

LETTER

Nostalgia in European Party Politics: A Text-Based Measurement Approach

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Abstract

Traditional research on political parties pays little attention to the temporal focus of communication. It usually concentrates on promises, issue attention, and policy positions. This lack of scholarly attention is surprising, given that voters respond to nostalgic rhetoric and may even adjust issue positions when policy is framed in nostalgic terms. This article presents a novel dataset, PolNos, which contains six text-based measures of nostalgic rhetoric in 1,648 party manifestos across 24 European democracies from 1946 to 2018. The measures combine dictionaries, word embeddings, sentiment approaches, and supervised machine learning. Our analysis yields a consistent result: nostalgia is most prevalent in manifestos of culturally conservative parties, notably Christian democratic, nationalist, and radical right parties. However, substantial variation remains regarding regional differences and whether nostalgia concerns the economy or culture. We discuss the implications and use of our dataset for studying political parties, party competition, and elections.

Keywords: nostalgia; party competition; elections; quantitative text analysis

Introduction

Campaigns are full of electoral promises. By pledging to implement new policies in the future, parties aim to appeal to their electorate, hoping that such pledges will persuade citizens to cast votes for them (Matthieß 2020). However, not all partisan communication is future-oriented. Rhetoric focused on the past typically makes up between 5 and 10 per cent of parties' election manifestos (Müller 2022). References to the past are important enough that parties dedicate space to them, contributing to the overall communication strategy of parties during campaigns (Watanabe and Sältzer 2023). A focus on the past could include self-praise by a government party or criticism of the government's past actions by an opposition party. Often, past-focused statements carry a nostalgic tone, aiming to evoke positive emotions by recalling memories of important events. Prior work distinguishes between *personal* nostalgia, when events are experienced individually, and *collective* nostalgia, when experiences are shared with in-group members (Wildschut et al. 2014). We focus on collective nostalgia and follow Lammers and Baldwin's (2018, 599) definition of nostalgia as a 'predominately positive emotion that is associated with recalling memories of important or momentous events, usually experienced with close others'.

In 2022, the Italian far-right party, Fratelli d'Italia, led by Giorgia Meloni, scored an electoral victory and became the largest party in the Italian parliament. Commentators remarked on the distinct nostalgic appeals the party had made during the election campaign (Regan 2022). This perception was justified. As our analysis reveals, the party's election manifesto was highly

nostalgic, making both cultural and economic nostalgic appeals. For instance, the party wrote that ‘natural resources and artistic heritage of the nation are an inheritance to be guarded and enhanced’ and that ‘the elderly represent our history: a heritage of experiences, skills, talents that have helped to the birth and growth of our nation’. The party also proposed ‘creating a new Italian imagination also promoting, in particular in schools, the history of the great Italy and the historical re-enactments’. This example illustrates that nostalgic rhetoric is an element of partisan rhetorical strategy.

As a particular way of remembering the past, nostalgic communication can legitimize present policy positions or mobilize collective identities in the electorate in election campaigns. Not only do parties such as Fratelli d’Italia propose policies to restore the ‘good old times’, citizens themselves hold nostalgic perceptions. The vast majority, around two-thirds of the European public, can be classified as nostalgic (De Vries and Hoffmann 2018). Many citizens believe that the world used to be a better place than it is today, providing an opportunity for political parties to frame their message in a manner that appeals to a known and supposedly more glorious past. Recent work shows that nostalgic rhetoric can shape political opinions and behaviour (Elçi 2022; Kim-Leffingwell 2023; Versteegen 2023). Nostalgic partisan communication can thus accommodate feelings of collective nostalgia and anxieties about the future.

Despite the known presence of nostalgia in political rhetoric and voter perceptions, valid and reliable cross-national measures of partisan nostalgia are, hitherto, missing. In this study, we introduce, compare, and validate different measures of nostalgia in partisan rhetoric using a fully translated corpus of election manifestos in twenty-four parliamentary democracies published between 1946 and 2018. We present the dataset PolNos (Müller and Proksch 2023a), which includes a sentence-level measurement approach relying on the full range of text classification tools developed in the last twenty years, including self-constructed dictionaries (for example, Laver and Garry 2000), dictionary extensions through word embeddings (for example, Hargrave and Blumenau 2022), sentiment analysis (for example, Proksch et al. 2019; Young and Soroka 2012), ‘bag-of-words’ machine learning classifiers (for example, Frischlich et al. 2023; Theocharis et al. 2016), and fine-tuned transformer models (for example, Laurer et al. 2023).

First, we show that while the measurement approaches yield individual differences concerning the amount of expressed nostalgia, substantive results are mostly comparable across measures. Second, we investigate the variation in nostalgic rhetoric and find a strong and consistent effect of ideology: culturally conservative parties are substantially more nostalgic than culturally progressive parties. Specifically, nationalist, radical right, and Christian democratic parties express the highest levels of nostalgic rhetoric. The overall level of nostalgia varies across Europe, with parties in Central and Eastern Europe as well as Southern Europe exposing the highest average levels of nostalgia. However, populist parties are not more nostalgic, despite the supposition that populist parties may refer to a better past and a bygone era to turn dissatisfaction with established parties into votes (Elçi 2022; Lammers and Baldwin 2020). Finally, we find that nostalgic appeals are not a recent phenomenon but have been present ever since the end of the Second World War. Our results underscore that nostalgia constitutes an important feature of party competition and varies systematically in partisan communication.

Nostalgia in Partisan Rhetoric

European politics is characterized by multidimensional political competition. In addition to their conflict over redistribution on an economic policy dimension, parties compete in elections on a cultural dimension, pitting more progressive liberal stances versus culturally conservative authoritarians (for example, Hooghe and Marks 2009; Kriesi et al. 2008). Conservatism views the world as a traditional social order, emphasizing authoritarianism and nationalism (Mudde 2007). Therefore, conservative parties may advocate for preserving the status quo or reverting to a time gone by. While a relative conception of conservatism is problematic – a ‘return to the

past' can mean different things at various times in different contexts (Mudde 2007, 27) – it leads to a general expectation that parties adopt a more nostalgic tone in their communication when competing with socially progressive parties. The anecdote of the Italian Fratelli d'Italia manifesto from the 2022 election is an example of such rhetoric.

