

# Political parties' policy preferences on environmental issues in German border regions

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## *Abstract*

Cross-border cooperation is an increasingly important issue in the EU, but little is known about its influence on domestic politics in EU member states. Previous studies suggest that border regions can influence political attitudes and party positions, but systematic analysis of these variations is lacking. We use Local Manifestos Project texts to measure the environmental policy positions of political parties by location in Germany. By comparing the distance from the border of each locally-based party with the position expressed in their manifesto, we could identify any systematic variation in position relative to border proximity. We found minimal variation within parties regarding salience and position on environmental issues, suggesting that local branches of major parties tend to adopt similar strategies, possibly not adjusting the content of their electoral proposals to meet the specific demands of their constituents.

## *1. Introduction: Do border regions matter for European politics?*

The European Union (EU) is the world's best-known example of regional integration. Nevertheless, there are increasing calls for more national sovereignty. The majority of British voters in favour of Brexit is the most obvious and radical manifestation of this desire 'to take back control' to date. However, there are also examples of similar sentiments in other countries and regions. Prominent cases include France's *Rassemblement National* (formerly Front National), Sweden's *Sverigedemokraterna*, Hungary's *Fidesz*, Italy's *Fratelli d'Italia* and *Lega* as well as Germany's *Alternative für Deutschland* (AfD). Unsurprisingly, political scientists have not only extensively studied the causes (e.g., Basile & Mazzoleni, 2020; Braun et al., 2019, 2020; Braun & Reinl, 2023; Conti et al., 2018; Heinisch et al.,

2020; König & Wenzelburger, 2022; Vasilopoulou, 2018) but also some of the consequences (e.g., Bergmann et al., 2021; Börzel et al., 2023; Börzel & Hartlapp, 2022; Ripoll Servent, 2022; Ripoll Servent & Panning, 2019; Wunsch & Bélanger, 2023) of Eurosceptic movements, nationalist tendencies and current disintegration phenomena.

To date, these analyses have focused on either country-specific (comparative) case studies or EU-wide, cross-national studies. The regions below the nation-state level have rarely been considered explicitly (some of the exceptions are for instance: Katsanidou & Mayne, 2024; Mayne & Katsanidou, 2022; Nicoli & Reinl, 2020). However, the available empirical evidence shows that the regions in Europe play an essential role as local representatives of interests in the course of the integration of European societies and cultures, and in the success or failure of the political project of European integration (Schakel, 2020). One reason for this can be found in the economic differences existing across the regions of Europe (Katsanidou & Mayne, 2024). Such regional inequalities have more recently been studied under the common framework of so called 'left-behind places' in Europe and from the perspective of a new geography of Euroscepticism (Dijkstra et al., 2020; Katsanidou & Mayne, 2024; Rodríguez-Pose, 2018; Schraff & Pontusson, 2024; Vasilopoulou & Talving, 2024). The general argument behind these studies is that European regions with particular characteristics (e.g., poorer vs. richer regions) of different nation states have more similarities than the regions within one and the same nation state. However, inner-European border regions do not play any significant role here. This is surprising, as such inner-European border regions may also share more characteristics with neighbouring regions of a different nation state than a faraway region within the same nation state. The two neighbouring regions Saarland (in Germany) and Lorraine (in France) might for example share more similarities than Saarland with Berlin or Lorraine with Paris.

Therefore, the main argument of our chapter is that border regions matter and should be investigated in appropriate detail. This is what scholars from border studies have pointed out for decades for a number of reasons. The main argument that inner-European border regions should be studied appropriately is that around 150 million Europeans, i.e., a third of the EU population, live in border regions within Europe. The EU itself also points out that inner-European border regions must be seen as living labs of European integration (European Commission, 2021). The European idea and

the functioning of the EU are experienced on a daily basis and sometimes put to the test in these European regions (Bürkner, 2020; Decoville, 2019; Durand et al., 2020; Favell et al., 2012; Hippe et al., 2022; Kuhn, 2011; Reitel et al., 2022; Wassenberg & Reitel, 2020). These experiences came to the fore during the coronavirus pandemic, for instance (Blauberger et al., 2023; Brodowski et al., 2023; Gerst et al., 2021; Weber, 2022). Most recently, the fact that border regions might matter has also been noticed (again)<sup>1</sup> by scholars of European politics, although the empirical evidence is far from being conclusive here. Bauhr and Charron (2023) show empirically that European citizens that live close to an inner-European border have a stronger European identity, whereas two other studies provide empirical evidence for the exact contrary: Nasr and Rieger (2024) show that border region residents all over Europe are more Eurosceptic in terms of both actual voting behaviour and political attitudes. Rehm et al. (2024) illustrate for the case of Germany that living in a border region is unrelated to increased attachment to Europe.

