

Decoding Sentiments about Migration in Portuguese Political Manifestos (2011, 2015, 2019)

Erik Bran Marino

Universidade de Évora
erik.marino@uevora.pt

Renata Vieira

Universidade de Évora
renatav@uevora.pt

Jesus Manuel Benitez Baleato

Universidade de Santiago de Compostela
jesusmanuel.benitez.baleato@usc.gal

Ana Sofia Ribeiro

Universidade de Évora
asvribeiro@uevora.pt

Katarina Laken

Fondazione Bruno Kessler
alaken@fbk.eu

Abstract

This research conducts a mixed-method analysis of Portuguese political manifestos from 2011, 2015, and 2019, focusing on immigration discourse. We employed Natural Language Processing (NLP) sentiment analysis, with a Multilingual BERT model, alongside qualitative examination of key statements. Findings indicate a generally positive sentiment towards migration among mainstream parties, consistently with Portugal's socio-economic context. However, the 2019 election highlighted a shift to polarized views, especially from the emerging extreme-right party Chega, mirroring wider European trends. This study underscores the interplay between political rhetoric, socio-economic realities, and immigration policy, showcasing the applicability and limitations of NLP in political sentiment analysis.

1 Introduction

Political parties significantly influence public discourse and policies through their manifestos, which may reveal their stance and strategies on key issues, such as migration. Portugal, with its diverse political landscape, offers a rich context for examining migration discourse. The manifestos of its varied political parties, ranging across the political spectrum, provide insights into evolving migration stances, shaped by Portugal's historical, cultural, and socio-economic dynamics. To explore this dynamic interaction further, this study undertakes a systematic analysis of sentiment trends around migration in the manifestos of Portuguese political parties¹ across three legislative election years: 2011, 2015, and 2019. This study analyzes the semantics and sentiments in political manifestos to trace the evolution of migration-related rhetoric across the political spectrum over time. It aims to

¹The complete list of the parties in English, along with their abbreviation, their original name and election rate can be found in the appendix.

deepen understanding of political communication strategies regarding migration.

According to Pordata², Portugal, with a population of 10,56 millions (M) in 2011, 10,38M in 2015, and 10,35M in 2019, has experienced demographic changes in the last years, particularly in terms of migration and population aging. The number of permanent immigrants in Portugal was 18,820 in 2011, 36,849 in 2015, and significantly increased to 95,382 in 2019. At the same time, the aging population of Portugal is evident, with people over 60 years old constituting a substantial portion of the population: 2,62 M in 2011 (24,81%), 2,79 M in 2015 (26,88%), and 3,01 M in 2019 (29,08%). This trend highlights Portugal's demographic challenge of an increasingly older population. Moreover, Portugal's unemployment rates during these electoral years painted a picture against which parties' discourse evolved. In 2011, the unemployment rate stood at 13.4%, reflecting the aftermath of the global financial crisis. By 2015, it had marginally decreased to 12.9%, and by 2019, it significantly dropped to 6.6%, indicating a gradual recovery and stabilization of the economy. The increase in migration, coupled with an aging population and shifting unemployment rates, provides a complex socio-economic context in which political parties operate and articulate their stances on migration. In 2011, under a socialist Prime Minister, Portugal faced a critical financial situation, leading to troika's intervention with austerity measures (Gonzalez, 2014). The public opinion blamed the socialist party for the economical bad situation of the country (Fernandes, 2011). This set a complex context for political narratives on migration (Pereira and Wemans, 2015). By 2015, the country grappled with the aftermath of economic challenges, influencing political stances during a

²Pordata is the Contemporary Portugal Database that provides authoritative and verified statistics on Portugal and Europe, reachable at pordata.pt.

period of recovery (Hutter et al., 2018; Glatzer, 2022). Contrastingly, the 2019 election took place in a more stable economic climate, affecting parties' approaches to issues like migration (Giuliani, 2022).

In light of Portugal's shifting demographics, economic changes, and varying political climates, it could be insightful to analyze how political manifestos' views on migration have transformed. By exploring changes in the sentiments and rhetoric of Portuguese political parties towards migration, we aim to reveal changes in their priorities, strategies, and ideologies. This analysis is key for understanding political responses to migration's challenges and opportunities, and its broader impact on society and policy. Given Portugal's demographic changes and economic and social transitions, this research focuses on how political narratives and sentiment around migration have shifted, providing insights for policymakers, academics, and the public on the political and practical implications of migration policies. To conclude the introduction, let's focus on the research question: how do the sentiments and rhetoric expressed in Portuguese political parties' manifestos towards migration evolve across different legislative election years, and what does this reveal about the changing political landscape in Portugal regarding migration?