In addition to parties' conservative stances on a range of cultural issues, the emergence of populist parties in Europe may have introduced an additional strong narrative that focuses on breaking with the status quo, viewing recent social change in a pessimistic way (Steenvoorden and Harteveld 2018). The populist narrative, particularly in combination with a right-wing ideology, goes with a vision often reconstructed from the past (Betz and Johnson 2004; Elçi 2022). Lammers and Baldwin (2020) show that a message of nostalgia related to a past 'characterized by political incorrectness' can be associated with increased support for populist radical right parties, a finding supported by Versteegen (2023), who uses Dutch panel data to show that nostalgic citizens tend to be less satisfied with the government and have a higher voting propensity for radical right parties.

Nostalgic appeals may not be limited to culturally conservative or populist parties. Studies in political psychology find that an appeal to the past can make conservative citizens more supportive of progressive policy positions. Baldwin and Lammers (2016) and Lammers and Baldwin (2018) show in a range of survey experiments that conservatives' opposition to climate change mitigation policy, greater leniency in criminal justice, gun rights restrictions, fewer constraints on immigration, and social justice was reduced if the appeals were focused on the past (but see Kim et al., 2021). The argument behind this association is that conservatives and liberals make different temporal comparisons: while conservatives focus on the past, liberals look toward the future. Therefore, by framing a message in a nostalgic way, even liberal parties may be able to convince more conservative voters of progressive policies.

We measure nostalgia in party manifestos by applying a wide range of text classification approaches. Our endeavour is primarily measurement focused: our objective is to yield valid and reliable measurements of nostalgia in official partisan communications. Subsequently, we analyze the resulting variation conditional on exogenous measures of party ideology across Europe, focusing on the association with partisan ideology and party family membership.

The PolNos Dataset: Political Nostalgia in Party Manifestos

We adopt a comprehensive approach to classify sentences of party manifestos in European countries as nostalgic. To obtain cross-national estimates, we first machine translate manifestos into English (De Vries et al. 2018). Our analysis considers 1,648 English or machine-translated manifestos from 379 parties in 24 European countries. The number of manifestos per country ranges from 16 (Poland) to 183 (Denmark), with an average of 68 manifestos and 11 elections per country (Figure A1).

Figure 1 summarizes our text analysis method. We estimate nostalgic rhetoric in six different ways, producing six distinct measures. These measures reflect the diversity of frequently used text classification approaches in political science, ranging from custom-made dictionaries commonly used in comparative politics to pre-trained transformer-based language models that researchers can fine-tune with labeled text data. Our goal is to apply these various tools to measure partisan nostalgia and compare measures with varying degrees of complexity. Rather than relying on a single measurement, we evaluate (a) to what extent the models differ in their ability to classify nostalgia at the sentence level and (b) to what extent differences in classification make a difference in the substantive conclusions drawn from an analysis that uses these measures.

Our first measure is a base dictionary in English of nostalgic terms based on three inputs (Panel 1). We construct this dictionary using a previously developed dictionary (Davalos et al. 2015) and human-coded manifesto sentences, and then adjust the dictionary for political