Theoretically, however, citizens' preferences are not the only relevant factor for a political system, but also how political actors deal with particular challenges and issues – this is true for all political systems as well as for the European democracies and democracy in border regions. From the perspective of systems theory (Easton, 1975), political parties enter input into the political system in the shape of demands and thus stimulate political competition over the major issues at stake. Accordingly, one of the key actors in our representative democracies in Europe are political parties (Green-Pedersen, 2019; Grossman & Guinaudeau, 2021): They translate mass preferences into public policy (Key, 1961) and link citizens with political decision-makers assuming representative, expressive and communicative functions (Sartori, 1976). Political parties thus ideally represent the interests of their voters and are supposed to do the same for their voters in border regions. Against this backdrop, the main idea of this chapter is to investigate how political parties deal with political preferences which are of particular interest in border regions. The subsequent section describes the theoretical argument in more detail before we proceed with the empirical analyses and present the findings.

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1 So far, Kuhn (2012) was among the rare scholars studying the question how residence in border regions impacts European attitudes from an explicit political science perspective.

## 2. Theoretical argument: Border region's interests and their representation through political parties

*Do residents in border regions have special interests which would require particular interest representation compared to non-border regions?* There is vibrant interdisciplinary scholarly research on border regions – scholars mainly argue that residents of border regions share particular preferences compared to residents from non-border regions (Favell et al., 2012; Gerst et al., 2021; Lechevalier & Wielgohs, 2013; Wassenberg & Reitel, 2020; Weber, 2022). The bottom line is that ‘border regions serve as culturally and politically seismographic zones’ (Bürkner, 2020, 545) and thus share particular interests, preferences and challenges. Traditional examples for such interests in border regions are cross-border mobility, cross-border health care, cross-border economic and political cooperation as well as cross-border cultural exchange such as shared languages, cultural events and also tourism. In addition to these usual suspects of cross-border issue areas, environmental political issues represent an interesting case. Environmental challenges such as floods or droughts do not stop at national borders and often demand cooperation between neighbouring countries. Climate change and all related problems are certainly the most obvious examples of the fact that environmental challenges are borderless. It is a global issue that affects peace and security worldwide, and strategies to respond and adapt to it are likely to extend beyond geopolitical boundaries as well. The same is of course true for inner-European borders.

This recognition is not new; over the past three decades, reports from the Intergovernmental Panel on Climate Change (IPCC) have consistently underlined the consensus among scientists regarding the transnational impacts of natural disasters, droughts, storms, and climate-induced migration (e.g., IPCC, 2014). These challenges manifest themselves as concerns that transcend the boundaries of different nations and therefore require collaborative efforts at the international level (European Commission, 2021). Despite a common understanding of the need for transnational cooperation in tackling climate change, border regions are currently lacking detailed EU policy initiatives. While the scientific and political communities agree on the urgency of the issue, with a prevailing consensus in favour of cross-border climate action and institutional cooperation, the policy discourse at the EU level does not seem to fully embrace this imperative. Although numerous projects and frameworks are presented within the EU context, laying the groundwork for prospective model initiatives, the available literature on

this subject matter is notably sparse within the past two or three decades, beside publications highlighting exemplary projects (INTERREG, 2024). Moreover, this discourse is permeated by a discernible emphasis on models from the United States and less so from European countries.

Europe's rich tapestry of cultures, historical legacies and, in particular, intricate networks of border regions, play a central role in the landscape of European integration (European Commission, 2022). It therefore faces the challenges of promoting institutional cross-border cooperation, a dynamic that the European Commission addresses by dividing it into four clusters (European Commission, 2021):

1. Resilience through deeper institutional cooperation
2. More and better cross-border public services
3. Vibrant cross-border labour markets
4. Border regions for the European Green Deal.

These strategic clusters serve as avenues through which border regions worldwide, with a particular emphasis on Europe, can navigate the complexities of cross-border collaboration. Notably, these approaches are designed to empower border regions to experiment with innovative solutions and cultivate a cross-border exchange (European Commission, 2021). As already articulated by Blatter (2000), cross-border regions can serve as ideal platforms for harmonising the potency and dynamism inherent in diverse systems with those capable of seeking compromises and fostering integration (Blatter 2000). In his opinion, however, border regions need tailor-made solutions and policies in order to function, generate the maximum benefit, and counteract existing obstacles (Blatter, 2000). A paradigm shift in this context is epitomised by the European Green Deal, which assumes a distinctive role as an overarching strategy and the EU's response to the challenges posed by climate change and environmental issues (European Commission, 2021). These challenges include the increasingly blurred borders between different EU member states, which makes it more difficult to protect and manage their territories. As a result, the need for cross-border cooperation has become more pressing than ever.

Illustrating the practical implementation of these ideals, the German Federal Institute for Research on Building, Urban Affairs, and Spatial Development (BBSR), in its documentation on funding opportunities for transnational cooperation, underscores the significance of providing citizens with a centralised reference document that amalgamates strategies and impulses towards a sustainable Europe. This document comprehensively

outlines the interdisciplinary steps required for progress (BBSR, 2022, 11). Moreover, it emphasises the imperative of cross-sectoral collaboration. The BBSR project itself serves as a testament to these principles, engaging with numerous German communities and regions in cross-border initiatives. Furthermore, it has expanded its collaboration to include European partners in the realms of science, business, and politics. This collaborative effort aims to identify and implement solutions through cooperative endeavours. Focused on six transnational cooperation projects from 2021 to 2027 in regions such as the Danube region, Central Europe, the North Sea, North-western Europe, and the Baltic Sea, the project aligns with the overarching goal of fostering a green and climate-neutral Europe (BBSR, 2022, 7).

