The State of Populism: Introducing the 2023 Wave of the Populism and Political Parties Expert Survey

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Abstract

To understand the evolution of party-based populism, reliable and valid measurement is essential. This article presents the second wave of the Populism and Political Parties Expert Survey, capturing populism with a continuous, five-item multidimensional latent construct in 312 political parties across 31 European countries in 2023. We validate the approach through Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Item Response Theory (IRT). The IRT findings confirm the discriminatory power of the five items, while CFA results establish strict measurement invariance from 2018 to 2023, supporting cross-temporal comparisons. Substantively, we show that radical right parties remain the most populist, followed by the radical left, with both nativism and left-wing economic stances as robust predictors of populism. Overall, average populism levels declined from 2018 to 2023, largely due to decreases among parties with weaker nativist and authoritarian tendencies.

Note

- This document runs the Quarto file used to produce the paper. Please note that the written text in this document may differ slightly from the published version, as the latter has undergone copy editing.
- We provide the Quarto file to help readers understand the rationale behind the code in the context of the article.
- The R code can also be run from the accompanying R script file, which contains the same code exported from this Quarto document.

Introduction

Populist political parties are central actors in most European countries. In the last decade, populist parties appear more frequently across the left-right political spectrum and they are increasingly likely to participate in governing coalitions. Scholars have therefore increasingly scrutinized the behaviour of populist political parties, examining reasons for their success (Rooduijn 2015), their larger impact on party competition (Wolinetz and Zaslove 2018; Aichholzer et al. 2014), and their effects on (liberal) democracy (Mudde and Kaltwasser 2012; Huber and Schimpf 2017). While much of this literature started qualitatively, studies of populist parties have undertaken a quantitative

turn. A core requirement for solid quantitative studies is high quality data, ideally over time.

Recognizing these challenges, this paper introduces a new dataset: a second wave of the *Populism and Political Parties Expert Survey* (POPPA 2023). The first round of the POPPA expert survey (POPPA 2018) demonstrated that it was possible to use expert surveys to provide a valid and reliable measure of populist parties (Meijers and Zaslove 2021). POPPA 2023 continues the work of POPPA 2018 for the year 2023, while also including new items that measure party characteristics regarding democratic commitment, climate change, issue salience, party change, party views on the elite and the people, and political compromise. The dataset includes all relevant political parties in 28 countries in 2018 and 31 countries in 2023.[1]

POPPA 2023 follows the methodological approach of the first wave, building on the *multidimensional*, *continuous*, and *comprehensive* method for capturing populism. *Multidimensionality* refers to the use of five sub-dimensions of populism to produce an aggregate measure of populism. These sub-dimensions operationalize the ideational approach of populism. This approach differs from other expert surveys, which use a limited number of questions to measure populism. For example, the Chapel Hill Expert Survey (CHES) (Polk et al. 2017) uses a single anti-elitism question, while V-Party uses two questions, an anti-elitism and people-centrism question. The Global Party Survey (GPS) uses two approaches: a single question and individual items to measure populism (Norris 2020). However, unlike the latter, POPPA 2023, specifically operationalizes the ideational approach (Mudde 2004), treating populism as a latent variable that is measured by operationalizing each of the sub-dimensions of populism.

The *continuous* nature of the approach refers to the use of a continuous scale which measures degrees of populism. Measuring populism along a continuous scale implies that political parties are more or less populist and that they cannot be classified as simply populist or not populist. POPPA 2023 and POPPA 2018 differ in this regard from the approach put forward by the PopuList (Rooduijn et al. 2019), which uses a dichotomous measure of populism. Finally, the approach is *comprehensive*, providing a measure for every relevant party in parliament across European democracies. Whereas POPPA 2018 covered 249 parties in 28 countries, POPPA 2023 provides a measure of populism for 312 parties in 31 countries. The comprehensive nature of the data allows researchers to derive populism scores for all relevant parties in these European countries in 2018 and 2023, unlike other approaches which mainly code populist parties (such as the PopuList Rooduijn et al. 2019).

Expert surveys are a particularly valuable tool for assessing political parties' policy positions and

other traits or characteristics. This method allows researchers to deductively evaluate the *reputation* of political parties among experts, based on a predefined set of party features (Meijers and Wiesehomeier 2023). As a result, party positions and characteristics are captured at a high level of abstraction. The standardized nature of expert survey questions across countries and parties further enables meaningful cross-national and cross-party comparisons. In contrast, methods based on quantitative text analysis are more context-sensitive, reflecting the political and temporal circumstances in which the texts were produced (Hawkins 2009; Licht et al. 2025). While quantitative text analysis offers the advantage of processing large volumes of political texts—such as speeches, parliamentary debates, online posts, press releases, or manifestos—the content of these texts is highly dependent on their intended audience and context. For example, political actors tend to use more populist language in speeches than in party manifestos (Rooduijn and Pauwels 2011; Hawkins and Silva 2018). Hence, expert surveys are especially well-suited for collecting broadly comparable data across a wide array of parties and contexts. At the same time, expert survey data is less suitable for research questions that specifically aim to understand the role of particular audiences and political settings in shaping politicians' speech acts.

In this paper, we investigate data quality of POPPA. We do so first by scrutinizing the multidimensionality of the populism measure. We use exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and latent item response theory (IRT) to evaluate the multiple indicators used to measure the latent construct of populism. We then use invariance tests to evaluate the degree to which the measure performs equivalently across both waves. The paper then proceeds to illustrate the benefits of the continuous and the comprehensive approach. We use descriptive analysis of party families and OLS regression to highlight patterns between party families and regions and to focus on the predictors of populism, both contemporaneously and temporally.

The paper finds that the POPPA populism measure loads on a single dimension, verified via an exploratory factor analysis (EFA) and a confirmatory factor analysis (CFA). Item response theory (IRT) demonstrates the coverage and the discriminatory nature of the five populism items. Importantly, the paper finds that the populism measure is invariant across the two waves, implying that changes in populism scores can be interpreted as real changes in degrees of populism, contemporaneously and temporally.

The descriptive analysis demonstrates that the radical right party family is the most populist, followed by the radical left, while Christian democratic, Green and liberal parties are the least populist. The radical left, Christian democrats, social democratic, green and in particular conservatives and

liberal parties have become less populist in Wave 2. We also find distinctive differences between the regions among party families. OLS regression analysis demonstrates the degree to which nativism and left-wing economic positions remain robust predictors of higher degrees of populism. Importantly, the OLS regression models also show that political parties in Wave 2 are less populist than political parties in Wave 1, while nativism, and to a lesser degree authoritarianism, are stronger predictors of populism in Wave 2 than in Wave 1. However, this effect is largely driven by the decline in levels of populism among parties that are less nativist and less authoritarian.

The POPPA Approach: How to Measure Populism

POPPA 2023 includes items to operationalize the core features of the ideational approach (Mudde 2004, 2017; J.-W. Müller 2017): the people-elite distinction, the Manichean notion of politics, and the idea that the people are homogeneous and indivisible. POPPA 2023 uses the same five items to measure populism that were employed in the 2018 survey (see Table 1).[2]

The second wave of the Populism and Political Parties Expert Survey 2023 (POPPA 2023) was fielded between January 25, 2023 and May 24, 2023 in 31 countries.[3] In total, 850 experts were contacted, 324 fully completed the survey, with a response rate of 38 percent. POPPA 2023 is a continuation of POPPA 2018, repeating the core questions from POPPA 2018. Table A27 in the Online Appendix shows the mean, minimum and maximum number of experts per country. We use a base minimum of 4 experts per party per item. The mean for Wave 2 in 2023 is 8.87, with a maximum of 29 experts. The mean for Wave 1 in 2023 is 9.44, with a maximum of 18 responses. See the codebook for a closer breakdown of the number of experts per political party per item.

Table 1: Populist Items

Anti-Elitism: Some parties can be characterized by their attitudes toward the establishment and toward elites. This is often referred to as anti-elitism.
People-Centrism: Some parties are very people-centred and believe that sovereignty should lie exclusively with the ordinary people (i.e. the ordinary people, not the elites, should have a final say in politics).
General Will: Some parties consider the ordinary people's interests to be singular (i.e. one can speak of a general will).
Manichean: Some parties see politics as a moral struggle between good and bad. This is often described as a Manichean worldview.
Indivisible: Some parties consider the ordinary people to be indivisible (i.e. the people are seen as homogenous).

POPPA uses the thin-centered ideology definition of populism (Mudde 2004, 2017). The thin-centered nature of populism implies that populism does not cover a comprehensive worldview over a broad range of policy domains. As such, populism is usually combined with an attaching ideology. Populism differs in this regard from 'full' ideologies, such as liberalism and socialism. The thin-centered nature of populism implies that populist parties exist across the left-right political spectrum. In order to operationalize these attaching dimensions, POPPA 2023 also contains a series of expert survey items that measure left-right overall placement, left-right economic positions, positions regarding immigration, nativism, law and order, lifestyle[4] and party positions regarding European integration.

In addition, POPPA 2023 includes new items, measuring democratic commitment, climate change, issue salience, party change, party views on the elite and the people, and political compromise. These items are integrated into the POPPA 2023 dataset to address pressing research questions. The POPPA 2023 dataset is fully integrated with POPPA 2018, providing a measure for populism and attaching dimensions over two waves.[5]

Table 2 shows the summary statistics from Wave 2 and from Wave 1. The last column in the table shows the p-values for the t-tests, comparing items between the two waves. Summary statistics for the combined waves can be found in Table A1 in the Online Appendix. Based on the directly measured five sub-dimensions of populism, POPPA 2023 includes a populism variable derived from the mean as well as from the regression scores of CFA analysis (both standardized and rescaled), as we discuss below.

Table 2: Descriptive Statistics for Wave 2 and Wave 1

	Wave 2 (2023)			Wave 1 (2018)			
Variable	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**	**T-Test**
Populism (Mean)	305	4.8	2	236	5.1	1.9	0.05
Populism (CFA: Rescaled)	305	4.8	2.4	236	5.2	2.2	0.03
Populism (CFA: Standardized)	305	-0.14	1.7	236	0.18	1.6	0.03
Anti-Elitism	309	4.6	2.6	247	4.9	2.5	0.23
Genernal Will	307	4.8	2	239	5.2	2	0.03
Manichean	307	5.2	2	247	5.6	1.8	0.03
Indivisible	307	4.4	2	247	4.7	1.9	0.04
People Centrism	305	4.9	2.2	247	5.3	2	0.05
Left-Right Overall	309	5.3	2.5	249	5.3	2.4	0.78
Left-Right Economy	308	4.9	2.2	244	4.9	2.2	0.82
Immigration	304	5	2.5	245	4.5	2.3	0.05
Nativism	308	4.7	2.7	245	4.6	2.7	0.54
Authoritarian	299	4.8	2.6	238	4.8	2.5	0.85
Law and Order	304	5	2.3	238	4.9	2.5	0.85
Lifestyle	302	5.4	2.9	248	5.3	2.7	0.75
European Integration	305	6.1	2.8	247	5.9	2.7	0.27

Note: Welch two-sided t-test

The summary statistics in Table 2 show several interesting patterns.[6] First, we see that, on average, a picture of ideological stability emerges, i.e., the mean and the standard deviations are very similar between Wave 1 and Wave 2 (see also Whitefield et al. (2007)). In some cases, however, the mean values show statistically significant differences between the waves. These differences are related to populism and immigration. All three populism composite measures (the mean and the mean of the regression scores, standardized and rescaled) demonstrate lower populism scores for Wave 2, with p-values equal to or less than 0.05.[7] Further analysis of the latent mean of the populism variable also demonstrates that parties in Wave 2 are, on average, less populist than in Wave 1 (See Table 3).[8] Items measuring the general will, manicheanism, indivisible and people-centrism also exhibit lower scores, with p-values of less than 0.05. Immigration shows a mean value of 0.5 points higher in Wave 2, with a p-value of 0.05, implying that political parties have become slightly more favorable to immigration. We also see a slight increase in the level of nativism, but the difference value is not statistically significant.

Table 3: Latent Mean for Populism CFA

Variable	Estimate	Std. Error	p-value
Difference in Populism (Wave 2 - Wave 1)	-0.342	0.153	0.025

This initial examination of the data already points to some interesting patterns. First, there is considerable consistency between the two waves. As noted, the mean values and the standard deviations are comparable. However, there is also a small but statistically significant decline in populism between the waves and a marginal increase in support for immigration. We delve further into these changes below.

Populism as a Multidimensional and Latent Construct

The multidimensional nature of populism requires the use of multiple indicators to capture its sub-dimensions. In this section we ascertain whether these five items capture the latent construct of populism in both waves. First, we examine whether the five items form a single factor, namely populism. To this end, we use an exploratory factor analysis (EFA). This helps us to understand whether the five items load consistently on a single factor and whether the structure of the factor changes between the different waves. Second, we use a confirmatory factor analysis (CFA) to investigate how well the data fits the underlying theoretical concept. We subsequently employ an invariance test to further systematically test the structure of the factor across waves. Finally, item response theory (IRT) models allow us to investigate how informative the individual items are for the overall factor.

Exploratory Factor Analysis (EFA)

We start by scrutinizing whether the five items form one internally consistent factor. An EFA investigation usually starts by determining the number of potential factors. We anticipate a one-dimensional scale. Table 4 shows the results from the EFA for three models: for the full dataset as well as Wave 1 and Wave 2 separately. The results indicate that the data fits a single factor model. The individual factor loadings for the three models, indicate, however, slight differences between the waves. The factor loadings for anti-elitism and people-centrism demonstrate higher values in Wave 2, while the factor loadings for general will and indivisible are slightly higher in Wave 1.

Commonality and uniqueness scores also suggest that our data fits the one-factor solution well. Commonality scores capture the the amount of variance of the observed variable that is explained by the factor, while uniqueness scores show how much of the variance is unique or not explained by the factor. In other words, they capture, how well the factor explains the individual items. As such, it is desirable to obtain high commonality scores and low uniqueness scores. Despite the

general good fit of the data for all three models, Table 4 shows that commonality scores are slightly lower for Wave 1. This is especially the case for anti-elitism and to a lesser degree people-centrism. Uniqueness scores are also a touch higher for the same items in Wave 1. Nonetheless, we conclude that the data, for the full model and for the individual waves, fits a single factor well, despite these smaller discrepancies. To further tease out the relationship between the individual indicators and the populism construct we conduct a confirmatory factor analysis in the next section.