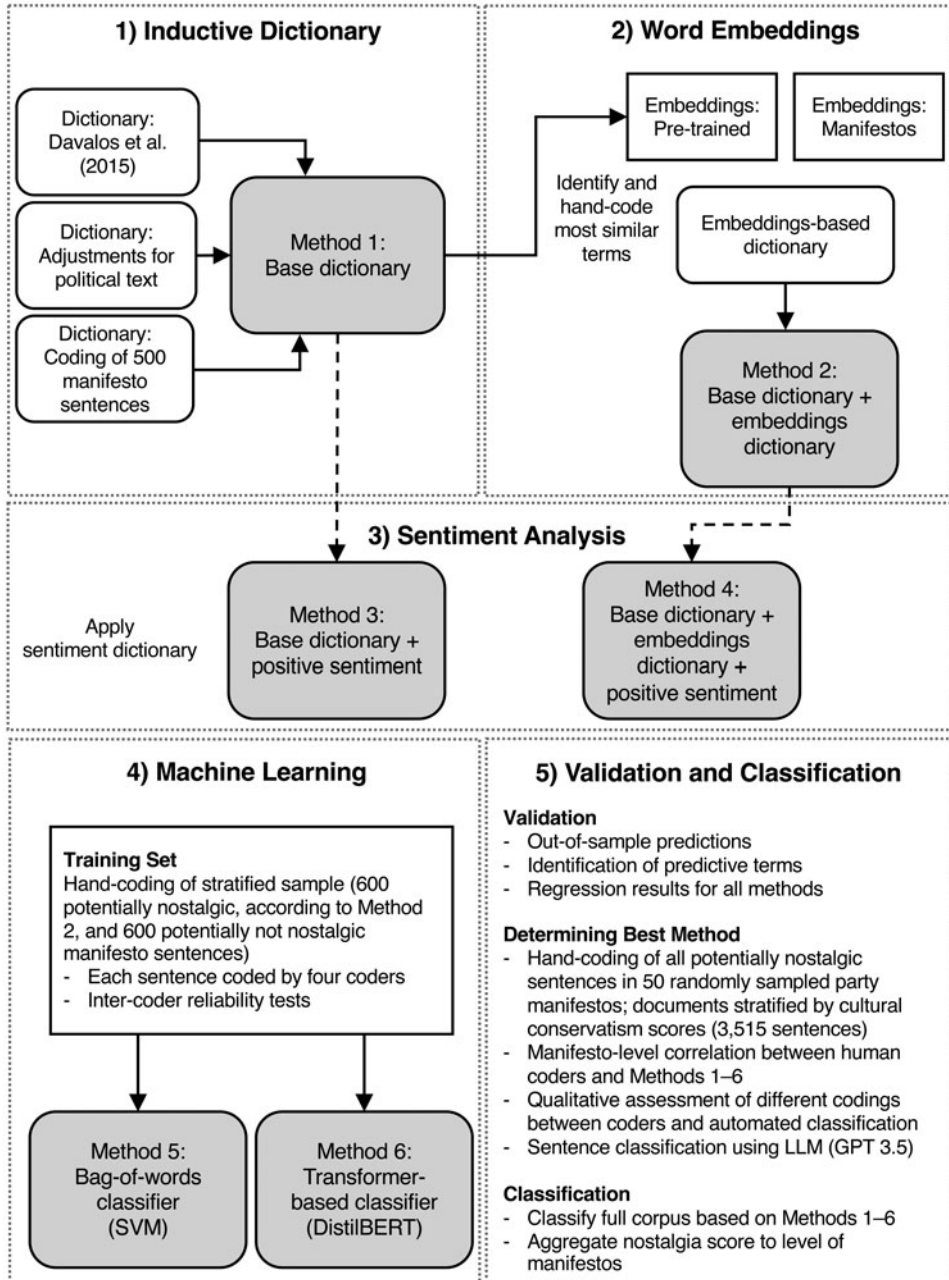


Figure 1. Method and coding process for identification of nostalgia in party manifestos.

context.¹ Davalos et al. (2015) successfully used a list of thirteen phrases in English to capture nostalgic social media posts to study nostalgia on Facebook. We extended this dictionary to

¹An alternative would be to focus on mentions of past political leaders to capture nostalgic references (Andrews-Lee and Liu 2021). As party manifestos do not contain many references to past leaders, we refrain from implementing this approach, which may constitute a useful alternative when using campaign speeches rather than manifestos.

become a more domain-specific one on the basis of 500 randomly drawn hand-coded sentences of party manifestos.

The second method is an expansion of this dictionary by identifying the ‘nearest neighbours’ of the unigrams using word embeddings (Panel 2 in Fig. 1). Relying on pre-trained GloVe6b embeddings and a second embedding space that we created based on a corpus of 1.4 million machine-translated manifesto sentences, we identified the 50 most similar terms of each word, resulting in a list of 1,769 unique terms. A total of three human coders then identified 57 additional terms as nostalgic. The final dictionary consists of 95 terms and multi-word expressions (see SI Section B).

In addition to the two dictionaries (Methods 1 and 2), we constrain the nostalgia classification using positive sentiment (Proksch et al. 2019; Young and Soroka 2012). As nostalgia is meant to create a positive emotion of the past, we perform a sentiment analysis on sentences classified as nostalgic and retain only those classified as positive (Method 3 for the base dictionary and Method 4 for the word embedding dictionary).

Finally, we apply two machine-learning approaches to classify nostalgic sentences. The training set for the classifiers consists of hand-coded labels of nostalgia. For each country, we selected twenty-five sentences labeled as nostalgic by the broadest methods (Dictionary + Embeddings-based Dictionary) and twenty-five sentences labeled as not nostalgic by the dictionary. This sampling approach does not resemble the imbalance of classes in our entire corpus. However, oversampling potentially nostalgic sentences allows us to better identify (dis)agreements between coders and automated approaches. In total, this procedure yields 1,200 sentences across the countries. Four research assistants then coded each of these 1,200 sentences. Table A2 reports the inter-coder reliability from the final coding round.² In total, 77 per cent of the 1,200 sentences were coded in the same way by all four coders. Krippendorff’s Alpha and Fleiss’ Kappa, two of the most common measures of inter-coder reliability, are 0.56. To put these scores into perspective, in a multilingual study on incivility in tweets, Krippendorff’s Alpha amounts to 0.3–0.54 for the ‘tone’ and 0.39–0.53 for ‘morality’ (Theocharis et al. 2016). Overall, our coding agreement seems to align with other latent concepts in political texts.

After our inter-coder reliability tests, we aggregate the four human codings. We code a sentence as nostalgic rhetoric if at least three of the four coders labeled a sentence as nostalgic. Afterwards, we split the annotated corpus into a training set with 80 per cent of the sentences (960 sentences) and a held-out test set with 240 sentences. We train two machine learning classifiers: a Support Vector Machine (SVM), which relies on the bag-of-words approach and does not consider word order within sentences, and DistilBERT, a state-of-the-art transformer-based classifier. Compared with the original BERT transformer, DistilBERT retains 97 per cent of BERT’s language understanding while the classification is 60 per cent faster than BERT (Sanh et al. 2019).

Table A3 reports the out-of-sample performance of all six methods. The computationally demanding DistilBERT classification produces the best results: 95 per cent of the sentences were classified correctly, and the F1 score of 0.81 is very high. With an F1 score of 0.74, the SVM classifier also works well. The classification performance of the dictionary-based methods is substantively worse, with F1 scores between 0.38 and 0.48. We summarize additional validation tests in SI Section C.

We conduct an additional coding exercise to identify the method that most closely aligns with human perceptions of nostalgic rhetoric. We randomly sample fifty party manifestos and extract all sentences labeled nostalgic by at least one of our six methods. We stratify the sample by deciles of our measure of cultural conservatism and extract five manifestos per decile to ensure that our

²We set up and discussed two reliability tests of 100 sentences each. The inter-coder reliability improved as a result of the initial rounds.