The borderless nature of the challenges posed by climate change calls for a collective, international response that transcends geopolitical boundaries. However, the integration of border regions into EU climate policy initiatives remains a notable gap, despite this common understanding. The urgency of cross-border climate action is recognised, but the current discourse at the EU level falls short of fully embracing this imperative. There is a lack of comprehensive coverage of the issue in the available literature, with a predominant focus on models from the United States. However, a holistic approach involving scientific, political and community efforts is required to achieve effective cross-border cooperation in the face of climate change. Political parties as one of the key actors in representative democracies in Europe are of utmost interest in this undertaking (Carter et al., 2018; Little, 2023; Lundquist, 2022). This is not only the case because political parties are part of all relevant institutions in the political decision-making procedures of representative European democracies, but also because they operate at different political levels – the subnational, national, and supranational levels of polity.

*How are political parties in border regions expected to represent environmental issues in European border regions?* One of the key functions of political parties is to represent the interests of their voters in general terms; and they are supposed to do this for their voters at all levels of polity. For the European multi-level system of governance, this means from the local to the EU level of polity – moreover, it includes interest representation in particular geographical areas such as inner-European border regions. Climate change and environmental challenges are borderless and often demand cooperation between neighbouring countries. Actions to effectively mitigate climate change (for instance the comprehensive installation of solar power systems, wind energy systems, etc.) and measures to prevent floods

or droughts require transnational, cross-border cooperation. Accordingly, local and regional parties in inner-European border regions in particular are expected to prioritise environmental protection more than parties in non-border regions, because they depend to a larger degree on cross-border cooperation.

Moreover, the idea that local and/or regional parties might have particular policy preferences in some regions is strengthened by the scholarly literature on party competition in different electoral contexts (Braun & Schmitt, 2020; Golder et al., 2017; Gross et al., 2024). We know that subnational party branches face incentives to tailor their programmatic positions to the specific preferences of their constituents (Müller, 2013; Navarrete, 2020). In border regions, where unique political, economic, and cultural dynamics come into play, local parties may need to deviate more from the national party line to better represent their constituents' preferences on issues such as immigration, cross-border trade, environmental challenges, and infrastructure. Moreover, the economic and cultural ties to neighbouring countries may shape local parties' stances and contribute to the construction of regional identities, although recent research shows that border societies are not necessarily overdetermined by their geography (Nasr & Rieger, 2024; Rehm et al., 2024).

To sum up, in view of the empirical fact that regional parties are more ideologically flexible, but also have an incentive to emphasise cross-border issues, we investigate whether party branches in border regions are different compared to party branches in non-border regions. We thus analyse the extent to which local party branches in border regions are different to party branches in non-border regions. More specifically, we investigate these questions with a particular eye to environmental policy preferences as a highly relevant example of a cross-border challenge.

### *3. Research design*

The aim of this research is to analyse the extent to which parties in German border regions adapt their offer to the demands of their constituents. We already mentioned the peculiarities of these territories in which important political issues can also have a transnational nature such as environmental issues. Therefore, in order to address this study, we have to overcome some challenges that are linked to our research design. First, we have to determine the scope of our research. Germany shares borders with nine

other countries. No other country in Europe has as many neighbours. This implies that 10 out of the 16 Länder share a border with another country and the analysis of party positions on the environment must extend down to the local level, as studying it at the regional level would result in border demands being overshadowed by other proposals, especially in the case of larger states such as Bavaria, where the border experience is not uniform across all cities. Therefore, we focus on the local level, and we expect that local branches of political parties would provide more prominence to the environment the closer they are to a foreign border. We are however aware that the local level presents some difficulties, as there will be parties less willing to address environmental issues at this level of governance because the policy competences are more limited.

The second challenge relates to how to measure parties' positions on and the salience they give to the environment. For that we rely on parties' local manifestos. These electoral documents elaborated by the parties represent a reliable source to infer parties' priorities and positions (Braun, 2023). In this respect, one of the problems of using party manifestos is that some issues might not be mentioned in these electoral texts while still being relevant for voters and even for parties. In party manifestos we have information about which policies parties would like to implement if they are elected, but many times it is a statement of what issues parties want to campaign on. Thus, it could happen that parties sometimes ignore some topics in which they have a position that can be seen as electorally disadvantageous or avoid topics that could result in controversy. Therefore, while party manifestos are a reliable source of what issues and topics are relevant for parties and what their positions are, we must also take into account that they do not offer information about all policy dimensions.

In sum, our research strategy is based on analysing parties' positions on the environment, the salience they provide to this topic in their local manifestos, and whether they differ depending on the distance of their district to a foreign border.