2 Related work

This section assesses existing literature on the use of NLP in analyzing political discourse, with a particular emphasis on Portuguese political manifestos and migration issues. Despite extensive research in these domains, there is a notable gap in sentiment analysis of migration topics within Portuguese political manifestos. Prominent in this field are Orellana and Bisgin (2023), who employ NLP for content analysis of political manifestos. This work reveals the capabilities of NLP in discerning political changes and attitudes. Similarly, Cochrane et al. (2022) illustrate the application of computational methods to understand emotional content in political discourses, underscoring the importance of emotion in political texts. Studies such as (Jalali et al., 2012) explore Portuguese political manifestos but do not specifically address migration issues. Migration remains to a certain extent an unexplored area in the analysis of Portuguese political discourse. Regarding migration in political manifestos, Lisi and Borghetto (2018) examine

populist claims in Portuguese politics, offering insights into the framing of migration. Additionally, Gattinara and Morales (2017) delve into the securitization of immigration in Western Europe, linking public opinion and political parties' approaches to immigration. Furthermore, Haselmayer and Jenny (2017) present a unique methodology for analyzing sentiments in political communication. Their procedure involves creating a negative sentiment dictionary tailored to a specific language and domain through crowdcoding. Despite these contributions, there is a clear gap: no study has specifically applied sentiment analysis on migration in Portuguese political parties' manifestos. This lack is significant, considering the role of migration in global and national politics. Our study addresses this gap by applying sentiment analysis to the migration discourse in Portuguese political manifestos.

3 Methodology

To study the changing sentiment about migration in Portuguese political discourse, we employed a combination of NLP and data analysis techniques, both quantitative and qualitative. The study adhered to the following steps.

3.1 Identifying Migration-Related Terms

The idea is to snowballing sampling migration related terms to gather a comprehensive list. Once retrieved the list we will inquire with regular expressions the documents in order to extract only the sentences with migration related terms. We began by compiling a list of migration-related terms using the Word2Vec CBOW-300 word embedding model from *Repositório de Word Embeddings do NILC*. This model struck a balance between efficiency and richness, making it suitable for our computational limitations. The starting list we qualitatively compile comprehends the following migration related words: 'imigrante', 'refugiado', 'asilado', 'fronteira', 'integração', 'trabalhadores estrangeiros', 'políticas migratórias', 'direitos humanos', 'tráfico de pessoas'. For each term, our script finds and lists the most similar words according to the model's embeddings using cosine similarity, which calculates the cosine of the angle between the two word vectors. The smaller the angle, the greater the similarity. In other terms, a cosine similarity closer to 1 means a greater semantic similarity of the terms. This process brought us to find a list of the 10 most similar words for all the unigrams. However, for

the bigrams, this method did not work: the model was not providing any similar word. Therefore, we chose to focus on single words. Once we had a list of comprehensive migration semantic field, we checked it qualitatively to see the correctness and pertinence of the terms. We then decided to increase the list, by adding also the possible derivatives of the words. For example, for the word “migração”, we added: "migrar", "migratório", "migrantes"³. This choice was made because the manifestos texts were not normalized, nor the stop words and sentence punctuation were removed. This happened because the BERT model works better with raw natural language texts (Devlin et al., 2019), and also because the extraction of the sentences was impossible if the punctuation for sentence termination were removed, as the model did not know where the sentence stopped.

3.2 Extracting The Portuguese Manifestos and the Relevant Sentences from them

We accessed the manifesto data from the Manifesto Project API, a valuable resource for accessing political manifestos, to acquire manifestos from the Portuguese elections of 2011, 2015, and 2019. The Manifesto Project Database (MPD) is a comprehensive collection of political manifestos and election performance data, curated by the Manifesto Research on Political Representation (MARPOR) project. This resource is hosted on the website of the Social Science Research Center Berlin in Germany. It is renowned for its foundation in quantitative content analysis of election programs from over 50 countries, encompassing all democratic elections since 1945. The Manifesto Project stands out as one of the most widely utilized and influential datasets in the field of political science, earning recognition with the prestigious Lijphart/Przeworski/Verba Data Set Award from the American Political Science Association in 2003 for its outstanding contributions to the discipline. This resource is reachable via the Manifesto Project’s free API, using a specified URL call. This URL contains an API key and a list of keys representing specific texts and annotations to be fetched. We received the data all together, and we separated them per party. We applied this same process for each Portuguese election. We, therefore, made a program that checks the sentences from the extracted manifestos containing at least one of the identified

³The final list of words can be found in the Appendix.

migration-related terms, using regular expressions to extract the specific sentences. This is only a string-matching procedure. Finally, a list of migration related terms was made for each manifesto.