Human Coding (2 Coders)	0.61	0.54	0.54	0.53	0.87	0.86	0.79	0.87	1
Human Coding (>=1 Coder)	0.79	0.68	0.78	0.69	0.94	0.94	0.8	1	0.87
LLM: GPT 3.5	0.69	0.65	0.57	0.58	0.78	0.76	1	0.8	0.79
Method 6 (DistilBERT)	0.75	0.6	0.71	0.62	0.95	1	0.76	0.94	0.86
Method 5 (SVM)	0.75	0.6	0.7	0.61	1	0.95	0.78	0.94	0.87
Method 4 (Dict. + Emb. + Sentiment)	0.77	0.93	0.8	1	0.61	0.62	0.58	0.69	0.53
Method 3 (Dict. + Sentiment)	0.93	0.73	1	0.8	0.7	0.71	0.57	0.78	0.54
Method 2 (Dict + Emb.)	0.78	1	0.73	0.93	0.6	0.6	0.65	0.68	0.54
Method 1 (Dict.)	1	0.78	0.93	0.77	0.75	0.75	0.69	0.79	0.61
	Method 1 (Dict.)	Method 2 (Dict + Emb.)	Method 3 (Dict. + Sentiment)	Method 4 (Dict. + Emb. + Sentiment)	Method 5 (SVM)	Method 6 (DistilBERT)	LLM: GPT 3.5	Human Coding (>=1 Coder)	Human Coding (2 Coders)

Figure 2. Manifesto-level correlations between measures of nostalgia and human codings of the same set of 50 manifestos.

sample mirrors the full range of culturally liberal and conservative parties. Afterwards, two instructed coders labeled all 3,515 sentences. We treat a sentence as nostalgic if at least one of the two coders (Measure 1: *Human Coding: ≥ 1 Coder*) or both coders (Measure 2: *Human Coding: 2 Coders*) identified nostalgic rhetoric.

We find very high manifesto-level correlations for the fifty documents (Fig. 2). The correlations between the human codings (same classification of sentences by both coders) and our automated measures range from 0.53 (Method 4: Dictionary + Embeddings + Sentiment) to 0.86 (Method 6: DistilBERT) and 0.87 (Method 5: SVM). Correlations increase even more (ranging from 0.68 to 0.94) when we compare our automated approaches with nostalgic codings by at least one of the coders. We also compare our methods and human coding to the Large Language Model (LLM) GPT-3.5, which has been shown to outperform crowd workers for text annotation tasks (Gilardi et al. 2023). We instruct the LLM to classify sentences on a scale from one to ten, where higher values indicate more nostalgic rhetoric. We classify sentences with a rating of at least five as nostalgic.³ The GPT scores aggregated to the manifesto level correlate with all measures, ranging from 0.57 (Base Dictionary + Sentiment) to 0.76 (DistilBERT) and 0.78 (SVM). The similarities between our six methods, the human codings, and the LLM speak to the validity of our measures. Based on our extensive validation, we treat the

³We do not apply the LLM to the entire text corpus due to the lack of transparency about the inputs used to train the model, the proprietary nature of models provided by OpenAI, and issues with the reproducibility of classification results (Spirling 2023). However, the results highlight that comparable open-source implementations could be a promising way of identifying latent concepts, including nostalgia.

DistilBERT approach as the best method. However, we also note that all six methods closely capture human coding when moving from the level of sentences to the level of manifestos.

We illustrate the coding differences for the manifesto of the UK Independence Party. This Eurosceptic, populist radical right party had been an early advocate for the UK's exit from the European Union. An example where human coding and DistilBERT agree on nostalgia is found in the following sentence: 'Our historic market towns, cathedral cities and unspoiled countryside are the envy of the world.' A contrasting example where coders did not code a sentence as nostalgic, but DistilBERT did, is as follows: 'We reject multiculturalism, the doctrine whereby different ethnic and religious groups are encouraged to maintain all aspects of their cultures, instead of integrating into our majority culture, even if some of their values and customs conflict with British ones.' Finally, a sentence where DistilBERT failed to classify a sentence coded as nostalgic by human coders was the following: 'Once the UK leaves the EU, we, as a country, regain our ability to take back our vacant seat at the WTO and represent ourselves, negotiating our own trade agreements and advancing our own national trade interests.'

We apply all methods to 1,192,680 sentences in our corpus of party manifestos and aggregate nostalgia to the level of manifestos.⁴ Nostalgia is measured as the number of sentences (per 1,000 sentences) that have been classified as nostalgic.⁵ The manifesto-level correlations between our nostalgia measures range from 0.39 to 0.86 (Figure A3). Despite substantive differences in the classification performance, all measures have positive and sizable correlations.

Results: Variation in Partisan Nostalgic Rhetoric in Europe

We start with a purely descriptive analysis of variation in nostalgic rhetoric across Europe. Figure 3 reports levels of nostalgia for parties that have competed in at least three national elections. The squares show the average level of nostalgia in each country, while the dots report the parties with the lowest and highest levels of nostalgia. An average manifesto in Europe contains around 14 nostalgic sentences per 1,000 sentences. The country with the highest average nostalgia in partisan communication is Estonia (61.5 nostalgic sentences per 1,000 sentences, while the lowest amount is found in Denmark (10.7).

The plot allows for three conclusions. First, we observe substantive variation in nostalgic rhetoric within each country. Second, the most nostalgic parties in each country tend to belong to Nationalist, Conservative, or Christian Democratic party families. Third, nostalgia tends to be highest in Central, Eastern, and Southern European countries. By contrast, nostalgic rhetoric is less prevalent in Western and Northern Europe.

The validation in SI Sections C and D points to considerable variation in the absolute degrees of nostalgia across our six text analysis methods. DistilBERT tends to identify more sentences as nostalgic than the dictionary approach, while the dictionary extended through word embeddings returns the highest prevalence of nostalgia (Figure A7). Despite these differences, it is an empirical question if substantive conclusions with regard to the correlates of nostalgic rhetoric depend on a particular measurement approach. Using the party-election as the unit of analysis, we examine to what extent the nostalgic rhetoric is related to a party's cultural conservatism (for details on the measure, see SI Section C.6), its government or opposition status, its size in terms of vote shares, and the level of national unemployment in the year prior to the election (Armingeon et al. 2022).