Table 4: Exploratory Factor Analysis

Variable	Factor 1	Communality	Uniqueness	Complexity
Full Dataset				
Anti-Elitism	0.91	0.829	0.171	1
People Centrism	0.92	0.846	0.154	1
Manichean	0.871	0.758	0.242	1
General Will	0.923	0.852	0.148	1
Indivisible	0.878	0.772	0.228	1
Wave 1				
Anti-Elitism	0.831	0.691	0.309	1
People Centrism	0.843	0.711	0.289	1
Manichean	0.852	0.725	0.275	1
General Will	0.951	0.904	0.096	1
Indivisible	0.905	0.819	0.181	1
Wave 2				
Anti-Elitism	0.941	0.885	0.115	1
People Centrism	0.951	0.905	0.095	1
Manichean	0.869	0.756	0.244	1
General Will	0.915	0.838	0.162	1
Indivisible	0.877	0.768	0.232	1

Confirmatory Factor Analysis (CFA)

The CFA provides a rigorous test of the latent structure by explicitly fitting a theoretical model and offering model fit statistics. We run CFA models on the full dataset (i.e. both waves) and in order to examine consistency over time we also conduct a multigroup CFA, allowing us to compare similarities and differences across waves.

Conducting a CFA is an iterative process. We start with a theoretically informed baseline model where all five items load on a latent populism concept, with no additional specifications. The initial model does not provide a good fit (CFI = 0.834, RMSEA = 0.461, SRMR = 0.048).[9] Most indicators, except the SRMR, fall below the threshold for an acceptable fit (CFI 0.95, RMSEA 0.05, SRMR 0.05; see: Hu and Bentler (1999)). Multigroup fit results are similar (see the tables Table A2, Table A18, Table A19; Table A20 in the Online Appendix).

To improve the model fit, we examine the modification indices and we take theoretical considerations

into account.[10] The modification indices suggest that adding a residual covariance for *general will* with *indivisible people* could improve the model fit. This adjustment yields better results (CFI = 0.963, RMSEA = 0.242, SRMR = 0.037), but the RMSEA remains high, indicating further adjustments are needed. We then add a residual covariance between *manicheanism* and *people-centrism* based on high modification indices, though this residual covariance reveals issues of negative correlation and multicollinearity. As such, we add a residual covariance for *people-centrism* and *anti-elitism*, based on the modification indices and on the idea that both are core aspects of populism (Mudde 2004). This model further improves the model fit (CFI = 0.983, SRMR = 0.012), but the RMSEA = 0.188 remains suboptimal.

Finally, we move to the last model: adding a third residual covariance between *manicheanism* and *anti-elitism* results in an excellent fit (CFI = 0.999, RMSEA =0.045, RMSEA.PVALUE = 0.453, SRMR = 0.004), with a non-significant Chi-squared, indicating minimal deviation between observed and predicted covariances. The multigroup model produces similar results (see Table 5 and Table 6).[11]

In summary, the use of CFA modeling demonstrates that the five items representing the sub-dimensions of populism effectively capture the latent construct of populism, with particularly robust performance when covariances between dimensions are included. The multigroup models also demonstrate a good fit across different waves, supporting consistency over time. To further validate this, we, however, conduct an invariance test to assess the stability of the populist structure across waves.

Table 5: CFA with Three Residual Covariances (Unstandardized Estimates)

	Model		
	Estimate	Std. Err.	p-value
	Factor Loadings		
Populism			
Manichean	1.00[+]		
General Will	1.09	0.04	0.000
People Centrism	1.09	0.04	0.000
Anti-Elitism	1.28	0.04	0.000
Indivisible	0.98	0.04	0.000
	Residual Covariances		
General Will w/Indivisible	0.49	0.07	0.000
People Centrism w/Anti-Elitism	0.91	0.09	0.000
Manichean w/Anti-Elitism	0.37	0.05	0.000
	Fit Indices		
CFI	1.00		
χ^2(df)	4.21(2)		0.122
RMSEA	0.05		
RMSEA.PVALUE	0.45		
SRMR	0.00		

[+]Fixed parameter
Note: All estimates are unstandardized.

Table 6: Multigroup CFA with Three Residual Covariances (Unstandardized Estimates)

	Wave 1 - 2018	Wave 2 - 2023
	Estimate(Std.Err.)	Estimate(Std.Err.)
	Factor Loadings	
Populism		
Manichean	1.00^{+}	1.00^{+}
General Will	1.12(0.06)***	1.06(0.04)***
People Centrism	1.09(0.06)***	1.10(0.05)***
Anti-Elitism	1.26(0.07)***	1.30(0.05)***
Indivisible	1.01(0.06)***	0.96(0.05)***
	Residual Covariances	
General Will w/Indivisible	0.53(0.12)***	0.44(0.09)***
People Centrism w/Anti-Elitism	1.08(0.15)***	0.77(0.11)***
Manichean w/Anti-Elitism	0.38(0.08)***	0.35(0.07)***
	Latent Variances	
Populism	2.59(0.31)***	3.18(0.33)***
	Fit Indices	
CFI	1.00	
χ^2(df)	6.75(4)	
RMSEA	0.05	
RMSEA.PVALUE	0.42	
SRMR	0.00	

$^{+}$Fixed parameter
* p<0.05, ** p<0.01, ***p<0.001
Note: All estimates are unstandardized.

Invariance Test

The summary statistics table (Table 2) and analysis of the latent mean (Table 3) indicate a decline in populism between the 2018 and 2023 waves. However, before interpreting these changes as meaningful, we must test whether experts in both waves interpreted the populism construct similarly, based on the five core items. We conduct an invariance test on our CFA models to assess four levels of invariance: configural, metric, scalar, and strict. Configural invariance confirms that factor loadings follow the same pattern across waves. Metric invariance means factor loadings are equivalent, scalar invariance ensures item intercepts are equal, and strict invariance requires that residual variances match across waves.

Our invariance test begins with the baseline model (without residual covariances) and proceeds to the final models with three residual covariances. The results for all models are shown in Table A21 in the Online Appendix. The baseline model achieves scalar invariance, while the models with one, two, and three residual covariances show evidence for strict invariance. This provides strong evidence that the populism measure is consistent across waves, even for the baseline model. Since all models show configural invariance, the factor loadings, including the number of factors and their patterns, remain consistent between waves. All models also demonstrate metric invariance, confirming that factor loadings are comparable between waves. Additionally, scalar invariance across models suggests that the item intercepts are equal across waves. The models which include residual covariances show

evidence for strict invariance, indicating that the residual variances match across the two waves. As such, we conclude that changes in levels of populism between waves likely reflect real changes in populism.

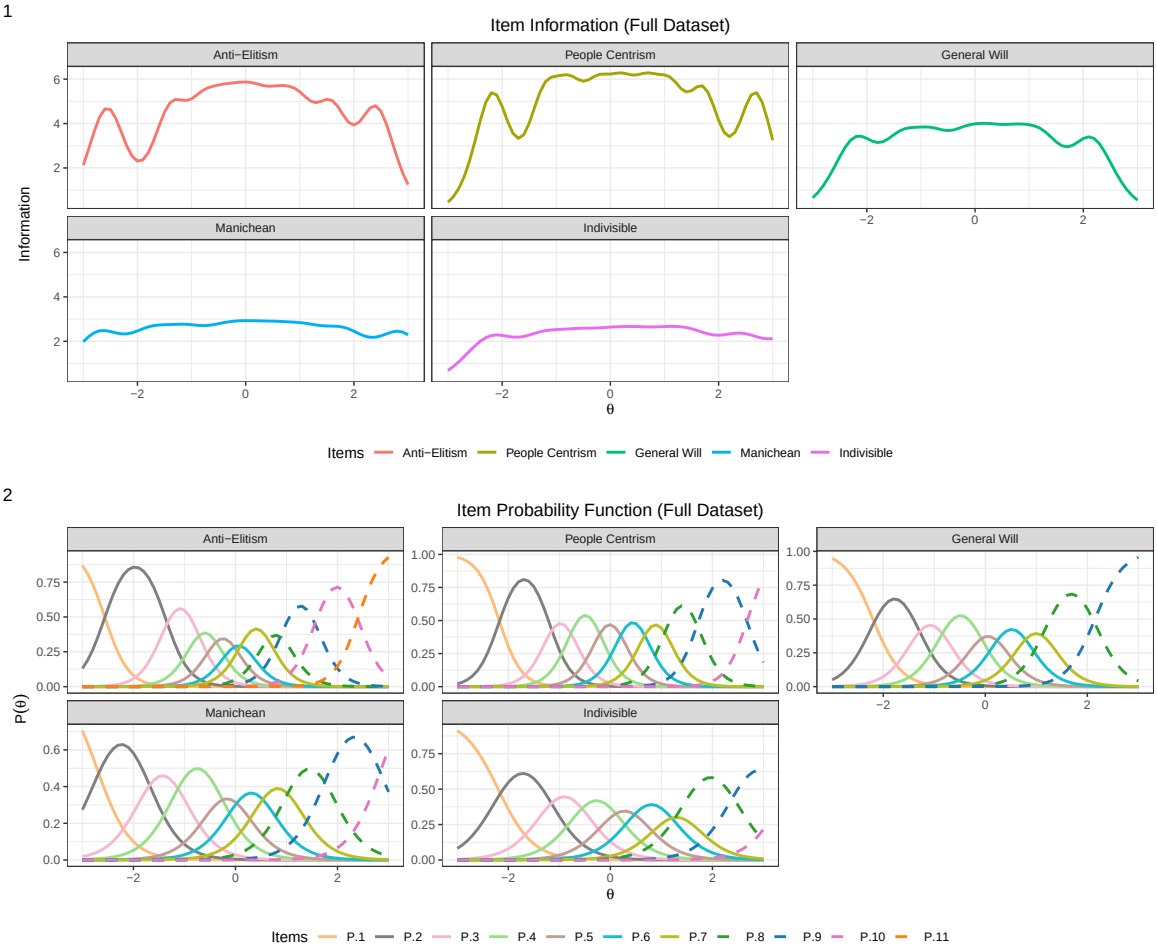
In sum, the combination of the CFA models and the invariance tests validate the latent construct of the multidimensional measure. The model with three residual covariances produces an excellent fit and the populism measure is invariance across the two waves. These findings show the additional benefits of the multidimensional and the continuous nature of our measurement. Only by constructing a latent variable, i.e., through the use of the sub-dimensions of populism, is it possible to test the extent to which the populist construct is invariant. Hence, to our knowledge, POPPA is the only existing populism scale that manages to achieve strict invariance.

Item Response Theory

Our analyses thus far confirm the scale's high quality, yet CFA offers limited insight into the discriminatory power of the five sub-dimensions of populism or the extent to which each item contributes to the overall latent structure. To address this, we apply item response theory (IRT), using a graded model appropriate for ordered data. Since graded models use discrete, ordered responses, we round the average expert judgments for each populist item to the nearest integer (De Ayala 2013; Samejima 1969).

The IRT models yield several important insights.[12] The Item Information plot (see Plot 1 in Figure 1) shows each item's contribution to the latent populist construct. The sharp peaks for *anti-elitism* and *people-centrism*, and to a lesser extent *general will*, suggest these items effectively discriminate among parties with different levels of populism. Meanwhile, the *manichean* and *indivisible* items, with lower peaks, provide broader curves, capturing information across lower populism levels. This is a common observation in populist attitudes research (Castanho Silva et al. 2020).

Figure 1



Plot 2 from Figure 1 presents the Item Probability Function for each sub-dimension. Some data loss is observed due to rounding, particularly at the highest scale levels, shown by the dashed lines (values 8–11).[13] The Item Probability Function reveals the levels at which parties are likely to endorse the latent trait and indicates how effectively each item differentiates between levels of the corresponding dimension. As expected, higher levels (8–10, equivalent to 7–9 on the original scale) contribute significantly to higher scores on the five sub-dimensions. Medium and lower levels function as anticipated, demonstrating that the sub-dimensions capture information well across the entire scale range.

In summary, the multidimensional and latent nature of populism necessitates using multiple indicators to measure populism accurately. Factor analyses (EFA and CFA) confirm the contributions of each dimension to the latent construct, while invariance tests validate the measure's consistency across waves. Finally, item response theory demonstrates the discriminatory character of the five

sub-dimensions and highlights each sub-dimension's contribution to the populism latent structure.

Populism: Trends and Transformations

An advantage of the continuous and comprehensive approach is it allows us to assess the degree of populism across all relevant parties, i.e. all parties that have seats in parliament. In the following section, we explore how populist ideation manifests itself across different parties and across the two waves of the expert survey.[14]

Party Families and Populism

Figure 2 uses violin plots to group political parties by populism according to party families, grouped by region. The violin plots show the density of the data points with the coloured dots representing political parties within the party families and the red dot representing the median. A wider plot indicates increased density and more concentrated values around the middle point of the data, while a more elongated violin plot indicates a broader distribution of the data points.