3.3 Sentiment Analysis with Multilingual BERT

Once the specific sentences containing migration terms were extracted, to get the sentiment score expressed in the extracted sentences, we employed a multilingual BERT (Bidirectional Encoder Representations from Transformers) model⁴. This BERT model, has been trained for sentiment classification in texts across 12 languages. It allows the user to analyze the sentiment of a text and get predictions for whether the text is positive, neutral, or negative. It has been distilled from a teacher model using annotated data and can be used to analyze sentiment. This model was chosen for its ability to handle multilingual text, with the idea to further expand, in future studies, this same methodology to Spanish and Italian manifestos, allowing a comparative analysis of sentiment across the nations. We applied the BERT model to each extracted sentence to generate a sentiment score for each sentence, indicating whether it conveyed a positive, neutral, or negative sentiment. This score tells the probability that such a sentence is conveying positive, negative or neutral sentiment and it is expressed in a scale from 0 to 1.

3.4 Data Normalization and Aggregation

To ensure consistency and facilitate analysis, we normalized the sentiment scores by converting the BERT model’s probabilities into a binary scale of +1 (positive), 0 (neutral), and -1 (negative). This standardization enabled us to aggregate the sentiment scores at the party and election year levels, allowing us to visualize and compare sentiment trends across different parties and over time. We then made an average sentiment score per document, by averaging the sentiment score from the extracted sentences in each manifesto. This gave us the sentiment score for migration for each party in each election taken into account.

3.5 Sentiment Trends Visualization

Finally, we utilized data visualization techniques to represent the sentiment trends observed across different parties and election years. This involved

⁴xyuan/distilbert-base-multilingual-cased-sentiments-student

creating three distinct graphs, one for each election year, to describe the evolution of sentiment towards migration over time, by showing the average sentiment score per manifesto. Subsequently, other three graphs representing the number of positive or negative sentences in the dataset, were made. The neutral sentences were excluded from the graph, as they found out to be almost not present: in the most of manifestos the number is zero and in few cases there is only one neutral sentence or by maximum two. By following these methodological steps, we analyzed the sentiment expressed towards migration in Portuguese political manifestos from 2011 to 2019. The results are discussed as follows.

3.6 LLMs and Chatbots integration

Large Language models (LLMs) were employed to assist the researchers in some phases of the research, namely code writing (using GPT-4 and Copilot) and document writing refining (GPT-4). In all the cases, all the results were double checked to make sure of the quality and consistency.

4 Results

This section presents a synthesis of our findings, examining both the sentiment scores and the frequency of migration-related discourse. Overall, the sentiment towards immigration in political manifestos has shown a positive trend, with notable consistency in the central parties' pro-immigration rhetoric. This trend contrasts with the far-right's negative discourse, highlighting the beginning of a polarized political landscape on migration issues. An examination of Social Democratic Party (PSD) and Socialist Party (PS) manifestos reveals an emphasis on integrating immigrants into the labor force, resonating with Portugal's low unemployment rates and demographic need for workers. This pragmatic approach suggests a recognition of the economic benefits of immigration, and this attitude can be seen consistently in the three election years. The only party having negative migration sentiment is Enough (CH), which only appears in 2019 election.

4.1 2011 Election Year

All the parties show a positive sentiment in their manifestos towards migration. The Ecologist Party 'The Greens' (PEV) exhibited the highest positive sentiment (1.00) towards migration, but with a limited mention count (2 sentences), suggesting that they have not focused particularly on migration

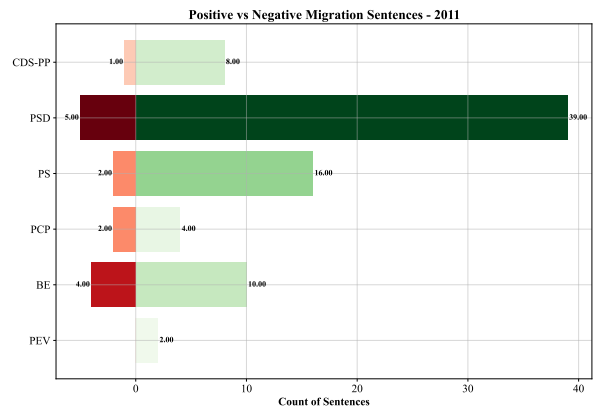


Figure 1: Count of positive and negative sentences per party in 2011 election. The longer the bar, the larger number of sentences. In red the negative sentences; in green the positive ones. The larger the number, the redder or greener the bar color becomes, depending on the polarity. This logic is applied consistently to the other graphs.

topic in their agenda. The PSD and PS showed similarly high positive sentiments (0.77 and 0.74), indicating favorable views towards migration. PSD is the party that focused the most on migration, having a total of 44 sentences related. The Left Bloc (BE) and Portuguese Communist Party (PCP) presented moderate positive sentiments (0.43 and 0.33).