⁴We use the following R packages for preparing, analyzing, and visualizing the data: *quanteda* (Benoit et al. 2018), *tidyverse* (Wickham et al. 2019), *lme4* (Bates et al., 2015), *ggeffects* (Lüdtke 2018), *ggcorrplot* (Kassambara 2022), *rio* (Chan et al. 2021), *texreg* (Leifeld 2013), and *xtable* (Dahl et al. 2019). We fine-tune and apply the DistilBERT classifier in Python using the transformers (Wolf et al. 2019) library.

⁵Our choice of relative comparison to 1,000 sentences instead of 100 sentences is simply for an easier interpretation of the regression coefficients and in order to capture the typical length of a manifesto. Note that we limit the corpus to sentences longer than five and shorter than sixty words.

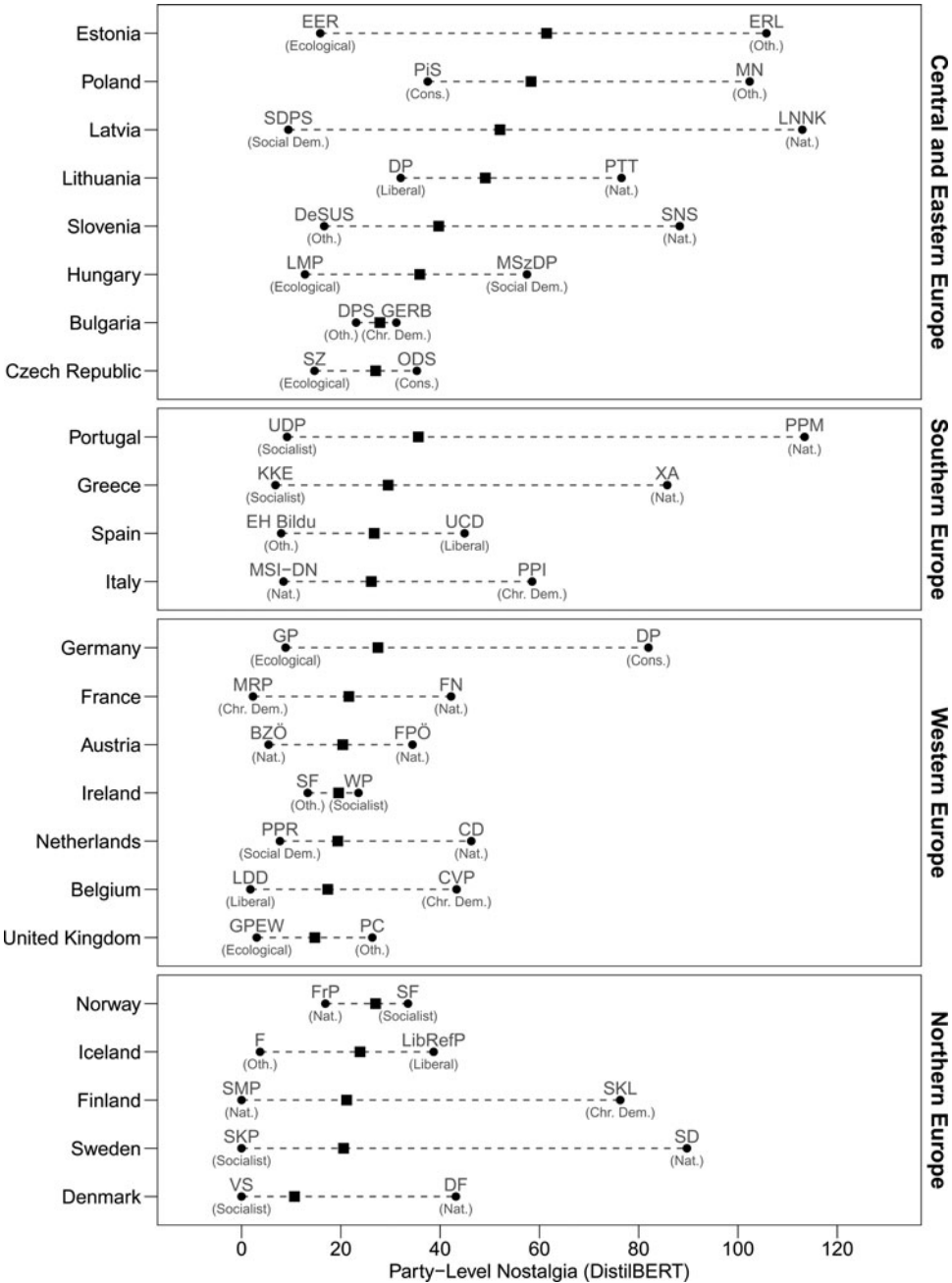


Figure 3. Comparing party-level nostalgia across countries. Black squares show the average nostalgia across parties competing in at least two elections for the DistilBERT-based measure of nostalgia. The dots show the parties with the lowest and highest average levels of nostalgia in each country. The full names of all parties are listed in Table A1.