#### *4. Data and methods: Quantitative text analysis*

To calculate parties' positions and salience of environmental issues in their local manifestos we use the texts collected by the Local Manifestos Project (Gross and Jankowski 2020). In total there are more than 900 local manifestos covering almost all NUTS 2 regions in Germany (with the

exception of the district of Gießen and Berlin). However, when considering the geographical distribution of manifestos at a lower level of aggregation, the picture is more scattered. Of 401 NUTS 3 regions in Germany, only 79 (19.7 %) are covered by at least one manifesto, and they mostly consist of regions located in the Central-Western part of the country (e.g., North Rhine-Westphalia). Nonetheless, some important clusters do also appear in other parts of the country (e.g., Lower Saxony, see Appendix 1).

The major parties each provide 120 or more manifestos to the corpus, with the exception of *Die Linke* and AfD. Over 200 manifestos are from small and local parties, which contribute one or two manifestos each. Over 60 % of the manifestos come from the 2010s, with relatively few contributions (35) from the 1990s (see Appendix 2).

From all these local manifestos we use text-as-data techniques to identify the sentences referring to environmental issues. We then code them following different procedures of quantitative text analysis in order to obtain measures of the salience of the topic and the position of the party. This analysis is based on word frequencies and modelled according to three distinct methods that vary on the level of supervision from the researcher.

#### 4.1. Dictionary approach

The dictionary approach is often used to automatically code a large corpus of texts (Neuendorf, 2017). A dictionary is a set of words or expressions that measure a concept or domain. In doing so, each word has a score assigned. Thus, we can use a dictionary to identify the number of words associated with a specific domain in text corpora or the percentage of sentences in a document that include at least one of the terms of interest. Therefore, with this technique we can annotate, classify and filter large sets of texts, although with the limitation that a dictionary is often manually compiled and words could be used in different contexts (see Grimmer & Stewart, 2013).

As our aim here is to focus on the environment, we use a domain-specific dictionary of environmental policy in German created by Daniela Braun and Martin Gross (unpublished paper). This dictionary contains 877 tokens, some of them compounded into bigrams (such as '1,5 Grad') and allowing for prefixes, suffixes and declinations. By applying this dictionary, we can identify the share of words that refer to the environment in a document as well as the sentences that contain these words. In sum, we use

this dictionary approach to calculate the salience or prominence given to the environment in German local manifestos as we assume that those texts with a higher percentage of terms associated with the environment are also those devoting more relevance or focusing more on this topic.

To calculate parties' positions on environmental issues based on their local manifestos using a dictionary, we face the challenge that positions result from a combination of terms and, therefore, it is difficult to analyse positions through this method. In order to estimate parties' stances, we have used the above-mentioned dictionary to filter all the sentences containing words associated with the environment. After obtaining a corpus consisting only of sentences that refer to the topic of interest, we run a sentiment analysis on it using another Christian Rauh's sentiment dictionary for political language (Rauh, 2018) that allows us to scale the tone used in those sentences referring to the environment. We assume that a more positive (negative) tone is associated with a more (less) favourable position. Therefore, once we obtain the sentiment scores for each of the sentences containing environmental terms, we subtract the percentage of sentences with a negative tone to the percentage of positive sentences. This way, we have a measure that takes positive values when the number of sentences with a positive tone towards the environment is higher than the number of sentences with a negative tone. We believe that this strategy combining salience and position based on sentiment/tone could offer a broad perspective on how local parties in Germany talk about the environment.

#### 4.2. LSS – Semi-supervised

Our second approach consists of latent semantic scaling (LSS), a semi-supervised scaling technique, available in the R package 'LSX' (Watanabe, 2024), mixing dictionary, supervised and unsupervised machine learning methods (Watanabe, 2021). The key ingredient of this method consists of predefined seed words which identify the concepts to be captured. In this regard, LSS resembles dictionary approaches, but it requires a fraction of the words usually employed by the latter. Seed words allow the algorithm to detect synonyms, and scale documents in a supervised fashion, without the need for time- and resource-consuming efforts in data annotation as for standard supervised machine learning techniques. The synonyms detection, then, is based on the use of a word-embeddings model (i.e., Latent Semantic Analysis) which allows the algorithm to produce low-dimensional

representations of words' semantics and estimate their (synonymic) proximity to the seed words. The proximity between document words and seed words allows the algorithm to scale words first, and then each document. The result at the end of this process is that documents are scaled with polarity scores distributed around a global mean equal to 0.

The nature of the documents to be analysed, as well as other needs, clearly affect how the method is applied, and in our study, we indeed make specific choices which are worth discussing. First, given the rather noisy semantic nature of manifestos deriving from the highly variable (and potentially high) number of topics mentioned in such documents, we employ the feature of the LSS model allowing us to select model terms (i.e., terms related to the topic under investigation). This produces estimations insensitive to topic differences between manifestos not related to the environment issue. Moreover, we select our seed words by relying on the earlier-mentioned environmental dictionary developed by Braun and Gross. This clearly departs from the usually limited number of seed words required by the approach, but robustness checks based on smaller subsets of the dictionary show that our choice is equivalent, if not more reliable and valid, to using smaller sets of seed words. This choice, moreover, allows us to use LSS for estimating salience rather than positions. The dictionary employed as seed words does not provide scores for the terms contained in it. As a consequence, these can solely be used to compute the distance between our seed words and model terms in one direction, which in short represents whether or not local manifestos address environment-related topics.