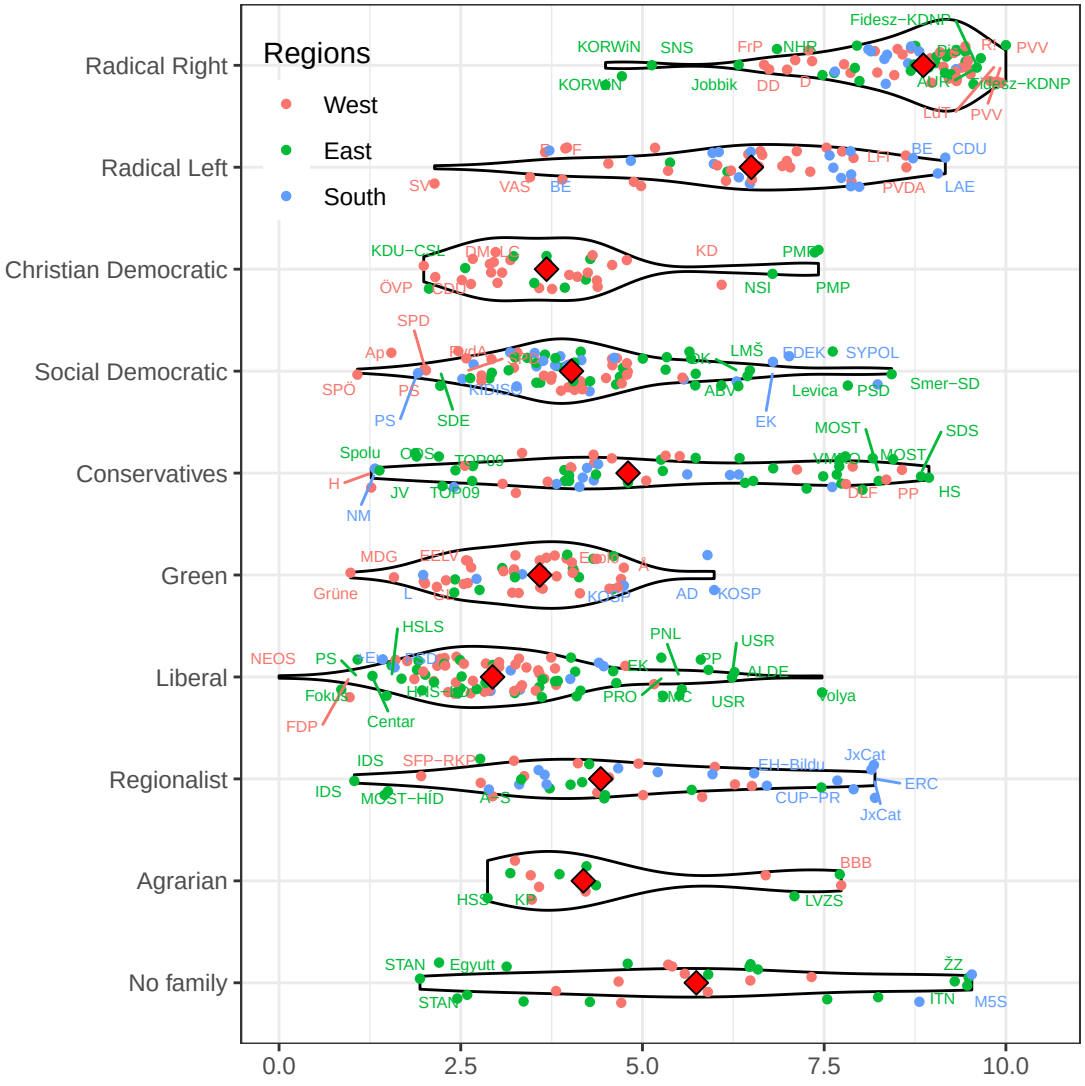
Figure 2 demonstrates that the radical right party family is the most populist of all party families. The median level of populism is the highest for the radical right, while also the values are the most concentrated for this party family. Several parties, however, distinguish themselves from the rest. This is especially the case at the lower end of the scale, indicating that there are some parties that are considered radical right which are less populist. Turning to the regional grouping of the parties, we see that the radical right parties that tend to score lower on the populism scale can be found in Central and Eastern Europe (CEE).

The radical left also has a higher median of populism than the other party families. However, in the case of the radical left there is more diversity among the parties regarding populism. The parties are less concentrated on the populism spectrum, since more parties score both considerably higher and lower along the populism scale. The radical left parties that score lower on the populism scale tend to be located in Southern Europe.

The continuous measure also allows for the assessment of the unusual suspects. Figure 2 shows that the Christian democratic, green and liberal party families have a lower median of populism. Again, the plot also highlights that there are higher values on both ends of the scale. Parties in CEE countries, once again, have a tendency to divert from the norm. A handful of Christian democratic, social democratic and liberal parties in CEE countries score higher on the populism scale than other

parties in their respective party families.

Figure 2: Degrees of Populism per Party Family



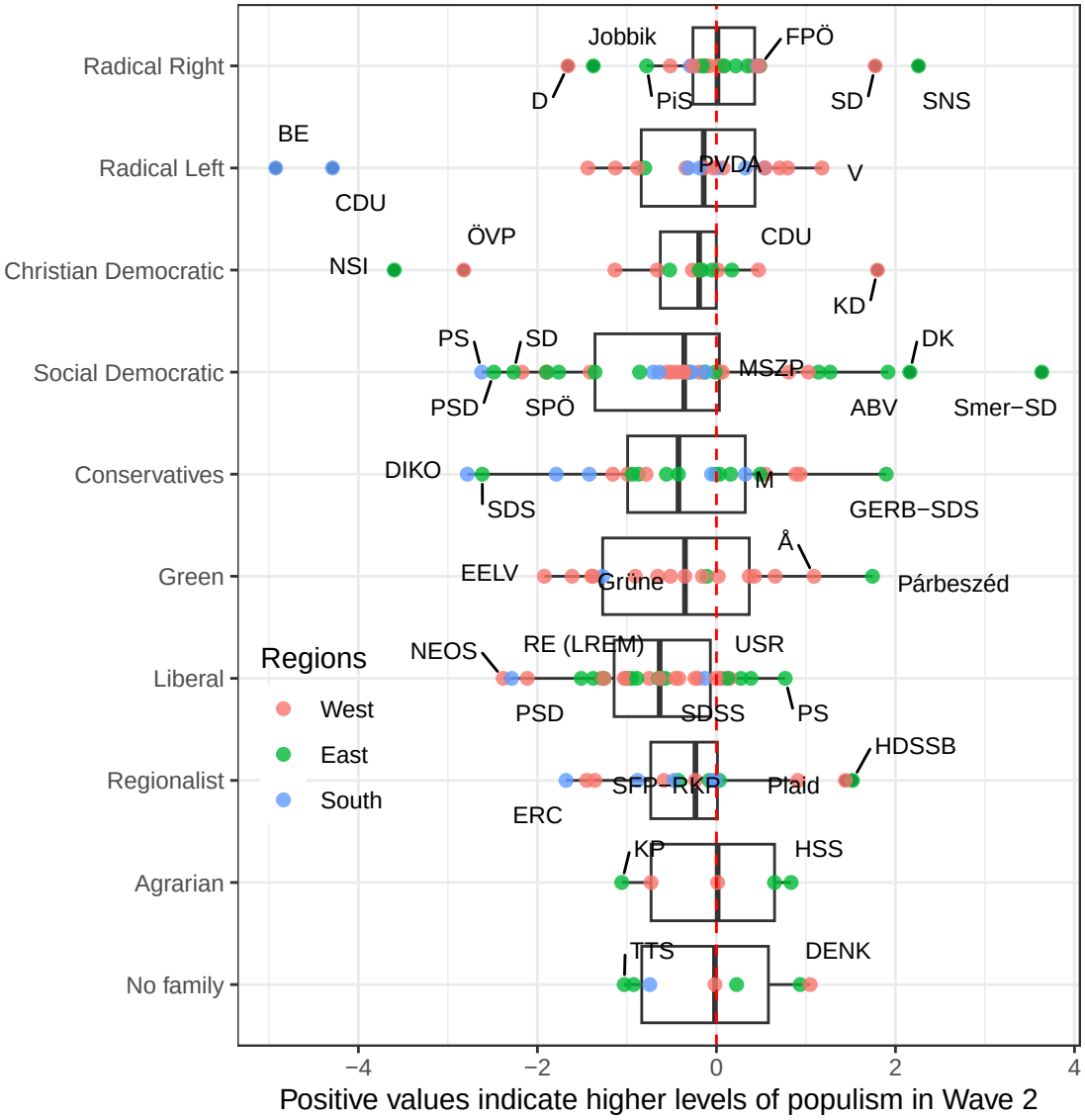
Given the temporal nature of the data we also use descriptive analysis to examine change over time. Figure 3 uses box plots to compare changes in the degree of populism between the waves among party families. We only include parties that were included in both waves. Higher values indicate higher populism scores for Wave 2 versus Wave 1. The dotted line indicates no change, while the solid line in the box indicates the median. We once again group the party parties by region.

Figure 3 highlights several patterns. First, while there has been no change in the median level of populism for radical right parties, the box representing the interquartile range for the radical right has increased, indicating that there has been a slight increase in the degrees of populism for this

party family. There is also considerable variation between radical right parties. Law and Justice (Pis) in Poland and Jobbik in Hungary have become marginally less populist, while the Sweden Democrats (SD) and the Slovak National Party (SNS) in Slovakia have become more populist.

For the rest of the party families, evident from the movement of the interquartile range, most party families have become less populist. Of particular note is the degree to which the radical left has become less populist, both in terms of the interquartile range and the median. The Bloc of the Left (BE) and the Unitary Democratic Coalition (CDU) in Portugal have become particularly less populist. It is, moreover, noteworthy the degree to which the conservatives, green and the liberal party families, in terms of interquartile range and median, have become less populist. In particular parties, such as the Renaissance party (RE / LREM) in France and the New Austria party (NEOS), both from the liberal party family, have become less populist, while the Austrian People's Party (ÖVP), from the Christian democratic party family also became less populist.

Figure 3: Comparing Populism per Waves per Party Family



The Evolution of Populism: Predictors Across Time

The nature of the data also allows us to focus on the predictors of populism. In this section, we once again focus on the contemporaneous and the temporal nature of the data. We begin with an OLS regression analysis on party positions. We are interested in the degree to which dimensions, i.e. attaching ideologies, continue to predict populism. To do so, we run four OLS regression models (See: Table 7). Given that we are also interested in differences between Wave 1 an Wave 2, we include a Wave-dummy variable in all models. All models include country fixed effects.

Model 1 regresses populism on nativism. Model 1 identifies a statistically significant and positive

relationship between nativism and populism. Higher levels of nativism are stronger predictors of populism. The coefficient for the wave dummy is also statistically significant and negative, implying that Wave 2 is less populist than Wave 1. Model 2 regresses populism on left-right economic positions. The coefficient for economic left-right positions is negative and statistically significant, indicating that parties that hold more left-wing economic positions are more likely to score higher on the populism scale. The coefficient for wave is negative but not statistically significant at the 0.05 point level. Model 3 includes a variable for authoritarianism, with higher values indicating that parties are more authoritarian.[15] Model 3 shows a positive and statistically significant effect for authoritarianism: an increase in authoritarianism indicates a greater likelihood that parties will be more populist. The coefficient for wave is negative and statistically significant.

Model 4 includes nativism and left-right economic positions. Since we include nativism in the model, due to issues of multicollinearity, we do not include authoritarianism. Both nativism and left-right economic positions are statistically significant. Nativism demonstrates a positive effect and the left-right measure of economic positions shows a negative effect, indicating that the less right-wing a party is, the greater the likelihood the party scores higher on the populism scale. Interestingly, the coefficient for the left-right economic variable more than doubles, compared to the value in Model 2. Including nativism in the model isolates the effect of left-right economic positions, emphasizing that more left-wing economic positions are stronger predictors of populism, when controlling for nativism. In addition, when nativism and authoritarianism are included in the models, the coefficient for wave is negative and it is statistically significant.

Table 7: Populist Party Characteristics

	Model 1	Model 2	Model 3	Model 4
Nativism	0.557***			0.694***
	(0.028)			(0.024)
Authoritarianism			0.516***	
			(0.034)	
Left-Right Economy		−0.176***		−0.478***
		(0.045)		(0.029)
Wave 2	−0.401**	−0.337+	−0.343*	−0.390**
	(0.154)	(0.202)	(0.172)	(0.125)
(Intercept)	1.806***	4.617***	1.940***	3.443***
	(0.510)	(0.717)	(0.570)	(0.443)
Num.Obs.	538	538	532	537
R2	0.498	0.128	0.386	0.671

With country fixed effects
Standard errors are shown in parentheses
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

All in all, Models 1-4 illustrate that nativism, authoritarianism, and more left-wing economic posi-

tions are strong predictors of populism, also indicated by the high R2 for both Model 1 and Model 4 (also see Huber, Jankowski, and Juen 2023). In addition, the models also highlight the temporal element of the data. The coefficient for wave in Model 1, 3 and 4 is negative and statistically significant when nativism and authoritarianism are included in the models. In other words, after controlling for nativism or authoritarianism, political parties became less populist in Wave 2, suggesting that parties with lower levels of nativism and authoritarianism have become less populist over the two waves.

Populism Across Waves: Shifts and Continuities

The results thus suggest that there are differences in parties' degree of populism between the waves. We now examine more in depth how populism has decreased (or increased) between the waves. Table 8 shows 7 OLS regression models. The first model regresses populism on the wave dummy. Models 2 and 3 regress populism on nativism, left-right economic positions with interaction terms for the wave dummy and nativism and for the wave dummy and left-right economic positions. In Model 4, we interact the wave dummy with authoritarianism. Models 5, 6 and 7 reproduce these models, however, we run these models on data that only includes parties that appear in both waves. We do so to test the degree to which our results from the first four models are driven by sample composition. It could, for example, be that changes between the waves emanates from the fact that we have different parties in Wave 2 than in Wave 1. Nativism, left-right economy and authoritarianism are mean-centered in all models.

Table 8: Interaction with Wave

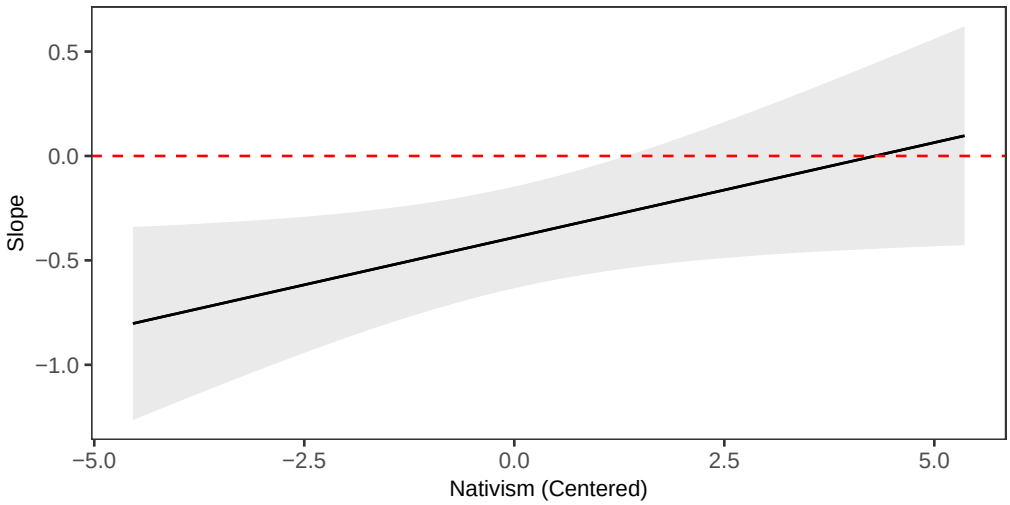
	Model 1 (FD)	Model 2 (FD)	Model 3 (FD)	Model 4 (FD)	Model 5 (DSP)	Model 6 (DSP)	Model 7 (DSP)
Wave 2	−0.362+	−0.390**	−0.391**	−0.320*	−0.356	−0.391**	−0.337*
	(0.206)	(0.124)	(0.125)	(0.150)	(0.225)	(0.130)	(0.167)
Nativism (Ctr)		0.643***	0.694***			0.664***	
		(0.034)	(0.024)			(0.036)	
LR Economy (Ctr)		−0.478***	−0.510***	−0.434***		−0.490***	−0.442***
		(0.029)	(0.043)	(0.035)		(0.032)	(0.041)
Authoritarianism (Ctr)				0.586***			0.590***
				(0.046)			(0.052)
Wave 2 x Nativism (Ctr)		0.091*				0.094+	
		(0.044)				(0.048)	
Wave 2 x LR Economy (Ctr)			0.055				
			(0.055)				
Wave 2 x Authoritarianism (Ctr)				0.108+			0.100
				(0.058)			(0.067)
(Intercept)	4.165***	4.320***	4.323***	4.206***	3.739***	4.331***	4.179***
	(0.666)	(0.417)	(0.419)	(0.501)	(0.701)	(0.405)	(0.517)
Num.Obs.	541	537	537	530	391	390	387
R2	0.098	0.674	0.672	0.534	0.143	0.715	0.538