To assess whether our different measures yield similar conclusions, we z-transform the party-level measures of nostalgia. Table 1 presents the regression results from linear mixed-effects models with random intercepts for countries, parties, and elections. Models 1–4 report the dictionary-based measures (Methods 1–4). Models 5–6 use our machine-learning estimates of

Table 1. Predicting nostalgia for various measurements with standardized dependent variables

	Dictionary-Based Methods (M1–M4)				Machine Learning (M5–M6)	
	M1	M2	M3	M4	M5	M6
(Intercept)	0.02 (0.10)	−0.11 (0.11)	−0.01 (0.10)	−0.15 (0.10)	0.17 (0.13)	0.21 (0.12)
Cultural Conservatism	0.10*** (0.02)	0.08*** (0.02)	0.08*** (0.02)	0.07** (0.02)	0.07** (0.02)	0.08** (0.02)
Government	0.12* (0.05)	0.08 (0.05)	0.11* (0.05)	0.13* (0.05)	0.08 (0.05)	0.05 (0.05)
Vote Share	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
Unemployment ($t-1$)	0.00 (0.01)	0.02** (0.01)	0.01 (0.01)	0.02** (0.01)	0.01 (0.01)	0.00 (0.01)
AIC	4,157.19	4,062.81	4,273.12	4,187.26	4,135.66	4,081.72
BIC	4,205.52	4,111.14	4,321.45	4,235.59	4,184.00	4,130.05
Log Likelihood	−2,069.59	−2,022.40	−2,127.56	−2,084.63	−2,058.83	−2,031.86
N	1,588	1,588	1,588	1,588	1,588	1,588
N Groups: Parties	365	365	365	365	365	365
N Groups: Elections	260	260	260	260	260	260
N Groups: Countries	24	24	24	24	24	24

Linear mixed-effects models with random intercepts for countries, parties, and elections. Standard errors in parentheses. M1: Base dictionary; M2: Base dictionary + embeddings dictionary; M3: Base dictionary + positive sentiment; M4: Base dictionary + embeddings dictionary + positive sentiment; M5: Bag-of-words classifier (SVM); M6: Transformer-based classifier (DistilBERT). *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

nostalgia. The coefficients for cultural conservatism are statistically significant and have similar sizes across all measures. A one-unit increase on the scale, which ranges from -5.03 to 5.26 , corresponds to an increase of 0.07 – 0.1 standard deviations in nostalgic rhetoric. Government parties tend to be slightly more nostalgic than opposition parties in elections, but the difference only reaches statistical significance for the dictionary-based approaches.

The results indicate that the strongest predictor for nostalgia is the party's position on cultural conservatism. In the next step, we investigate the robustness of this measure of ideology. Table 2 presents five robustness tests based on the DistilBERT-based nostalgia measure. The dependent variable is now measured on the original scale (number of nostalgic sentences per 1,000 sentences). Model 1 uses the measure of cultural conservatism, while Model 2 replaces the measure with a manifesto-based measure of parties' economic left-right position (Lowe et al. 2011).⁶ Model 3 includes both ideological variables in the same regression model. Model 4 uses the party family from the Manifesto Project (Volkens et al. 2021) as an indicator of ideology, while Model 5 adds a dummy variable for populist parties from the PopuList project (Rooduijn et al. 2019).

Nationalist, Christian democratic, and Conservative parties are by far the most nostalgic, while socialist parties are the least nostalgic, on average. Notably, being a populist party does not explain nostalgic rhetoric beyond what party family indicators capture (Model 5). In SI Section E.3, we apply the party family codings from ParlGov (Döring and Manow 2021) and the Chapel Hill Expert Survey (Bakker et al. 2020). The results based on three different measures of party families suggest that right-wing, radical right, and nationalist parties express the highest levels of nostalgic rhetoric.

As additional robustness checks, we run separate regression models for each region (Northern, Central and Eastern, Western, and Southern Europe). Nationalist parties are the most nostalgic in all four regions, while Social Democratic, Socialist, and Ecological Parties tend to be the least

⁶We do not rely on the general left-right scale (RILE) from the Manifesto Project since RILE contains both economic and cultural components. Instead, we include Lowe et al.'s (2011) scale 'State Involvement in the Economy' as a proxy of the economic left-right position. The manifesto-based measure of economic left-right positions correlates highly ($r = 0.7$) with the economic left-right positions from the Chapel Hill Expert Survey (Bakker et al. 2020). See SI Section E.4 for more details. We thank one of the reviewers for this suggestion.

Table 2. Predicting nostalgic sentences (per 1,000 sentences; DistilBERT measure) using various measures of party ideology

	M1	M2	M3	M4	M5
(Intercept)	28.65*** (3.05)	27.50*** (3.27)	27.22*** (3.15)	46.28*** (4.12)	49.35*** (4.75)
Government	1.30 (1.24)	1.20 (1.24)	1.33 (1.24)	1.31 (1.24)	1.27 (1.24)
Vote share	-0.05 (0.07)	-0.04 (0.07)	-0.04 (0.07)	-0.08 (0.07)	-0.08 (0.07)
Unemployment (<i>t</i> -1)	0.02 (0.18)	0.05 (0.18)	0.05 (0.18)	0.06 (0.18)	0.06 (0.18)
Cultural conservatism	1.89** (0.57)		2.07*** (0.59)		
Economic left-right position		-0.49 (0.49)	-0.81 (0.50)		
Party family: Christian Dem. (ref.: Nationalist)				-14.37*** (3.99)	-17.36*** (4.61)
Party family: Conservative				-15.57*** (4.09)	-17.78*** (4.43)
Party family: Ecological				-23.59*** (4.52)	-26.64*** (5.09)
Party family: Liberal				-22.19*** (3.73)	-25.05*** (4.33)
Party family: Other				-19.34*** (3.79)	-21.85*** (4.26)
Party family: Social Dem.				-17.96*** (3.83)	-21.08*** (4.52)
Party family: Socialist				-23.57*** (3.81)	-26.07*** (4.27)
Populist party					-4.15 (3.20)
AIC	14,270.27	14,279.99	14,269.24	14,216.68	14,212.84
BIC	14,318.60	14,328.32	14,322.94	14,297.23	14,298.76
Log Likelihood	-7,126.14	-7,131.00	-7,124.62	-7,093.34	-7,090.42
<i>N</i>	1,588	1,588	1,588	1,588	1,588
<i>N</i> Groups: Parties	365	365	365	365	365
<i>N</i> Groups: Elections	260	260	260	260	260
<i>N</i> Groups: Countries	24	24	24	24	24

Linear mixed-effects models with random intercepts for countries, parties, and elections. Standard errors in parentheses. ****p* < 0.001; ***p* < 0.01; **p* < 0.05.

nostalgic parties. Social Democratic parties in Southern Europe are an exception (Table A12). These findings point to similarities across Europe and align with nostalgic feelings in the public since ideologically right-leaning citizens tend to be the most nostalgic (De Vries and Hoffmann 2018; Versteegen 2023). Figure A8 shows that nostalgic rhetoric remained relatively stable over time in all regions and is not a recently introduced form of campaign communication.