### 4.3. Wordfish

For our third method, we use the Wordfish scaling algorithm (Slapin & Proksch, 2008) from R's 'quanteda' package, an unsupervised document scaling method which estimates the position of each manifesto based on the same subset of all sentences related to the environment. Each manifesto subset is split into individual words, with endings such as '-en' and '-s' and common stop words such as 'der' and 'ein' removed. The package creates a document frequency matrix, where each row corresponds to a document subset, each column to a word or word stem, and each cell contains a number showing the frequency with which a word is used in each subset. The Wordfish algorithm is applied to each row of the matrix to calculate

the likely environmental position of each manifesto relative to each other. The calculations are based on the word frequencies, controlling for the total number of words in the document and the use of words commonly used in other documents. The method assumes that two manifestos which use similar words at similar frequencies are likely to express similar positions, particularly if these words are more often distinct from the words used in other manifestos in the corpus. Unlike the dictionary method, the positive or negative sentiment of the resulting scores is not clearly defined, but documents with similar scores can be thought of as having similar positions on the environment.

## 5. Results

### 5.1. Salience and position

Based on our threefold strategy, which utilises different methodologies to assess the salience of the environment and parties' positions on this topic using local manifestos as a data source, our analysis reveals compelling insights. Our study is restricted to the six major parties in Germany. As shown in figure 1, both the dictionary and LSS methods return similar patterns regarding the salience that parties attribute to the environment in their manifestos. Delving deeper into the details, we observe that *Die Grünen* (The Greens) emerge as the party that allocates greater prominence to environmental issues, while all the remaining ones tend to oscillate around similar median values. However, a few differences appear when considering other parties. For instance, when considering the median of the scores distribution of the AfD as estimated by LSS, this party appears as the one dedicating more salience to the topic after *Die Grünen*. However, in the dictionary approach, it appears as the party attributing less relevance to environmental matters. Despite these differences, and not surprisingly, both methods agree in attributing to the AfD the highest variance in the salience of the environment in their local manifestos, which might be attributed to local branches having more flexibility in allocating space to environmental issues or may simply be a statistical artefact resulting from a lower number of manifestos for this party. In all the remaining cases, differences between parties and methods are almost imperceptible.

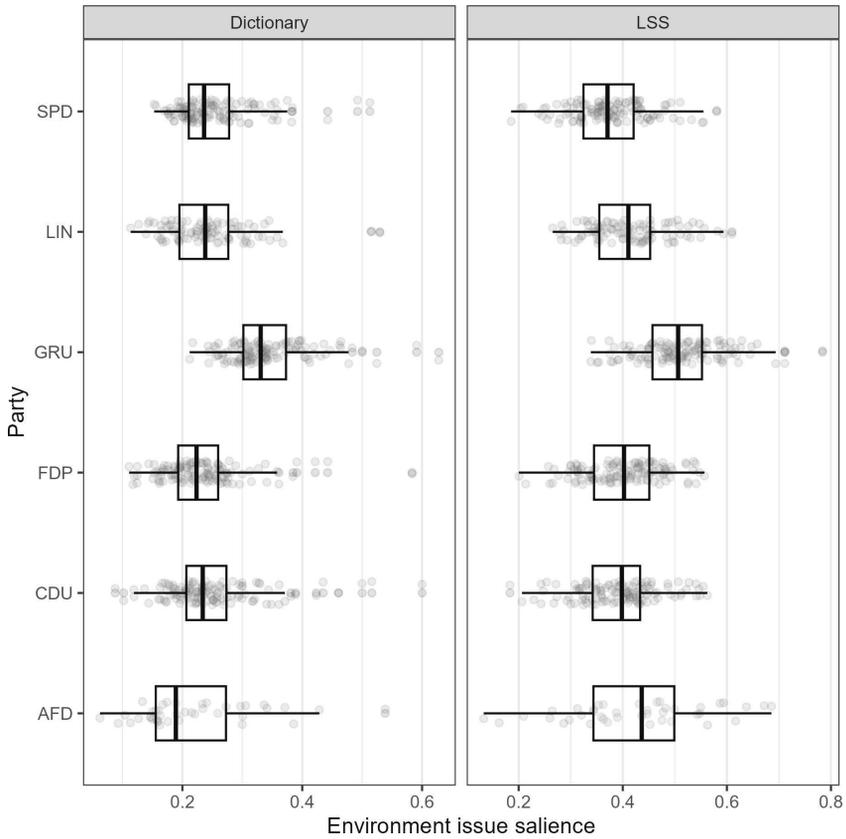


Figure 1. Environment issue salience by party

Note: Salience scores calculated using the dictionary (left) and LLS (right) methods.