With country fixed effects; FD: Full dataset; DSP: Dataset with shared parties
Standard errors are shown in parentheses
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

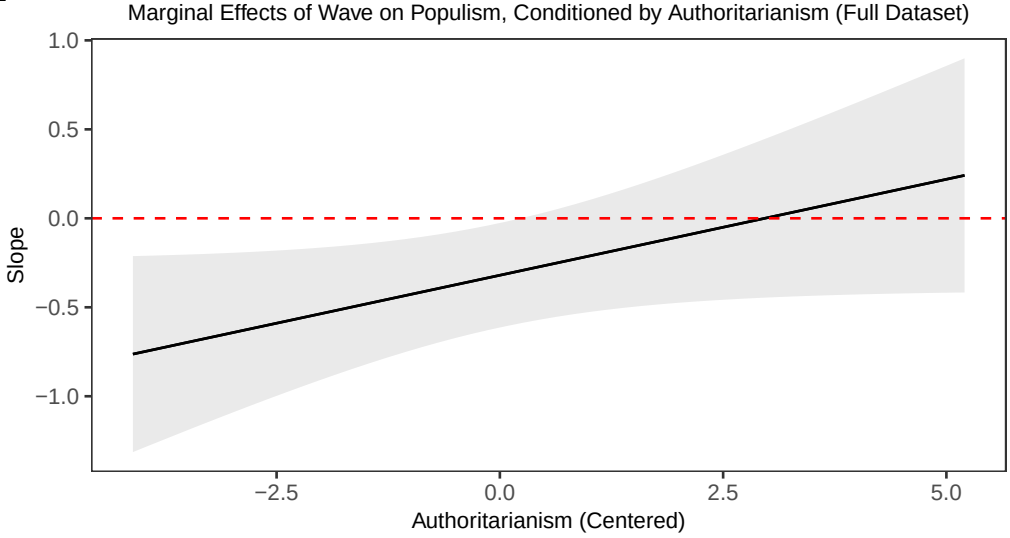
The coefficient for wave in Model 1 is negative, implying that Wave 2 is less populist than Wave 1. The coefficient is, however, only statistically significant at a p-value of less than 0.10. The interaction term for wave and nativism in Model 2 is statistically significant with a p-value of less than 0.05. Nativism is a stronger predictor of populism in Wave 2. The interaction term for wave and left-right economic positions in Model 3 is not statistically significant. Model 4 also demonstrates a positive interaction effect for wave and authoritarianism, but only with a p-value of 0.10. Models 5 through 7 include only parties that are present in both waves. The coefficient for wave in model 5 is negative but not statistically significant. In Model 6 the interaction term for wave and nativism is positive, with a p-value of 0.051, i.e just above the common 0.05 threshold. For Model 7 the interaction term for wave and authoritarianism is not statistically significant.

Figure 4: Marginal Effects for Interaction Effects

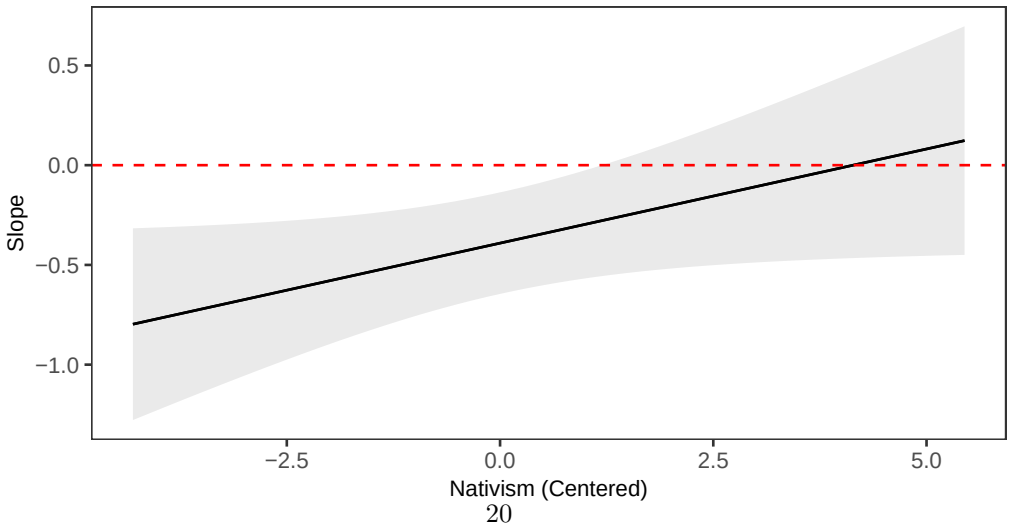
1



2



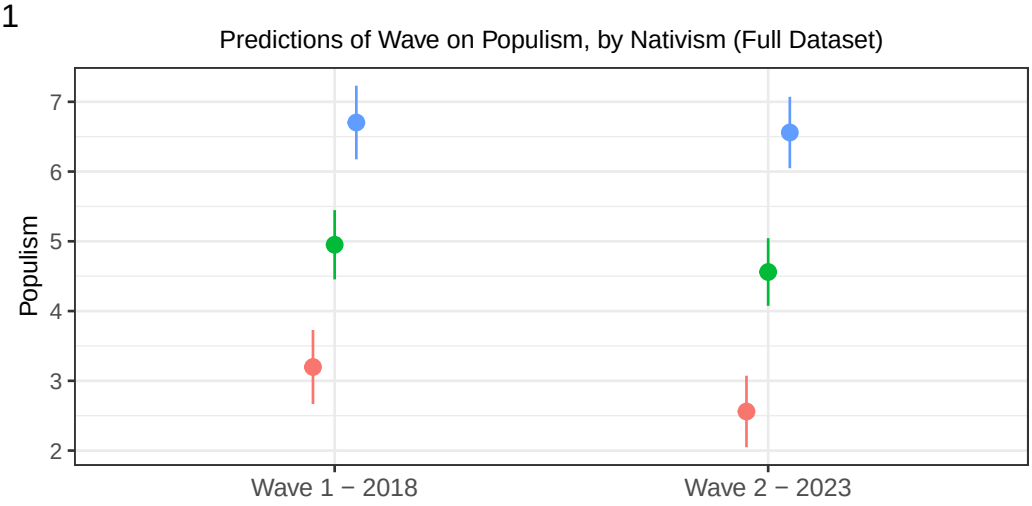
3



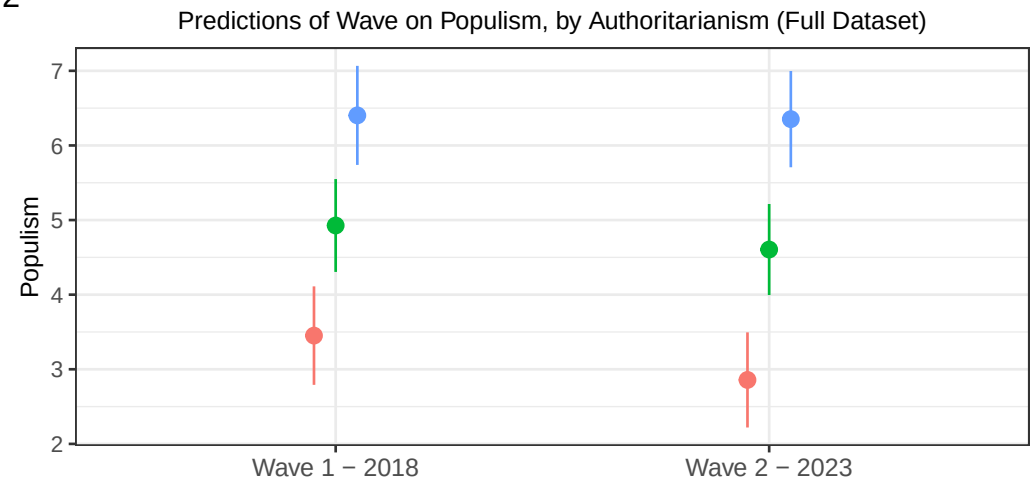
To better visualize the interaction effects, we plot the marginal effects and the predictions (Figure 4; Figure 5). We visualize the interaction effects for both nativism and authoritarianism.[16] The marginal effects plots show that the slope (magnitude) of nativism and authoritarianism on populism increases with Wave 2. However, the effect is not statistically significant for the higher values, the confidence intervals cross zero. The lower levels of nativism and authoritarianism are, however, statistically significant. In other words, the negative effect of wave 2 (in comparison with wave 1) is stronger for political parties that are less nativist and less authoritarian. These findings are statistically significant. The prediction plots visualize the same results in a different manner. These plots also highlight that lower levels of nativism and authoritarianism are less populist. However, these plots nicely show that this becomes even more pronounced in Wave 2. In other words, political parties that are less nativist and less authoritarian are less populist in Wave 2 than in Wave 1.

Figure 5: Predictions for Interaction Effects

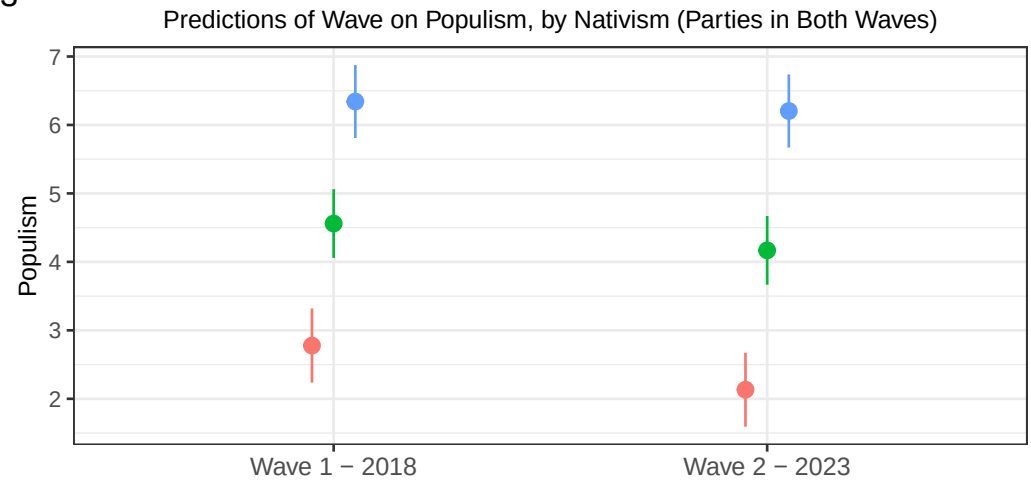
1

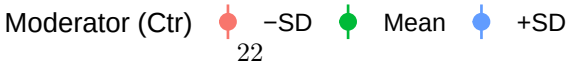


2



3





We draw three conclusions. First, the increased predictive power of nativism (and to a lesser degree for authoritarianism) for populism in Wave 2 over Wave 1 stems, in a large part, from the difference between the parties that score higher on nativism and authoritarianism and parties that score lower on nativism and authoritarianism. Second, we conclude that the level of populism among parties that are less nativist and less authoritarian has decreased in Wave 2, such as liberal, Green and radical left parties. These results confirm the findings from Table 7, showing that political parties were less populist in Wave 2 than in Wave 1, when controlling for nativism and authoritarianism. And third, these findings hold true for nativism when we include only parties that are in both waves, avoiding sample composition effects. In sum, we conclude that parties that are less nativist (and to a lesser degree less authoritarian) have become less populist in Wave 2 in comparison with Wave 1.

Conclusion

This study developed and validated a robust, multidimensional measure of populism in European political parties over time, addressing the need for reliable longitudinal data on party-based populism. By introducing the second wave of the Populism and Political Parties Expert Survey (POPPA), we offer a comprehensive measure that captures populism in 312 parties across 31 European countries for 2023.

We have argued that populism is a complex latent phenomenon that spans multiple dimensions, requiring a multidimensional approach with multiple indicators to capture it. Each indicator must capture essential elements of populism to ensure the quality of the latent construct. This approach allows us to account for populism's attachment to diverse ideological leanings and dimensions. Thus, we posit that the multidimensional, continuous, and comprehensive approach is most suited for measuring and assessing populism's empirical implications.

The POPPA 2023 populism measure operationalizes the core elements of the ideational approach. Our analysis demonstrates that each of the five sub-dimensions in POPPA 2023 exhibits consistent loading patterns, ensures broad coverage, has strong discriminatory power, and strict measurement invariance across survey waves, supporting the validity of a multidimensional approach.

Our analysis confirms that radical right and radical left party families are more populist than other groups, while specific party families—such as Christian democratic, green, and liberal parties—score lower on the populism scale. Additionally, regional differences emerge: some radical right parties in Central and Eastern Europe are generally less populist than those elsewhere, while some radical

left parties in Southern Europe exhibit higher levels of populism. Differences in populism among Christian democratic, social democratic, and liberal parties in Central and Eastern Europe suggest that regional factors influence how populism attaches to these parties. While our regional analysis is descriptive, we encourage further research into the role of POPPA 2023 in uncovering regional variations in populism.

We also use POPPA 2023 to explore the ideological predictors of populism. Nativism, authoritarianism, and more left-wing economic positions remain strong predictors of populism. The analysis of changes in degrees of populism between the two waves shows that there are overall declines in the level of populism between the waves. The descriptive analysis shows that conservatives, social democratic, Green and liberal parties have become less populist, while the OLS regression analysis demonstrates that political parties that are less nativist and less authoritarian are less populist in Wave 2. Nativism and authoritarianism are stronger predictors of populism in Wave 2. However, this effect is largely driven by the decline in levels of populism among parties that are less nativist and less authoritarian.

In sum, this paper underscores the strengths of POPPA 2023's multidimensional, continuous, and comprehensive approach. This approach facilitates in-depth comparisons across party families and regions and tracks changes in populism's predictors between waves. We encourage researchers to leverage this multidimensional framework to investigate pressing questions on populism and political parties within what researchers refer to as the "populist Fourth Wave" (Mudde (2017)).