The PolNos dataset allows us to further specify the concept of political nostalgia according to whether it relates to material or non-material aspects. On the one hand, nostalgia may relate to the economy and a longing for a more prosperous past. On the other hand, nostalgia may refer to culture and an attachment to cultural traditions that no longer exist. We investigate which aspect is more prevalent by fine-tuning the measure of nostalgia using the manifesto codings of the policy area associated with nostalgic quasi-sentences. We classify all 693,057 (quasi-) sentences with information on the policy area into cultural, economic, and other policy areas (see the detailed description in SI Section F). Based on our dictionary approach, 38 per cent of nostalgic sentences can be classified as cultural nostalgia, while only 15 per cent fall into one of the economic policy areas. The prevalence of cultural nostalgia is even higher for the measures relying on machine learning. According to the DistilBERT approach, 68 per cent of sentences classified as nostalgic can

be regarded as cultural nostalgia. Partisan nostalgia predominantly focuses on aspects such as culture, the national way of life, multiculturalism, and traditional morality.

Conclusion

Our findings confirm that nostalgia is a common feature of party communication. Nostalgic references increase as parties adopt more conservative positions on cultural or post-materialist issues. Even socially liberal parties use nostalgic references, but not as often as their conservative counterparts. Our measurement strategy has shown that these effects are largely robust, independent of whether one adopts a dictionary, word embedding, sentiment, or a machine learning approach.

The PolNos data (Müller and Proksch 2023a) provide a range of new applications. At the party level, we need to understand to what extent nostalgia can really change voters' minds. While we have explored the presence of these statements, we do not know yet to what extent they matter electorally. At the voter level, future studies could incorporate the information in the dataset for survey experiments. Such an approach will help us understand the conditions under which voters may approve nostalgic messages, given that parties come from different ideological backgrounds and voters have different levels of nostalgia themselves. Future work could also focus on the political economy of nostalgia, studying whether parties turn to nostalgic appeals in times of a specific economic crisis. While unemployment does not seem to be a general predictor of nostalgia, there may be heterogeneity for specific party families, regions, or periods. Finally, surveys suggest that nostalgia may contribute to support for radical right parties (Lammers and Baldwin 2020; Versteegen 2023) and negative feelings towards immigrants (Smeeke et al. 2021; Smeeke and Verkuyten 2015). Future studies could assess the connection between levels of immigration, support for radical right parties, and the prevalence and exact nature of nostalgic rhetoric. Ultimately, we hope that the PolNos datasets, our hand-coded sentences, and the fine-tuned transformer model encourage other scholars to investigate the effects of nostalgia on party competition, voter persuasion, and public opinion.

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Data availability statement. Replication data for this article can be found in Harvard Dataverse at: <https://doi.org/10.7910/DVN/W8VGJF>.

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References

- Andrews-Lee C and Liu AH (2021) The language of legacies: The politics of evoking dead leaders. *Political Research Quarterly* 74(3), 658–73.
- Armingeon K et al. (2022) Comparative Political Data Set 1960–2020. Zurich: Department of Political Science, University of Zurich. Available from <https://www.cpsds-data.org>
- Bakker R et al. (2020) 1999–2019 Chapel Hill Expert Survey Trend File. Version 1.2. Available from <https://chesdata.eu>
- Baldwin M and Lammers J (2016) Past-focused environmental comparisons promote proenvironmental outcomes for conservatives. *Proceedings of the National Academy of Sciences of the United States of America* 113(52), 14953–57.
- Bates D et al. (2015) Fitting linear mixed-effects models using lme4. *Journal of Statistical Software* 67(1), 1–48.