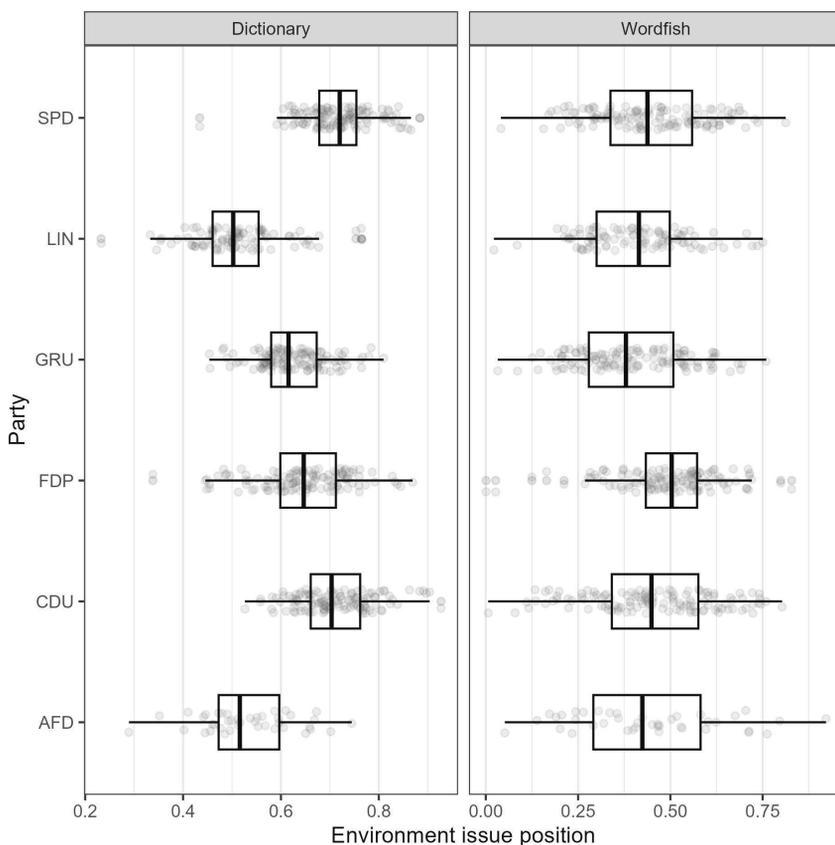


Figure 2. Environment issue position by party

Note: Position scores calculated using the dictionary (left) and Wordfish (right) methods.

Regarding parties' positions, we observe more variability than is observed with salience (see figure 2). As measured with the dictionary, we find that the parties that use a more positive tone when talking about the environment in their manifestos are the SPD and the CDU, while *Die Linke* and the *AfD* are the parties that use more negative language in their statements about the environment. As measured by the Wordfish algorithm, the manifesto environment positions show relatively high variability within parties and relatively low variability between parties. By this measure, the language used in *Die Grünen* manifestos is on average most different to that of the FDP

manifestos and more similar to that of *Die Linke* and, perhaps surprisingly, the AfD. CDU and SPD positions are slightly closer to the middle of the scale on average. However, all parties include a similar number of high and low scores, indicating somewhat varied framing and positioning on the issue from some manifestos regardless of party identity. Meanwhile, the majority of scores are clustered around the centre of the scale, indicating little variation between party positions overall. Though the Wordfish algorithm is intended to enable scaling from left to right or pro to anti on a given issue, the similar patterns between parties demonstrated in figure 2 mean that more precise interpretations of the Wordfish scores are not possible.

These distinct results between methods, specifically the high variability within parties, could serve as evidence of the difficulties of measuring parties' positions on the environment. First, the environment is a topic in politics that could be considered a valence issue, given that parties do not tend to present clear opposition to environmental protection. Therefore, differences in parties' positions are often based on nuances about the way in which they prioritise environmental protection over other issues or policy domains such as economic growth. Second, the methodology used here presents some limitations that were already highlighted. More precisely, in the case of the use of dictionaries and sentiment analysis, parties' positions are scaled based on the tone they used when talking about the topic in their manifesto, which does not necessarily imply a lesser commitment to environmental protection. On the contrary, sentences demanding more intervention on the environment but using a critical tone would be classified as negative. Thus, it is difficult to disentangle whether we observe differences in actual positions or whether these are just distinct ways of framing the topic.

## 5.2. Variations by location

How do the party manifesto scores vary by distance from the border? We theorised that parties will provide distinct prominence and have different positions on environmental issues depending on their distance to a border. More precisely, in those territories closer to a foreign country, parties are expected to devote more space in their manifestos to the environment, given that this is a transnational issue with an impact on the lives of citizens in border regions. In figure 3, we observe that within-party differences in the salience of environmental issues are mostly not associated with proximity to a border. In the case of the dictionary approach, being close

to a foreign country has either no effect or just a very negligible effect on the salience that local parties give to the environment. Specifically, only in the case of *Die Linke* do we observe that the closer to the border, the more space is devoted to the environment in the manifesto. Conversely, the opposite trend is found for the CDU, but again, the effect is very small. Local branches of these six German parties barely differ in how salient they make the environment in their electoral texts, and there seems to be no border effect on it.