Notes

1. Fewer countries were included in 2018 compared to 2023 due too low number of responses in several countries. Due to an oversight, Democratic Rally (DISY) from Cyprus was not included in Wave 2 (2023). This oversight will be corrected in subsequent versions of the data.
2. The wording for the anti-elitism question is slightly different in 2023 in comparison with 2018. See the codebook for more details. POPPA 2018 also contained items that measured populism as a style and populism as a strategy. However, POPPA 2023 focuses exclusively on the ideational approach.
3. Originally, two separate surveys were fielded in Flanders and in Walloon, but were subsequently merged under Belgium.
4. Lifestyle measure degrees of moral conservatism vis-a-vis more liberal positions.
5. The integrated dataset also includes several variables from the 2018 dataset that were not repeated in the newer version. These include measures for complexity, emotional appeals, intra-party democracy, and personalized leadership.
6. This paper was written and the analyses were conducted using Quarto. Analyses were conducted using R (version 4.5.1) and RStudio (2025.5.0.496). The following R packages were used for statistical analysis, table generation, and visualization: R (R Core Team 2025), conflicted (Wickham 2023a), dplyr (Wickham et al. 2023), forcats (Wickham 2023b), ggplot2 (Wickham et al. 2025; Wickham 2016), ggrepel (Slowikowski 2024), GPArotation (C. Bernaards, Gilbert, and Jennrich 2025; C. A. Bernaards and Jennrich 2005), here (K. Müller 2020), kableExtra (Zhu 2024), lattice (Sarkar 2025, 2008), lavaan (Rosseel, Jorgensen, and De Wilde 2024; Rosseel 2012), lubridate (Spinu, Grolemund, and Wickham 2024; Grolemund and Wickham 2011), marginaleffects (Arel-Bundock 2025a; Arel-Bundock, Greifer, and Heiss 2024), mirt (P. Chalmers 2025; R. P. Chalmers 2012), modelsummary (Arel-Bundock 2025b, 2022), patchwork (Pedersen 2025), psych (Revelle 2025), purrr (Wickham and Henry 2025), readr (Wickham, Hester, and Bryan 2024),

semTable (Johnson and Kite 2020), sjmisc (Lüdecke 2024, 2018), stringr (Wickham 2023c), tibble (K. Müller and Wickham 2025), tidyr (Wickham, Vaughan, and Girlich 2024), tidyverse (Wickham 2023d; Wickham et al. 2019), vtable (Huntington-Klein 2024), and xtable (Dahl et al. 2019).

7. The mean of the regression scores represents the difference between the overall mean from both waves and the mean from the individuals waves.

8. In order to estimate the change in the latent mean across waves, we run a multigroup confirmatory factor analysis. We constrain the factor loadings and the item intercepts to be equal across the waves, i.e. a scalar model. The latent means of the first group (Wave 1) are fixed to zero. The latent means of the second group (Wave 2) are estimated relative to the baseline of the first group (Wave 1). This allows us to assess the degree of change between the latent construct in Wave 1 and Wave 2. This provides the mean for the latent factor of the specific wave. The analysis shows that there is a 0.342 standard deviation decline in the latent mean of populism in Wave 2, with a p-value of 0.025, indicating a small to moderate effect size.

9. Fit statistics in reported in tables are rounded to two decimal points.

10. The process is outlined more in more detail in Table A10, Table A11, Table A13, Table A14 in the Online Appendix.

11. Tables with full results from the CFA models, including the multigroup models, can be found in the Online Appendix. In the text we provide unstandardized estimates. Standardized estimates for all CFA models, with the exception of the multigroup models can be found in the Online Appendix.

12. Following standard practice, we set Theta values between -3 and 3. The actual IRT values for this data range between -1.9708 and 2.5232.

13. Each dimension is measured on an 11-point scale from 0 to 10. The mirt package used to run these models scales the plots from 1 to 11.

14. In the analyses below, we use the regression scores from the CFA model with 3 residual covariances. We rescale the CFA regression scores from 0 to 10. As such, caution is needed when comparing the rescaled CFA regression scores with the mean of the five items. Rescaling the CFA regression scores stretches the scale, slightly inflating, or in some case deflating, the values. The advantage of the CFA regression scores is, however, that they account for measurement error, as indicated by the better fit achieved when using residual covariances. Moreover, the CFA regression scores assign different weights to the individual factor loadings. Items with higher loadings are given more weight. In the Online Appendix, we also run the analysis with the populism variable created from the mean of the five items. See Table A1 for descriptives regarding populism CFA variable, and for comparisons with the mean populism variable.

15. The authoritarian variable combines the lifestyle and law and order items. The item measuring lifestyle is reversed and combined with the law and order item, creating an item that measures authoritarianism (See Table A23 for item correlations).

16. Although the interaction effect for wave and authoritarianism are only statistically significant with a p-value of 0.10 and the interaction term for wave and nativism in model 6 is just above 0.05, following Brambor, Clark, and Golder (2006) we further investigate whether there is a statistically significant effect for a particular range of the variables.

References

Aichholzer, Julian, Sylvia Kritzinger, Markus Wagner, and Eva Zeglovits. 2014. "How Has Radical Right Support Transformed Established Political Conflicts? The Case of Austria." *West European Politics* 37 (1): 113–37. https://doi.org/10.1080/01402382.2013.814956.

Arel-Bundock, Vincent. 2022. "modelsummary: Data and Model Summaries in R." *Journal of Statistical Software* 103 (1): 1–23. https://doi.org/10.18637/jss.v103.i01.

———. 2025a. *Marginaleffects: Predictions, Comparisons, Slopes, Marginal Means, and Hypothesis Tests*. https://marginaleffects.com/.

———. 2025b. *Modelsummary: Summary Tables and Plots for Statistical Models and Data: Beautiful, Customizable, and Publication-Ready*. https://modelsummary.com.

Arel-Bundock, Vincent, Noah Greifer, and Andrew Heiss. 2024. "How to Interpret Statistical Models Using marginaleffects for R and Python." *Journal of Statistical Software* 111 (9): 1–32. https://doi.org/10.18637/jss.v111.i09.

Bernaards, Coen A., and Robert I. Jennrich. 2005. "Gradient Projection Algorithms and Software for Arbitrary Rotation Criteria in Factor Analysis." *Educational and Psychological Measurement* 65: 676–96. https://doi.org/10.1177/0013164404272507.

Bernaards, Coen, Paul Gilbert, and Robert Jennrich. 2025. *GPArotation: Gradient Projection Factor Rotation*. https://optimizer.r-forge.r-project.org/GPArotation_www/.

Brambor, Thomas, William Roberts Clark, and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14 (1): 63–82. https://www.cambridge.org/core/journals/political-analysis/article/understanding-interaction-models-improving-empirical-analyses/9BA57B3720A303C61EBEC6DDFA40744B.

Castanho Silva, Bruno, Sebastian Jungkunz, Marc Helbling, and Levente Littvay. 2020. "An Empirical Comparison of Seven Populist Attitudes Scales." *Political Research Quarterly* 73 (2): 409–24. https://doi.org/10.1177/1065912919833176.

Chalmers, Phil. 2025. *Mirt: Multidimensional Item Response Theory*. https://philchalmers.github.io/mirt/.

Chalmers, R. Philip. 2012. "mirt: A Multidimensional Item Response Theory Package for the R Environment." *Journal of Statistical Software* 48 (6): 1–29. https://doi.org/10.18637/jss.v048.i06.

Dahl, David B., David Scott, Charles Roosen, Arni Magnusson, and Jonathan Swinton. 2019. *Xtable: Export Tables to LaTeX or HTML*. http://xtable.r-forge.r-project.org/.

De Ayala, Rafael Jaime. 2013. *The Theory and Practice of Item Response Theory*. Guilford Publications. https://books.google.nl/books?hl=nl&lr=&id=NchXAQAAQBAJ&oi=fnd&pg=PP1&dq=De+Ayala,+R.+J.+(2009).+The+Theory+and+Practice+of+Item+Response+Theory.+Guilford+Press.&ots=Xg9LAJZHIy&sig=hcsvE3aBGALZ1e_ohaJuyZQwjok.

Grolemund, Garrett, and Hadley Wickham. 2011. "Dates and Times Made Easy with lubridate." *Journal of Statistical Software* 40 (3): 1–25. https://www.jstatsoft.org/v40/i03/.

Hawkins, Kirk A. 2009. "Is Chávez Populist?: Measuring Populist Discourse in Comparative Perspective." *Comparative Political Studies* 42 (8): 1040–67. https://doi.org/10.1177/0010414009331721.

Hawkins, Kirk A., and Bruno Castanho Silva. 2018. "Textual Analysis: Big Data Approaches." In *The Ideational Approach to Populism*, 27–48. Routledge. https://www.taylorfrancis.com/chapters/edit/10.4324/9781315196923-2/textual-analysis-kirk-hawkins-bruno-castanho-silva.

Hu, Li-tze, and Peter M. Bentler. 1999. "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives." *Structural Equation Modeling: A Multidisciplinary Journal* 6 (1): 1–55. https://doi.org/10.1080/10705519909540118.

Huber, Robert A., Michael Jankowski, and Christina-Marie Juen. 2023. "Populist Parties and the Two-dimensional Policy Space." *European Journal of Political Research* 62 (3): 989–1004. https://doi.org/10.1111/1475-6765.12569.

Huber, Robert A., and Christian H. Schimpf. 2017. "On the Distinct Effects of Left-Wing and Right-Wing Populism on Democratic Quality." *Politics and Governance* 5 (4): 146–65. https://www.cogitatiopress.com/politicsandgovernance/article/view/919.

Huntington-Klein, Nick. 2024. *Vtable: Variable Table for Variable Documentation*. https://nickch-k.github.io/vtable/.

Johnson, Paul, and Benjamin Kite. 2020. *semTable: Structural Equation Modeling Tables*. https://doi.org/10.32614/CRAN.package.semTable.

Licht, Hauke, Tarik Abou-Chadi, Pablo Barberá, and Whitney Hua. 2025. "Measuring and Understanding Parties' Anti-elite Strategies." *The Journal of Politics* 87 (1): 275–90. https://doi.org/10.1086/730711.

Lüdecke, Daniel. 2018. "Sjmisc: Data and Variable Transformation Functions." *Journal of Open Source Software* 3 (26): 754. https://doi.org/10.21105/joss.00754.

———. 2024. *Sjmisc: Data and Variable Transformation Functions*. https://strengejacke.github.io/sjmisc/.

Meijers, Maurits J., and Nina Wiesehomeier. 2023. "Expert Surveys in Party Research." In *The Routledge Handbook of Political Parties*, 466–77. Routledge. https://www.taylorfrancis.com/chapters/edit/10.4324/9780429263859-48/expert-surveys-party-research-maurits-meijers-nina-wiesehomeier.

Meijers, Maurits J., and Andrej Zaslove. 2021. "Measuring Populism in Political Parties: Appraisal of a New Approach." *Comparative Political Studies* 54 (2): 372–407. https://doi.org/10.1177/0010414020938081.

Mudde, Cas. 2004. "The Populist Zeitgeist." *Government and Opposition* 39 (4): 541–63. https:

//www.cambridge.org/core/journals/government-and-opposition/article/populistzeitgeist/2CD34F8B25C4FFF4F322316833DB94B7.

———. 2017. *An Ideational Approach*. Vol. 27. Oxford University Press Oxford. https://books.google.nl/books?hl=nl&lr=&id=X8Q9DwAAQBAJ&oi=fnd&pg=PA27&dq=ideational+approach+populism+mudde&ots=6OxsItOYXn&sig=T9z16caJ3xhkhow7UJecfmltLs0.

Mudde, Cas, and Cristóbal Rovira Kaltwasser. 2012. *Populism in Europe and the Americas: Threat or Corrective for Democracy?* Cambridge University Press. https://books.google.com/books?hl=nl&lr=&id=cRy2H220Gi4C&oi=fnd&pg=PR9&dq=mudde+kaltwasser+populism+democracy&ots=YRiDD5qf3I&sig=2Uyj1Bdu_ByHrrc1zCibvinO8QA.

Müller, Jan-Werner. 2017. *What Is Populism?* Penguin UK. https://books.google.nl/books?hl=nl&lr=&id=nv0tDwAAQBAJ&oi=fnd&pg=PT6&dq=jan+werner+muller+populism&ots=cIQEHz0zrb&sig=PsucjPBVRXIRPBfPHHYBdzVSfPo.

Müller, Kirill. 2020. *Here: A Simpler Way to Find Your Files*. https://here.r-lib.org/.

Müller, Kirill, and Hadley Wickham. 2025. *Tibble: Simple Data Frames*. https://tibble.tidyverse.org/.

Norris, Pippa. 2020. "Measuring Populism Worldwide." *Party Politics* 26 (6): 697–717. https://doi.org/10.1177/1354068820927686.

Pedersen, Thomas Lin. 2025. *Patchwork: The Composer of Plots*. https://patchwork.data-imaginist.com.

Polk, Jonathan, Jan Rovny, Ryan Bakker, Erica Edwards, Liesbet Hooghe, Seth Jolly, Jelle Koedam, et al. 2017. "Explaining the Salience of Anti-Elitism and Reducing Political Corruption for Political Parties in Europe with the 2014 Chapel Hill Expert Survey Data." *Research & Politics* 4 (1): 205316801668691. https://doi.org/10.1177/2053168016686915.

R Core Team. 2025. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.

Revelle, William. 2025. *Psych: Procedures for Psychological, Psychometric, and Personality Research*. https://personality-project.org/r/psych/.

Rooduijn, Matthijs. 2015. "The Rise of the Populist Radical Right in Western Europe." *European View* 14 (1): 3–11. https://doi.org/10.1007/s12290-015-0347-5.

Rooduijn, Matthijs, and Teun Pauwels. 2011. "Measuring Populism: Comparing Two Methods of Content Analysis." *West European Politics* 34 (6): 1272–83. https://doi.org/10.1080/01402382.2011.616665.

Rooduijn, Matthijs, Stijn Van Kessel, Caterina Froio, Andrea Pirro, Sarah De Lange, Daphne Halikiopoulou, Paul Lewis, Cas Mudde, and Paul Taggart. 2019. "The PopuList: An Overview of Populist, Far Right, Far Left and Eurosceptic Parties in Europe." https://centaur.reading.ac.uk/89065/.

Rosseel, Yves. 2012. "lavaan: An R Package for Structural Equation Modeling." *Journal of Statistical Software* 48 (2): 1–36. https://doi.org/10.18637/jss.v048.i02.