- Benoit K et al.** (2018) quanteda: an R package for the quantitative analysis of textual data. *The Journal of Open Source Software* 3(30), 774.
- Betz H-G and Johnson C** (2004) Against the current—stemming the tide: The nostalgic ideology of the contemporary radical populist right. *Journal of Political Ideologies* 9(3), 311–27.
- Chan C-H et al.** (2021) rio: A Swiss-army knife for data I/O. R package version 0.5.29.
- Dahl DB et al.** (2019) xtable: Export tables to LaTeX or HTML. R package version 1.8–4.
- Davalos S et al.** (2015) ‘The good old days’: An examination of nostalgia in Facebook posts. *International Journal of Human-Computer Studies* 83, 83–93.
- De Vries CE and Hoffmann I** (2018) *The Power of the Past: How Nostalgia Shapes European Public Opinion*. Gütersloh: Bertelsmann Foundation.
- De Vries E et al.** (2018) No longer lost in translation: Evidence that Google Translate works for comparative bag-of-words text applications. *Political Analysis* 26(4), 417–30.
- Döring H and Manow P** (2021) Parliaments and Governments Database (ParlGov): Information on Parties, Elections and Cabinets in Modern Democracies. Development Version. Available from <http://parlgov.org>
- Elçi E** (2022) Politics of nostalgia and populism: Evidence from Turkey. *British Journal of Political Science* 52(2), 697–714.
- Frischlich L et al.** (2023) Populists’ use of nostalgia: A supervised machine learning approach. *International Journal of Communication* 17, 2113–37.
- Gilardi F et al.** (2023) ChatGPT outperforms crowd-workers for text-annotation tasks. *Proceedings of the National Academy of Sciences of the United States of America* 120(3), e2305016120.
- Hargrave L and Blumenau J** (2022) No longer conforming to stereotypes? Gender, political style, and parliamentary debate in the UK. *British Journal of Political Science* 52(4), 1584–1601.
- Hooghe L and Marks G** (2009) A postfunctionalist theory of European integration: From permissive consensus to constraining dissensus. *British Journal of Political Science* 39(1), 1–23.
- Kassambara A** (2022) ggcorrplot: Visualization of a correlation matrix using ggplot2. R package version 0.1.4.
- Kim-Leffingwell S** (2023) Personality traits, democratic support, and authoritarian nostalgia. *Social Science Quarterly* 104(4), 619–35.
- Kim I et al.** (2021) Do past-focused environmental messages promote pro-environmentalism to conservatives? A pre-registered replication. *Journal of Environmental Psychology* 73, 101547.
- Kriesi H et al.** (2008) *West European Politics in the Age of Globalization*. Cambridge: Cambridge University Press.
- Lammers J and Baldwin M** (2018) Past-focused temporal communication overcomes conservatives’ resistance to liberal political ideas. *Journal of Personality and Social Psychology* 114(4), 599–619.
- Lammers J and Baldwin M** (2020) Make America gracious again: Collective nostalgia can increase and decrease support for right-wing populist rhetoric. *European Journal of Social Psychology* 50(5), 943–54.
- Laurer M et al.** (2023) Less annotating, more classifying: Addressing the data scarcity issue of supervised machine learning with deep transfer learning and BERT-NLI. *Political Analysis* FirstView. <https://doi.org/10.1017/pan.2023.20>
- Laver M and Garry J** (2000) Estimating policy positions from political texts. *American Journal of Political Science* 44(3), 619–34.
- Leifeld P** (2013) texreg: Conversion of statistical model output in R to LATEX and HTML tables. *Journal of Statistical Software* 55(8), 1–24.
- Lowe W et al.** (2011) Scaling policy preferences from coded political texts. *Legislative Studies Quarterly* 36(1), 125–55.
- Lüdtke D** (2018) ggeffects: Tidy data frames of marginal effects from regression models. *Journal of Open Source Software* 3(26), 772.
- Matthieß T** (2020) Retrospective pledge voting: A comparative study of the electoral consequences of government parties’ pledge fulfilment. *European Journal of Political Research* 59(4), 774–96.
- Mudde C** (2007) *Populist Radical Right Parties in Europe*. New York: Cambridge University Press.
- Müller S** (2022) The temporal focus of campaign communication. *The Journal of Politics* 84(1), 585–90.
- Müller S and Proksch S-O** (2023a) PolNos: Political Nostalgia in Party Manifestos. Harvard Dataverse, V1. Available from <https://doi.org/10.7910/DVN/L198GI>
- Müller S and Proksch S-O** (2023b) Replication Data for: Nostalgia in European Party Politics: A Text-Based Measurement Approach. Available from <https://doi.org/10.7910/DVN/W8VVGJF>, Harvard Dataverse, V1.
- Proksch S-O et al.** (2019) Multilingual sentiment analysis: A new approach to measuring conflict in legislative speeches. *Legislative Studies Quarterly* 44(1), 97–131.
- Regan A** (2022) Meloni capitalises on cultural nostalgia in a bid to make Italy great again. *Business Post*, 1 October 2022.
- Rooduijn M et al.** (2019) The PopuList: An Overview of Populist, Far Right, Far Left and Eurosceptic Parties in Europe. Available from <https://popu-list.org>
- Sanh V et al.** (2019) DistilBERT, a distilled version of BERT: Smaller, faster, cheaper and lighter. In *5th Workshop on Energy Efficient Machine Learning and Cognitive Computing – NeurIPS 2019*.
- Smeekes A and Verkuyten M** (2015) The presence of the past: Identity continuity and group dynamics. *European Review of Social Psychology* 26(1), 162–202.

- Smeekes A et al.** (2021) Longing for the 'good old days' of our country: National nostalgia as a new master-frame of populist radical right parties. *Journal of Theoretical Social Psychology* 5(2), 90–102.
- Spirling A** (2023) Open generative AI models are a way forward for science. *Nature* 616, 413.
- Steenvoorden E and Hartevelde E** (2018) The appeal of nostalgia: The influence of societal pessimism on support for populist radical right parties. *West European Politics* 41(1), 28–52.
- Theocharis Y et al.** (2016) A bad workman blames his tweets: The consequences of citizens' uncivil Twitter use when interacting with party candidates. *Journal of Communication* 66(6), 1007–31.
- Versteegen PL** (2023) Those were the what? Contents of nostalgia, relative deprivation and radical right support. *European Journal of Political Research* FirstView. <https://doi.org/10.1111/1475-6765.12593>
- Volkens A et al.** (2021) The Manifesto Data Collection: Manifesto Project (MRG/CMP/MARPOR). Version 2021a. Berlin: Wissenschaftszentrum Berlin für Sozialforschung. Available from <https://doi.org/10.25522/manifesto.mpds.2021a>
- Watanabe K and Sältzer M** (2023) Semantic temporality analysis: A computational approach to time in English and German texts. *Research & Politics* 10(3).
- Wickham H et al.** (2019) Welcome to the tidyverse. *Journal of Open Source Software* 4(43), 1686.
- Wildschut T et al.** (2014) Collective nostalgia: A group-level emotion that confers unique benefits on the group. *Journal of Personality and Social Psychology* 107(5), 844–63.
- Wolf T et al.** (2019). HuggingFace's Transformers: State-of-the-art Natural Language Processing. <https://doi.org/10.48550/arXiv.1910.03771>
- Young L and Soroka SN** (2012) Affective news: The automated coding of sentiment in political texts. *Political Communication* 29(2), 205–31.