The analyses based on LSS estimates mostly confirm the patterns of association seen when using measures of salience computed using dictionary methods. In one case, *Die Grünen*, the sign of the relationship between border distance and LSS-based salience differs from the relationship between border distance and dictionary-based salience. However, in both cases, if we consider the error of the estimates, the correlation between border distance and salience is negligible or substantially non-existent. In another case, the AfD, we find a strong correlation. Indeed, the LSS estimates suggest that the lower the distance of the local branch from the border, the lower the salience attached to environmental issues. While the correlation magnitude is noteworthy, caution is warranted due to the relatively limited number of observations for the AfD, and potential bias introduced by outliers in the distribution of their positions based on distance from the border. With this caveat in mind, the analyses overall suggest a fundamentally weak and inconsistent relationship between environmental salience and distance from the border for German local parties.

The patterns in figure 4 indicate relatively little effects of location on environmental position, as measured by Dictionaries and Wordfish, and again, there is little variation within parties. In the left panel of figure 4, we observe that all lines are almost completely flat based on the scores calculated using the dictionary approach. This indicates there is no intra-party variation in the way they talk about the environment that could be associated with the distance to a foreign border. Similar results can be seen in the right panel for the Wordfish method. The generally flat lines shown for the CDU, *Die Grünen*, and *Die Linke* indicate that all three parties' positions do not vary substantially depending on their proximity to the border. The plots for SPD and FDP show a positive trend as distance from the nearest border increases, although the difference is very mild. Only the AfD shows a notable trend, as Wordfish scores tend to decrease from around 0.5 to 0.3 as the distance from the border increases. This may be a sign that AfD environmental positions are closer to mainstream opinion for

local parties in border regions, but it should be noted that this is based on a comparatively small number of manifestos from this relatively new party.

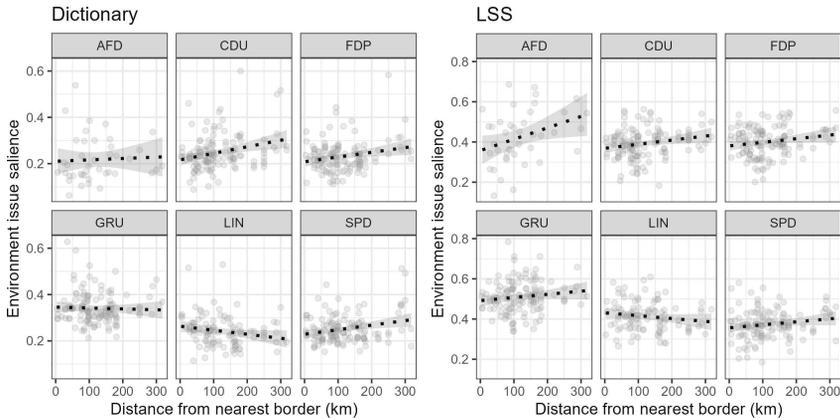


Figure 3. Environment issue salience by party and distance to a foreign border

Note: Salience scores calculated using the dictionary (left) and Wordfish (right) methods.

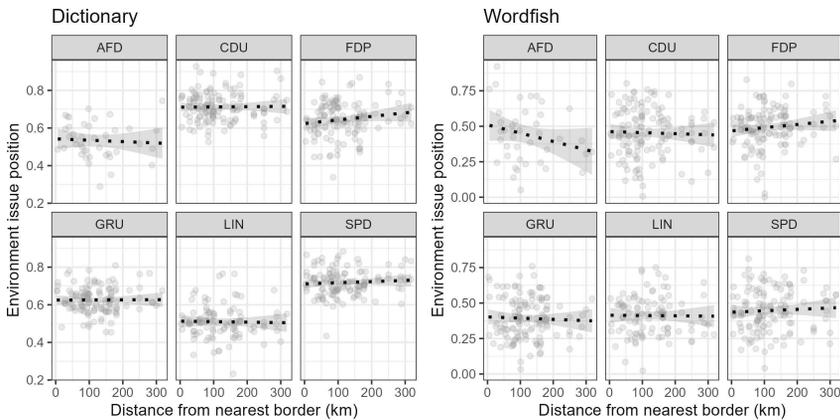


Figure 4. Position on the environment by party and distance to a foreign border

Note: Position scores calculated using the dictionary (left) and Wordfish (right) methods.