Rosseel, Yves, Terrence D. Jorgensen, and Luc De Wilde. 2024. *Lavaan: Latent Variable Analysis*. https://lavaan.ugent.be.

Samejima, Fumiko. 1969. "Estimation of Latent Ability Using a Response Pattern of Graded Scores." *Psychometrika* 34 (S1): 1–97. https://www.cambridge.org/core/journals/psychometrika/article/estimation-of-latent-ability-using-a-response-pattern-of-graded-scores/87C005F61264FD8360992A8D0FC3FDE0.

Sarkar, Deepayan. 2008. *Lattice: Multivariate Data Visualization with r*. New York: Springer. http://lmdvr.r-forge.r-project.org.

———. 2025. *Lattice: Trellis Graphics for r*. https://lattice.r-forge.r-project.org/.

Slowikowski, Kamil. 2024. *Ggrepel: Automatically Position Non-Overlapping Text Labels with Ggplot2*. https://ggrepel.slowkow.com/.

Spinu, Vitalie, Garrett Grolemund, and Hadley Wickham. 2024. *Lubridate: Make Dealing with Dates a Little Easier*. https://lubridate.tidyverse.org.

Whitefield, Stephen, Milada Anna Vachudova, Marco R. Steenbergen, Robert Rohrschneider, Gary Marks, Matthew P. Loveless, and Liesbet Hooghe. 2007. "Do Expert Surveys Produce Consistent Estimates of Party Stances on European Integration? Comparing Expert Surveys in

the Difficult Case of Central and Eastern Europe." *Electoral Studies* 26 (1): 50–61. https://www.sciencedirect.com/science/article/pii/S0261379406000369?casa_token=SMqI5ViqyOsAAAAA:BUmDEI4az6sTnFeG_z69WWppNuDnnSdnAKkfNjUC6j5Zyci3rvRIMRMpl-1LojiUZBtwJ8G_bLk.

Wickham, Hadley. 2016. *Ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag New York. https://ggplot2.tidyverse.org.

———. 2023a. *Conflicted: An Alternative Conflict Resolution Strategy*. https://conflicted.r-lib.org/.

———. 2023b. *Forcats: Tools for Working with Categorical Variables (Factors)*. https://forcats.tidyverse.org/.

———. 2023c. *Stringr: Simple, Consistent Wrappers for Common String Operations*. https://stringr.tidyverse.org.

———. 2023d. *Tidyverse: Easily Install and Load the Tidyverse*. https://tidyverse.tidyverse.org.

Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. https://doi.org/10.21105/joss.01686.

Wickham, Hadley, Winston Chang, Lionel Henry, Thomas Lin Pedersen, Kohske Takahashi, Claus Wilke, Kara Woo, Hiroaki Yutani, Dewey Dunnington, and Teun van den Brand. 2025. *Ggplot2: Create Elegant Data Visualisations Using the Grammar of Graphics*. https://ggplot2.tidyverse.org.

Wickham, Hadley, Romain François, Lionel Henry, Kirill Müller, and Davis Vaughan. 2023. *Dplyr: A Grammar of Data Manipulation*. https://dplyr.tidyverse.org.

Wickham, Hadley, and Lionel Henry. 2025. *Purrr: Functional Programming Tools*. https://purrr.tidyverse.org/.

Wickham, Hadley, Jim Hester, and Jennifer Bryan. 2024. *Readr: Read Rectangular Text Data*. https://readr.tidyverse.org.

Wickham, Hadley, Davis Vaughan, and Maximilian Girlich. 2024. *Tidyr: Tidy Messy Data*. https://tidyr.tidyverse.org.

Wolinetz, Steven, and Andrej Zaslove. 2018. *Absorbing the Blow: Populist Parties and Their Impact on Parties and Party Systems*. ECPR press. https://books.google.nl/books?hl=nl&lr=&id=XYYXEQAAQBAJ&oi=fnd&pg=PA1947&dq=wolinetz+and+zaslove&ots=D-WW4Vw4hi&sig=63wy8KkApwKwxkF3DxP19NrqIWQ.

Zhu, Hao. 2024. *kableExtra: Construct Complex Table with Kable and Pipe Syntax*. http://haozhu233.github.io/kableExtra/.

Online Appendix

Descriptive Statistics Full Dataset

Table A1: Summary Statistics (Full Dataset)

Variable	N	Mean/ Percent	Std. Dev.	Min	Max
Populism (Mean)	541	4.9	2	1.2	9.2
Populism (CFA: Rescaled)	541	5	2.3	0	10
Populism (CFA: Standardized)	541	-0.0003	1.7	-3.5	3.6
Anti-Elitism	556	4.7	2.6	0.43	9.9
General Will	546	4.9	2	0.64	9.8
Manichean	554	5.4	2	1.2	9.7
Indivisible	554	4.6	2	0.73	9.6
People Centrism	552	5.1	2.1	0.89	9.9
Left-Right Overall	558	5.3	2.4	0.17	10
Left-Right Economy	552	4.9	2.2	0.12	9.9
Immigration	549	4.8	2.4	0	9.4
Nativism	553	4.6	2.7	0.1	10
Authoritarian	537	4.8	2.5	0.69	10
Law and Order	542	5	2.4	0.78	10
Lifestyle	550	5.4	2.8	0	9.6
European Integration	552	6	2.8	0	9.8
Salience Culture	301	6.4	1.6	3	9.8
Salience Economy	307	6.5	1.5	3.1	9.6
Left-Right Economy (Ctr)	552	0.0019	2.2	-4.8	5
Nativism (Ctr)	553	-0.000036	2.7	-4.5	5.4
Authoritarian (Ctr)	537	-0.0006	2.5	-4.1	5.2
Party Families	561				
... Radical Right	78	14%			
... Radical Left	54	10%			
... Christian Democratic	38	7%			
... Social Democratic	86	15%			
... Conservatives	68	12%			
... Green	52	9%			
... Liberal	92	16%			
... Regionalist	42	7%			
... Confessional	6	1%			
... Agrarian	16	3%			
... No family	29	5%			
Wave	561				
... Wave 2 - 2023	312	56%			
... Wave 1 - 2018	249	44%			

We do not include the Confessional parties in the analyses in the paper due to the low number of parties.

Additional CFA Analysis

Confirmatory Factor Analysis Models

Performing a Confirmatory Factor Analysis (CFA) is an iterative process, combining model fit, controlling the modification indices and theoretical justification. Table A2, Table A4, Table A6 and Table A8 display the output for the CFA models. To assess the model fit we apply common accepted standards: CFI $\geq$ 0.95; RMSEA $\leq$ 0.05; RMSEA.PVALUE $\geq$ 0.05; SRMR $\leq$ 0.05), (See: Hu and Bentler 1999).

The baseline model (see: Table A2) shows a poor fit: the CFI and the RMSEA are too high, and the p-value for the RMSEA is statistically significant. The only acceptable value is the SRMR which is 0.048. The first set of modification indices (see: Table A10) indicate that the residuals between *generalwill* ~~ *indivisible* show high modification scores, as do *peoplecentrism* ~~ *antielitism*. Both residual covariances can be theoretically justified. We choose *generalwill* ~~ *indivisible* for the first iteration. Both of these items tap into the idea of the homogeneous people. As such, we can expect shared variance between these two items.

Table A4 shows the output for the model with one residual covariance. This model produces a better fit, but not an adequate fit. Although the CFI is higher and the value of the SMR is acceptable, the other values are not within the accepted range. The modification indices for the model with a single covariance (see: Table A11) show a high modification index for *manichean* ~~ *peoplecentrism*. However, adding this residual covariance results in a negative correlation between these two items. Further inspection of the modification index shows multicollinearity issues, with correlations exceeding 1, between Manichean and people centrism.

As such, we choose to re-run the model and include the residual covariance for *peoplecentrism* ~~ *antielitism*. The modification indices show that these items also score high (see: Table A11). There is also good theoretical reason to include a residual covariance between these items. People-centrism and anti-elitism tap into two polar opposites of populism, pitting the people against the elite. The model with two residual covariances (see Table A6) shows a good model fit. However, we have similar issues with the RMSEA as with the previous models.

To improve the model fit, we include an additional residual covariance. The modification indices (Table A13) demonstrates that two sets of items have high scores: *manichean*~~ *antielitism* and *manichean* ~~ *peoplecentrism*. We include residual covariances between *manichean*~~ *antielitism* since the modification index is slightly higher, and also due to the earlier issues with *manichean*~~

peoplecentrism and the negative correlation between these two items. Again, there is good reason to believe Manicheanism and anti-elitism have shared variance. Both items tap into the antagonistic nature of populism, i.e. the idea of the good people versus the corrupt elite. This model with three residual covariances (see Table A8) produces an excellent model fit. The model produces a high CFI, while the RMSEA and the SRMR are well within the accepted range. The Chi-squared is also not statistically significant, implying that the difference between the predicted and the observed covariance structures is very small. The modification indices (see: Table A14) also show no remaining high modification scores, indicating that the model is well specified with three residual covariances.

The model with three residual covariances has 2 degrees of freedom, which is close to what is generally considered an acceptable complexity level. However, the model remains theoretically justified and provides a significantly improved fit compared to the simpler models. The fit indices indicate that this model captures the underlying structure of the data well. An examination of the residuals also shows that the model has a good fit. Table A15 shows the covariances of residuals. Most of the values are near zero, suggesting a good fit. Table A16 shows the standardized residual covariances, all of the values are less than 2, which is considered acceptable.

CFA Models

Table A2: CFA Baseline Model (Unstandardized Estimates)

	Model		
	Estimate	Std. Err.	p-value
	Factor Loadings		
Populism			
Manichean	1.00[+]		
General Will	1.08	0.03	0.000
People Centrism	1.15	0.04	0.000
Anti-Elitism	1.39	0.04	0.000
Indivisible	0.99	0.04	0.000
	Residual Variances		
Manichean	0.93	0.07	0.000
General Will	0.68	0.05	0.000
People Centrism	0.59	0.05	0.000
Anti-Elitism	0.98	0.08	0.000
Indivisible	0.94	0.07	0.000
	Latent Variances		
Populism	2.92	0.23	0.000
	Fit Indices		
CFI	0.83		
χ^2(df)	579.47(5)		0.000
RMSEA	0.46		
RMSEA.PVALUE	0.00		
SRMR	0.05		

[+]Fixed parameter

Note: All estimates are unstandardized.

Table A3: Standardized Factor Loadings for Populism CFA (Baseline Model)

Item	Standardized Estimate	Std. Error	p-value
Manichean	0.870	0.012	0
General Will	0.913	0.008	0
People Centrism	0.932	0.007	0
Anti-Elitism	0.923	0.008	0
Indivisible	0.866	0.012	0

Table A4: CFA with One Residual Covariance (Unstandardized Estimates)

	Model		
	Estimate	Std. Err.	p-value
	Factor Loadings		
Populism			
Manichean	1.00[+]		
General Will	1.04	0.04	0.000
People Centrism	1.22	0.04	0.000
Anti-Elitism	1.49	0.05	0.000
Indivisible	0.92	0.04	0.000
	Residual Variances		
Manichean	1.10	0.07	0.000
General Will	1.12	0.08	0.000
People Centrism	0.36	0.04	0.000
Anti-Elitism	0.50	0.06	0.000
Indivisible	1.43	0.09	0.000
	Residual Covariances		
General Will w/Indivisible	0.99	0.08	0.000
	Latent Variances		
Populism	2.75	0.23	0.000
	Fit Indices		
CFI	0.96		
χ^2(df)	130.27(4)		0.000
RMSEA	0.24		
RMSEA.PVALUE	0.00		
SRMR	0.04		

[+]Fixed parameter
Note: All estimates are unstandardized.

Table A5: Standardized Factor Loadings for Populism CFA (One Residual Covariance)

Item	Standardized Estimate	Std. Error	p-value
Manichean	0.845	0.013	0
General Will	0.851	0.013	0
People Centrism	0.959	0.005	0
Anti-Elitism	0.961	0.005	0
Indivisible	0.788	0.017	0

Table A6: CFA with Two Residual Covariances (Unstandardized Estimates)

	Model		
	Estimate	Std. Err.	p-value
	Factor Loadings		
Populism			
Manichean	1.00[+]		
General Will	1.04	0.03	0.000
People Centrism	1.07	0.04	0.000
Anti-Elitism	1.31	0.04	0.000
Indivisible	0.93	0.04	0.000
	Residual Variances		
Manichean	0.76	0.07	0.000
General Will	0.75	0.07	0.000
People Centrism	0.91	0.08	0.000
Anti-Elitism	1.33	0.12	0.000
Indivisible	1.09	0.09	0.000
	Residual Covariances		
General Will w/Indivisible	0.64	0.07	0.000
People Centrism w/Anti-Elitism	0.71	0.09	0.000
	Latent Variances		
Populism	3.10	0.24	0.000
	Fit Indices		
CFI	0.98		
χ^2(df)	60.63(3)		0.000
RMSEA	0.19		
RMSEA.PVALUE	0.00		
SRMR	0.01		

[+]Fixed parameter

Note: All estimates are unstandardized.

Table A7: Standardized Factor Loadings for Populism CFA (Two Residual Covariances)

Item	Standardized Estimate	Std. Error	p-value
Manichean	0.897	0.011	0
General Will	0.903	0.011	0
People Centrism	0.891	0.012	0
Anti-Elitism	0.894	0.012	0
Indivisible	0.844	0.015	0

Table A8: CFA with Three Residual Covariances (Unstandardized Estimates)

	Model		
	Estimate	Std. Err.	p-value
	Factor Loadings		
Populism			
Manichean	1.00[+]		
General Will	1.09	0.04	0.000
People Centrism	1.09	0.04	0.000
Anti-Elitism	1.28	0.04	0.000
Indivisible	0.98	0.04	0.000
	Residual Variances		
Manichean	0.90	0.08	0.000
General Will	0.59	0.07	0.000
People Centrism	0.92	0.08	0.000
Anti-Elitism	1.79	0.13	0.000
Indivisible	0.95	0.09	0.000
	Residual Covariances		
General Will w/Indivisible	0.49	0.07	0.000
People Centrism w/Anti-Elitism	0.91	0.09	0.000
Manichean w/Anti-Elitism	0.37	0.05	0.000
	Latent Variances		
Populism	2.95	0.23	0.000
	Fit Indices		
CFI	1.00		
χ^2(df)	4.21(2)		0.122
RMSEA	0.05		
RMSEA.PVALUE	0.45		
SRMR	0.00		

[+]Fixed parameter

Note: All estimates are unstandardized.