## 6. Conclusions

Cross-border cooperation is an increasingly important item on the EU agenda, as highlighted by the European Commission's 2021 report *EU Border Regions: Living labs of European integration* (European Commission, 2021). Though this cooperation has the potential to impact on several issues, from migration and integration to transport and the environment, little is known about how this agenda is likely to influence domestic politics in EU member states. Previous studies suggest that border regions can influence political attitudes and party positions, but systematic analysis of these variations is lacking. Our study therefore took advantage of texts collected by the Local Manifestos Project (Gross & Jankowski, 2020) and recent advances in text-as-data methods to measure the environmental policy positions of political parties by location in Germany, a country at the heart of the EU bordering several other states. By comparing the distance from the border of each local party with the position expressed in their manifesto, we could identify any systematic variation in position relative to border proximity. Our multi-method strategy did not reveal any discernible effect of border regions on the content of parties' proposals in their local manifestos. The minimal variation within parties regarding salience and position on environmental issues suggests that local branches of major parties tend to adopt very similar strategies, possibly not adjusting the content of their electoral proposals to meet the specific demands of their constituents. This observation aligns with the second-order national election nature of local elections, implying that citizens in border regions encounter greater difficulties in having their demands and concerns addressed by political parties at the local level, despite this tier of government being the closest to citizens. That said, our findings are based on a relatively small and unevenly distributed sample of manifestos, and only consider their positions on environmental issues. Future research can consider expanding the dataset either within Germany or by adding local party manifestos from other countries. Other issues such as migration and European integration may also encourage parties to adjust their positions relative to their border or non-border locations in a more predictable manner. Finally, advances in computational power mean that more precise analysis of textual content and party positions, for example to compare the framing and context of specific issues within manifestos and other political texts, should enable a more fine-grained study of the positions described here.

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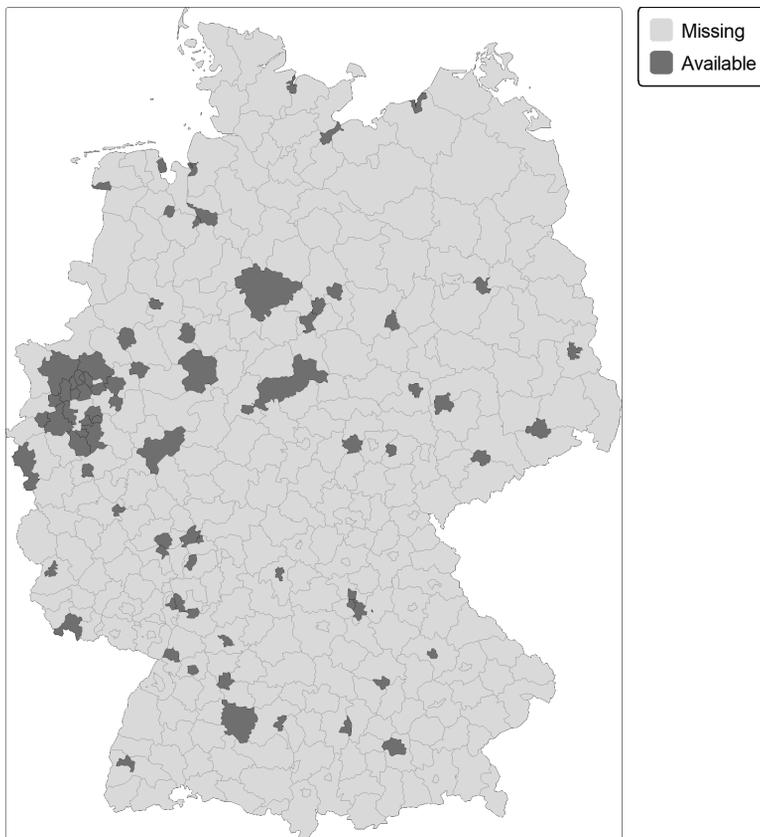
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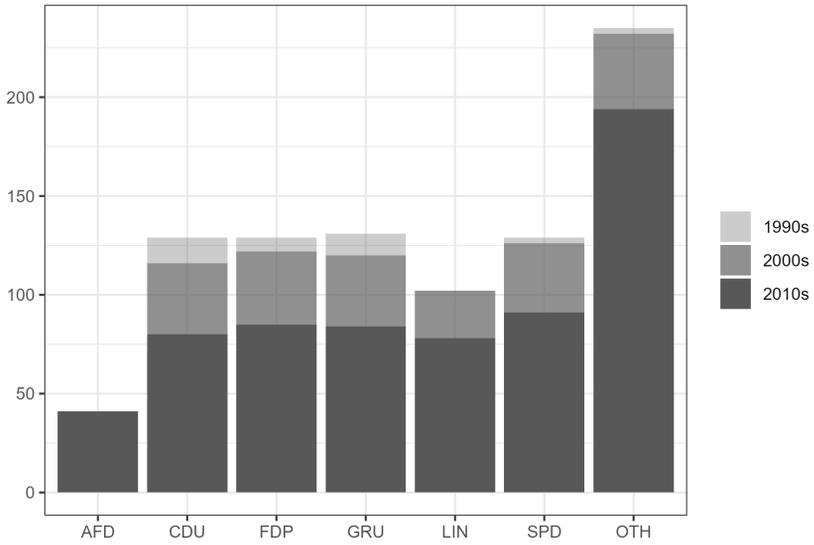
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Appendix



Appendix 1: NUTS3 regions covered by at least one manifesto



*Appendix 2: Local manifesto quantities by party and decade, 1990s-2010s*