Table A9: Standardized Factor Loadings for Populism CFA (Three Residual Covariances)

Item	Standardized Estimate	Std. Error	p-value
Manichean	0.875	0.013	0
General Will	0.925	0.010	0
People Centrism	0.890	0.012	0
Anti-Elitism	0.854	0.014	0
Indivisible	0.865	0.014	0

Modification Indices Tables for CFA Models

Table A10: Modification Indices (Baseline Model)

lhs	op	rhs	mi	epc
generalwill	~~	indivisible	394.200391	0.8964244
peoplecentrism	~~	antielitism	383.001232	1.1180492
generalwill	~~	antielitism	147.557126	-0.6681827
antielitism	~~	indivisible	136.185745	-0.6564584
peoplecentrism	~~	indivisible	71.667829	-0.3841365
generalwill	~~	peoplecentrism	46.402942	-0.3057222
manichean	~~	peoplecentrism	34.469709	-0.2673561
manichean	~~	antielitism	7.551885	0.1550270
manichean	~~	generalwill	4.732997	0.0984253
manichean	~~	indivisible	1.994986	0.0686304

Table A11: Modification Indices (One Residual Covariance)

lhs	op	rhs	mi	epc
manichean	~~	peoplecentrism	73.3256927	-0.4152189
peoplecentrism	~~	antielitism	69.2959810	0.7851613
generalwill	~~	antielitism	12.9003856	-0.1092964
manichean	~~	generalwill	10.0245940	0.1014467
manichean	~~	indivisible	4.9387563	0.0785487
manichean	~~	antielitism	4.7519248	0.1293000
generalwill	~~	peoplecentrism	2.5032347	0.0395151
antielitism	~~	indivisible	0.5524774	-0.0231243
peoplecentrism	~~	indivisible	0.3265894	-0.0146127

```
Warning: lavaan->lav_start_check_cov():
   starting values imply a correlation larger than 1; variables involved are:
   manichean peoplecentrism
```

Table A12: Modification Indices with Manichean and People Centrism

lhs	op	rhs	mi	epc
peoplecentrism	~~	antielitism	42.4797191	0.3604423
manichean	~~	antielitism	10.2385134	0.2046553
manichean	~~	generalwill	7.0748830	0.0820151
manichean	~~	indivisible	6.2944584	0.0820046
peoplecentrism	~~	indivisible	1.1096748	-0.0274316
antielitism	~~	indivisible	0.7769876	-0.0272276
generalwill	~~	peoplecentrism	0.6017515	-0.0198697
generalwill	~~	antielitism	0.2461097	-0.0162725

Table A13: Modification Indices (Two Residual Covariances)

lhs	op	rhs	mi	epc
manichean	~~	antielitism	53.5749339	0.3737613
manichean	~~	peoplecentrism	53.5749095	-0.3053773
generalwill	~~	peoplecentrism	18.0041965	0.1000091
generalwill	~~	antielitism	10.0380796	-0.0909165
manichean	~~	indivisible	4.0890333	0.0767800
manichean	~~	generalwill	4.0890272	-0.0852669
antielitism	~~	indivisible	0.8672394	-0.0278578
peoplecentrism	~~	indivisible	0.0836706	-0.0071201

Table A14: Modification Indices (Three Residual Covariances)

lhs	op	rhs	mi	epc
manichean	~~	indivisible	4.1873798	0.0770168
manichean	~~	generalwill	4.1873796	-0.0854405
antielitism	~~	indivisible	0.8071969	-0.0253020
generalwill	~~	antielitism	0.8071968	0.0280694
generalwill	~~	peoplecentrism	0.1045474	0.0093498
peoplecentrism	~~	indivisible	0.1045474	-0.0084280

Covariances of Residuals

Table A15: Covariances of Residuals (Three Residual Covariances)

Variable	Manichean	General Will	People Centrism	Anti-Elitism	Indivisible
Manichean	0				
General Will	-0.001	0			
People Centrism	0	0.001	0		
Anti-Elitism	0	0.001	0	0	
Indivisible	0.009	0	-0.009	-0.009	0

Table A16: Standardized Covariances of Residuals (Three Residual Covariances)

Variable	Manichean	General Will	People Centrism	Anti-Elitism	Indivisible
Manichean	0				
General Will	-1.698	0			
People Centrism	0	1.95	0		
Anti-Elitism	0	1.463	0	0	
Indivisible	1.698	0	-1.95	-1.463	0

Multigroup Confirmatory Factor Analysis Models

Table A17: CFA Baseline Model (Unstandardized Estimates)

	Wave 1 - 2018	Wave 2 - 2023
	Estimate(Std.Err.)	Estimate(Std.Err.)
	Factor Loadings	
Populism		
Manichean	1.00^{+}	1.00^{+}
General Will	1.15(0.06)***	1.05(0.04)***
People Centrism	1.12(0.06)***	1.15(0.04)***
Anti-Elitism	1.35(0.07)***	1.40(0.06)***
Indivisible	1.06(0.06)***	0.97(0.04)***
	Intercepts	
Manichean	5.61(0.12)***	5.23(0.12)***
General Will	5.15(0.13)***	4.79(0.12)***
People Centrism	5.24(0.13)***	4.91(0.12)***
Anti-Elitism	4.88(0.16)***	4.59(0.15)***
Indivisible	4.74(0.13)***	4.41(0.11)***
	Residual Variances	
Manichean	0.84(0.09)***	1.01(0.09)***
General Will	0.55(0.08)***	0.65(0.07)***
People Centrism	0.95(0.11)***	0.45(0.05)***
Anti-Elitism	1.50(0.17)***	0.80(0.09)***
Indivisible	0.85(0.10)***	0.87(0.08)***
	Latent Variances	
Populism	2.55(0.31)***	3.14(0.33)***
	Fit Indices	
CFI	0.84	
χ^2(df)	577.73(10)***	
RMSEA	0.46	
RMSEA.PVALUE	0.00	
SRMR	0.04	

$^{+}$Fixed parameter

* p<0.05, ** p<0.01, ***p<0.001

Note: All estimates are unstandardized.

Table A18: CFA with One Residual Covariance (Unstandardized Estimates)

	Wave 1 - 2018	Wave 2 - 2023
	Estimate(Std.Err.)	Estimate(Std.Err.)
	Factor Loadings	
Populism		
Manichean	1.00^{+}	1.00^{+}
General Will	1.06(0.07)***	1.02(0.05)***
People Centrism	1.27(0.06)***	1.19(0.05)***
Anti-Elitism	1.55(0.08)***	1.46(0.06)***
Indivisible	0.93(0.07)***	0.92(0.05)***
	Intercepts	
Manichean	5.61(0.12)***	5.23(0.12)***
General Will	5.15(0.13)***	4.79(0.12)***
People Centrism	5.24(0.13)***	4.91(0.12)***
Anti-Elitism	4.88(0.16)***	4.59(0.15)***
Indivisible	4.74(0.13)***	4.41(0.11)***
	Residual Variances	
Manichean	1.06(0.11)***	1.12(0.10)***
General Will	1.31(0.13)***	0.97(0.09)***
People Centrism	0.42(0.07)***	0.31(0.05)***
Anti-Elitism	0.52(0.10)***	0.48(0.08)***
Indivisible	1.69(0.16)***	1.23(0.11)***
	Residual Covariances	
General Will w/Indivisible	1.17(0.13)***	0.85(0.09)***
	Latent Variances	
Populism	2.33(0.30)***	3.03(0.33)***
	Fit Indices	
CFI	0.96	
χ^2(df)	133.38(8)***	
RMSEA	0.24	
RMSEA.PVALUE	0.00	
SRMR	0.03	

$^{+}$Fixed parameter

* p<0.05, ** p<0.01, ***p<0.001

Note: All estimates are unstandardized.

Table A19: CFA with Two Residual Covariances (Unstandardized Estimates)

	Wave 1 - 2018	Wave 2 - 2023
	Estimate(Std.Err.)	Estimate(Std.Err.)
	Factor Loadings	
Populism		
Manichean	1.00^{+}	1.00^{+}
General Will	1.05(0.06)***	1.02(0.04)***
People Centrism	1.05(0.06)***	1.08(0.05)***
Anti-Elitism	1.29(0.07)***	1.32(0.06)***
Indivisible	0.94(0.06)***	0.93(0.04)***
	Intercepts	
Manichean	5.61(0.12)***	5.23(0.12)***
General Will	5.15(0.13)***	4.79(0.12)***
People Centrism	5.24(0.13)***	4.91(0.12)***
Anti-Elitism	4.88(0.16)***	4.59(0.15)***
Indivisible	4.74(0.13)***	4.41(0.11)***
	Residual Variances	
Manichean	0.63(0.10)***	0.85(0.10)***
General Will	0.88(0.12)***	0.66(0.09)***
People Centrism	1.13(0.14)***	0.75(0.10)***
Anti-Elitism	1.51(0.20)***	1.18(0.16)***
Indivisible	1.23(0.15)***	0.97(0.10)***
	Residual Covariances	
General Will w/Indivisible	0.72(0.12)***	0.56(0.09)***
People Centrism w/Anti-Elitism	0.87(0.15)***	0.58(0.11)***
	Latent Variances	
Populism	2.76(0.32)***	3.30(0.34)***
	Fit Indices	
CFI	0.98	
χ^2(df)	63.91(6)***	
RMSEA	0.19	
RMSEA.PVALUE	0.00	
SRMR	0.01	

$^{+}$Fixed parameter

* p<0.05, ** p<0.01, ***p<0.001

Note: All estimates are unstandardized.

Table A20: CFA with Three Residual Covariances (Unstandardized Estimates)

	Wave 1 - 2018	Wave 2 - 2023
	Estimate(Std.Err.)	Estimate(Std.Err.)
	Factor Loadings	
Populism		
Manichean	1.00^{+}	1.00^{+}
General Will	1.12(0.06)***	1.06(0.04)***
People Centrism	1.09(0.06)***	1.10(0.05)***
Anti-Elitism	1.26(0.07)***	1.30(0.05)***
Indivisible	1.01(0.06)***	0.96(0.05)***
	Intercepts	
Manichean	5.61(0.12)***	5.23(0.12)***
General Will	5.15(0.13)***	4.79(0.12)***
People Centrism	5.24(0.13)***	4.91(0.12)***
Anti-Elitism	4.88(0.16)***	4.59(0.15)***
Indivisible	4.74(0.13)***	4.41(0.11)***
	Residual Variances	
Manichean	0.80(0.11)***	0.97(0.10)***
General Will	0.67(0.12)***	0.53(0.09)***
People Centrism	1.11(0.14)***	0.78(0.10)***
Anti-Elitism	2.02(0.22)***	1.61(0.16)***
Indivisible	1.05(0.14)***	0.86(0.10)***
	Residual Covariances	
General Will w/Indivisible	0.53(0.12)***	0.44(0.09)***
People Centrism w/Anti-Elitism	1.08(0.15)***	0.77(0.11)***
Manichean w/Anti-Elitism	0.38(0.08)***	0.35(0.07)***
	Latent Variances	
Populism	2.59(0.31)***	3.18(0.33)***
	Fit Indices	
CFI	1.00	
χ^2(df)	6.75(4)	
RMSEA	0.05	
RMSEA.PVALUE	0.42	
SRMR	0.00	

$^{+}$Fixed parameter

* p<0.05, ** p<0.01, ***p<0.001

Note: All estimates are unstandardized.

Invariance Test for All Models

Table A21: Invariance Test (All Models)

Model Group	Model	Df	AIC	BIC	Chisq	Chisq diff	Df diff	Pr(>Chisq)
Model: Baseline	Configural	10	8860.32	8989.12	577.73			
Model: Baseline	Metric	14	8854.79	8966.42	580.20	2.47	4	0.65
Model: Baseline	Scalar	18	8850.08	8944.53	583.49	3.28	4	0.51
Model: Baseline	Strict	23	8858.08	8931.07	601.49	18.01	5	0.00
Model: Res. Cov. 1	Configural	8	8419.97	8557.36	133.38			
Model: Res. Cov. 1	Metric	12	8413.52	8533.73	134.93	1.55	4	0.82
Model: Res. Cov. 1	Scalar	16	8410.43	8513.48	139.84	4.91	4	0.30
Model: Res. Cov. 1	Strict	21	8410.85	8492.43	150.26	10.42	5	0.06
Model: Res. Cov. 2	Configural	6	8354.50	8500.48	63.91			
Model: Res. Cov. 2	Metric	10	8347.22	8476.02	64.63	0.72	4	0.95
Model: Res. Cov. 2	Scalar	14	8342.23	8453.86	67.64	3.01	4	0.56
Model: Res. Cov. 2	Strict	19	8341.60	8431.76	77.01	9.37	5	0.10
Model: Res. Cov. 3	Configural	4	8301.34	8455.91	6.75			
Model: Res. Cov. 3	Metric	8	8294.61	8432.00	8.02	1.27	4	0.87
Model: Res. Cov. 3	Scalar	12	8289.45	8409.66	10.86	2.83	4	0.59
Model: Res. Cov. 3	Strict	17	8288.37	8387.12	19.78	8.92	5	0.11

Item Response Theory for Wave 1 and Wave 2

Figure A1: Item Information Plots Wave 1

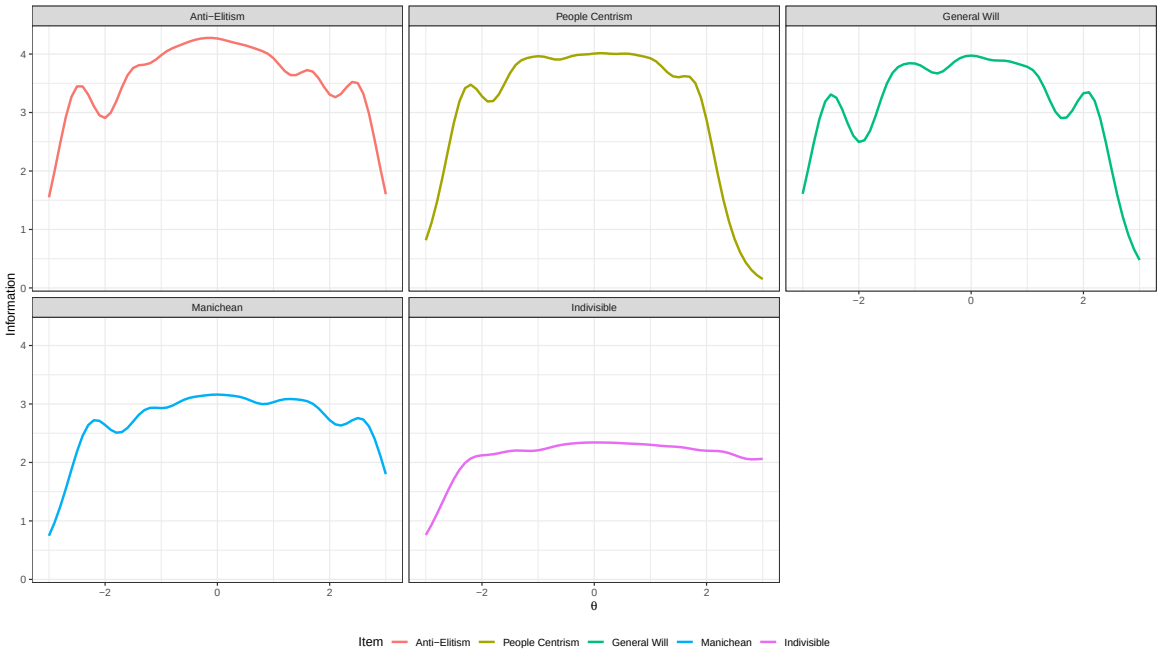


Figure A2: Item Information Plots Wave 2

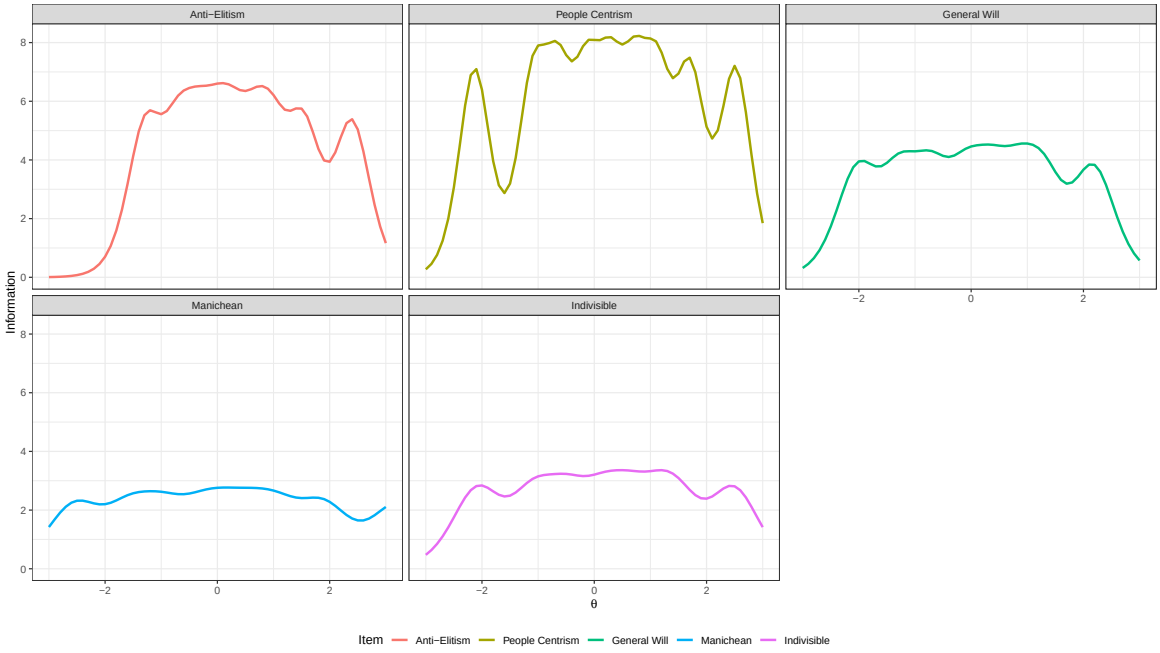


Figure A3: Item Proability Function (Wave 1)

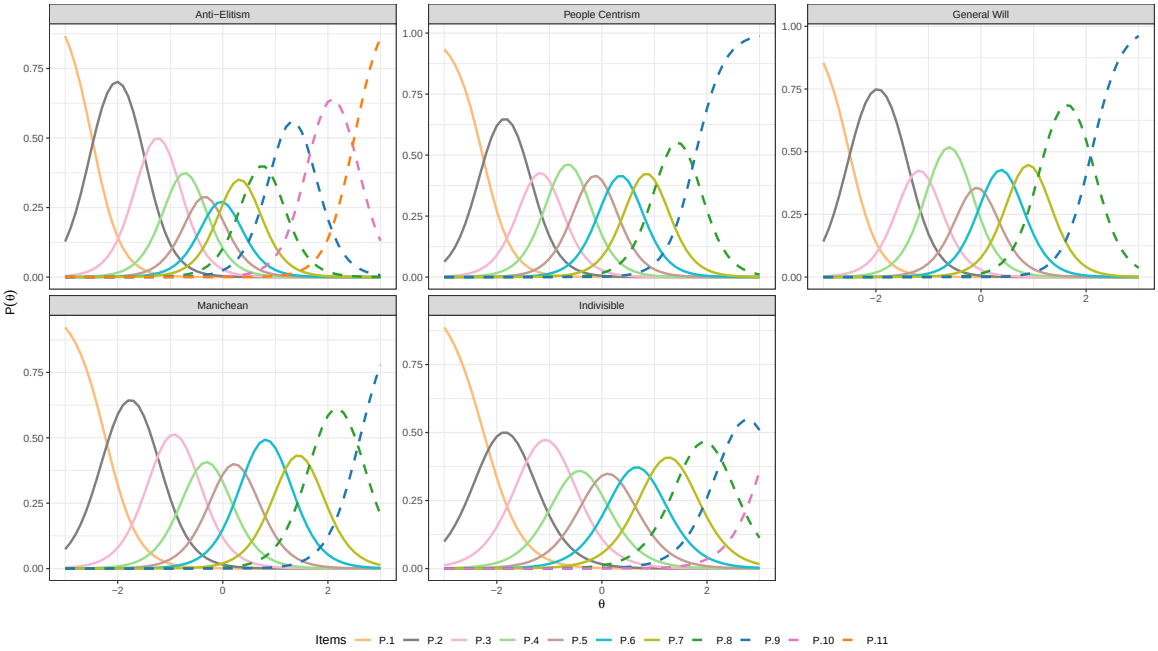
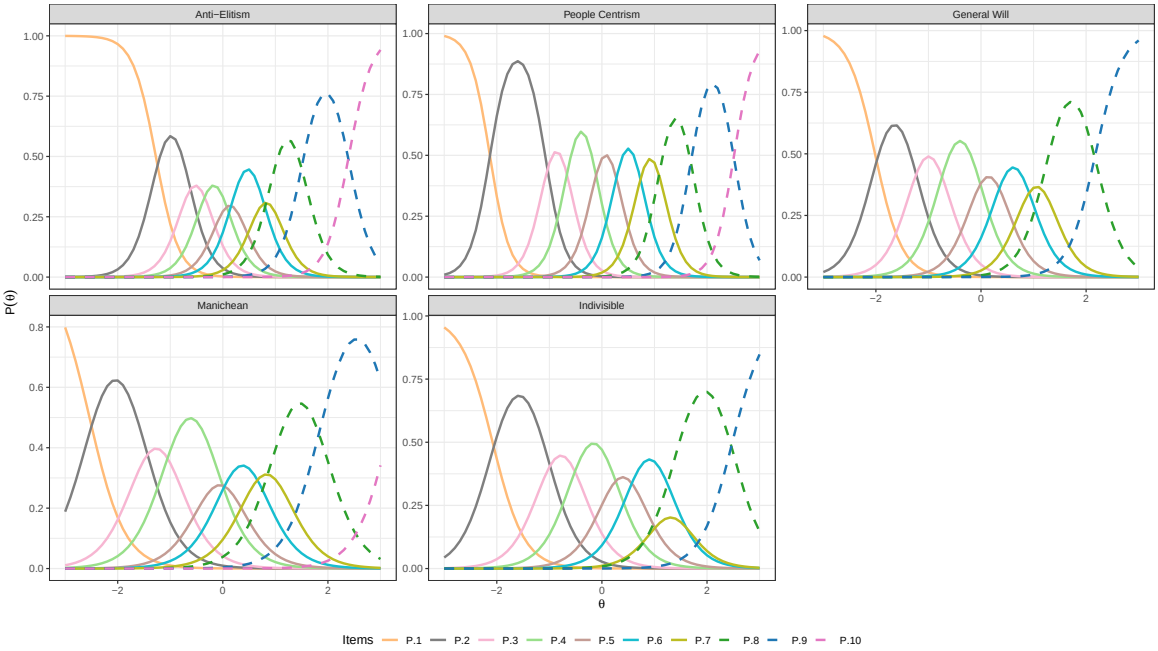


Figure A4: Item Proability Function (Wave 2)



Correlations

Table A22: Correlation Matrix for Populist Items

	Manichean	Indivisible	General Will	People Centrism	Anti-Elitism
Manichean	1	.	.	.	.
Indivisible	0.76***	1	.	.	.
General Will	0.81***	0.92***	1	.	.
People Centrism	0.78***	0.76***	0.82***	1	.
Anti-Elitism	0.82***	0.73***	0.79***	0.93***	1

Table A23: Correlation Matrix for Attaching Ideologies

	Populism	Left-Right Economy	Nativism	Lifestyle (rev)	Law and Order	Authoritarianism
Populism	1	.	.	.	.	.
Left-Right Economy	−0.17***	1	.	.	.	.
Nativism	0.64***	0.36***	1	.	.	.
Lifestyle (rev)	0.51***	0.31***	0.84***	1	.	.
Law and Order	0.54***	0.39***	0.89***	0.88***	1	.
Authoritarianism	0.54***	0.36***	0.89***	0.97***	0.96***	1

Change between Waves per Party Family

Table A24: Difference per Party Family for Populism (Median, Mean, Standard Deviation)

	Populism Difference Statistics		
Party Family	Median Diff Populism	Mean Diff Populism	SD Diff Populism
Christian Democratic	-0.19	-0.51	1.33
Social Democratic	-0.36	-0.35	1.39
Radical Right	0.01	0.06	0.83
Green	-0.35	-0.35	1.01
Liberal	-0.63	-0.68	0.78
Regionalist	-0.23	-0.22	0.96
Radical Left	-0.14	-0.54	1.59
Conservatives	-0.42	-0.43	1.16
No family	-0.02	-0.07	0.86
Agrarian	0.01	-0.06	0.83

OLS Regression Models with the Populism as the Mean

Table A25: Populist Party Characteristics (With Populism Mean)

	Model 1	Model 2	Model 3	Model 4
Nativism	0.455***			0.579***
	(0.024)			(0.021)
Authoritarianism			0.417***	
			(0.029)	
Left-Right Economy		−0.181***		−0.433***
		(0.038)		(0.025)
Wave 2	−0.299*	−0.247	−0.252+	−0.290**
	(0.134)	(0.170)	(0.148)	(0.106)
(Intercept)	2.542***	5.002***	2.671***	4.021***
	(0.444)	(0.603)	(0.493)	(0.377)
Num.Obs.	538	538	532	537
R2	0.460	0.125	0.349	0.661

With country fixed effects
Standard errors are shown in parentheses
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Table A26: Interaction with Wave (With Populism Mean)

	Model 1 (FD)	Model 2 (FD)	Model 3 (FD)	Model 4 (FD)	Model 5 (DSP)	Model 6 (DSP)	Model 7 (DSP)
Wave 2	−0.272	−0.290**	−0.291**	−0.230+	−0.283	−0.312**	−0.264+
	(0.175)	(0.106)	(0.106)	(0.127)	(0.193)	(0.114)	(0.144)
Nativism (Ctr)		0.532***	0.579***			0.554***	
		(0.029)	(0.021)			(0.032)	
LR Economy (Ctr)		−0.433***	−0.457***	−0.395***		−0.458***	−0.416***
		(0.025)	(0.037)	(0.030)		(0.028)	(0.035)
Authoritarianism (Ctr)				0.485***			0.489***
				(0.039)			(0.045)
Wave 2 x Nativism (Ctr)		0.083*				0.087*	
		(0.038)				(0.042)	
Wave 2 x LR Economy (Ctr)			0.042				
			(0.047)				
Wave 2 x Authoritarianism (Ctr)				0.091+			0.088
				(0.049)			(0.058)
(Intercept)	4.471***	4.587***	4.590***	4.490***	4.085***	4.602***	4.470***
	(0.565)	(0.356)	(0.357)	(0.426)	(0.604)	(0.355)	(0.449)
Num.Obs.	541	537	537	530	391	390	387
R2	0.082	0.664	0.661	0.522	0.123	0.699	0.521

With country fixed effects; FD: Full dataset; DSP: Dataset with shared parties
Standard errors are shown in parentheses
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Number of Experts Per Country

Table A27: Number of Experts Per Country

Country	Mean Experts Wave 1	Min Experts Wave 1	Max Experts Wave 1	Mean Experts Wave 2	Min Experts Wave 2	Max Experts Wave 2
Austria	12.55	9	13	11.48	4	13
Belgium - Flanders	13.36	6	14	8.59	4	9
Belgium - Wallonia	8.69	7	9	8.65	7	9
Bulgaria	5.75	4	6	11.06	6	12
Croatia	7.50	5	8	7.04	4	8
Cyprus	4.00	4	4	6.25	4	7
Czech Republic	10.18	4	11	10.63	9	11
Denmark	9.92	4	11	8.33	5	9
Estonia	9.76	5	10	8.94	5	9
Finland	10.60	8	11	10.52	6	11
France	9.54	6	10	7.63	4	9
Germany	17.70	16	18	27.79	21	29
Greece	12.27	9	13	9.19	4	11
Hungary	12.74	8	14	8.96	4	10
Iceland	NA	NA	NA	4.70	4	5
Ireland	8.54	4	10	8.28	5	9
Italy	14.76	7	16	15.19	4	18
Latvia	NA	NA	NA	5.19	4	6
Lithuania	5.54	4	6	5.88	4	7
Luxembourg	NA	NA	NA	4.82	4	5
Malta	4.00	4	4	5.91	5	6
Netherlands	11.49	4	13	8.39	4	12
Norway	4.00	4	4	5.91	4	6
Poland	9.35	5	10	7.91	4	9
Portugal	4.94	4	5	9.27	5	10
Romania	13.24	11	14	8.10	4	10
Slovakia	10.77	6	12	8.82	4	10
Slovenia	7.46	5	8	4.89	4	5
Spain	9.54	4	11	10.60	4	13
Sweden	7.67	7	8	11.88	10	12
Switzerland	9.17	4	10	7.10	4	10
United Kingdom	9.50	4	11	5.84	4	7
Overall	**9.47**	**4**	**18**	**8.87**	**4**	**29**