4.2 2015 Election Year

Also in this election all the parties' sentiment toward migration is positive. Portugal Ahead (PàF)'s and PS' manifestos are the ones that mostly mention migration sentences, and also the ones whose average sentiment is the most positive. The PSD/CDS coalition is a recurrent conservative political and electoral partnership in Portugal established by the Social Democratic Party (PPD/PSD) and the People's Party (CDS-PP). In 2015 election they presented at the election with the name of Portugal Ahead (PàF). People-Animals-Nature (PAN) and The Ecologist Party 'The Greens' (PEV) are the parties whose sentiment is less positive. At the same time, they are also the parties that less mention migration. PEV recorded a decreased positive sentiment (0.33), aligning with an increase in migration-related mentions, suggesting a nuanced shift in their migration discourse. Nonetheless, all the parties involved in this election show a positive average sentiment towards migration.

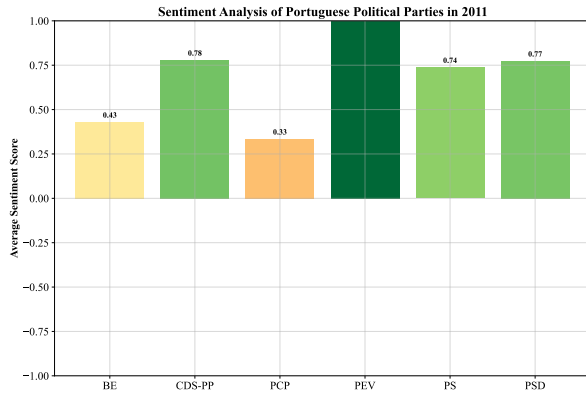


Figure 2: Distribution of average sentiment score per party in 2011 election. The longer the bar, the bigger the average score. The bar gets red if the average sentiment score is negative (< 0); it becomes green if the sentiment is positive (> 0). The stronger the score, the redder or greener the bar color becomes, depending on the polarity. This logic is applied consistently to the other graphs.

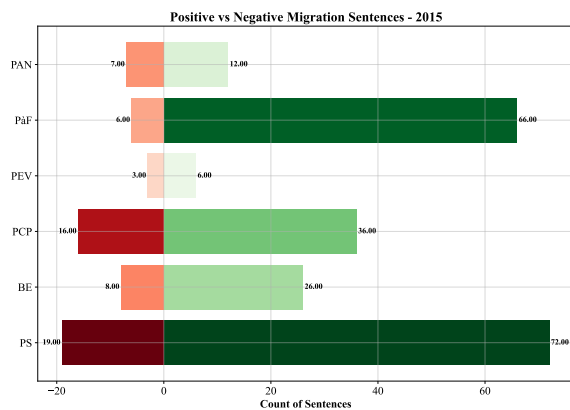


Figure 3: Count of positive and negative sentences per party in 2015 election.

4.3 2019 Election Year

In this election, we can observe a shift of sentiment towards migration. New entrants like Free (L) demonstrated a strong positive sentiment (0.84), indicating a possible progressive stance on migration. Established parties like PSD and PS maintained consistent positive sentiments, signaling a stable and favorable approach over time. A notable change was observed in PEV, showing a stark negative sentiment (-1.00) diverging significantly from previous years. This observation, nonetheless, is based on a single reference. It is, thus, not significant. This is the mentioned sentence:

1. «as situações de conflito não diminuem e aumentam os refugiados e povos deslocados dos

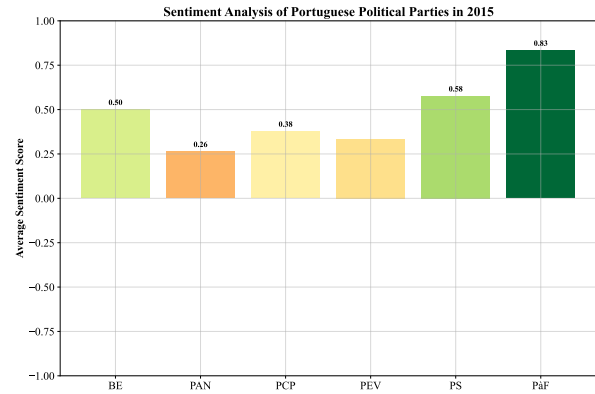


Figure 4: Distribution of average sentiment score per party in 2015 election.

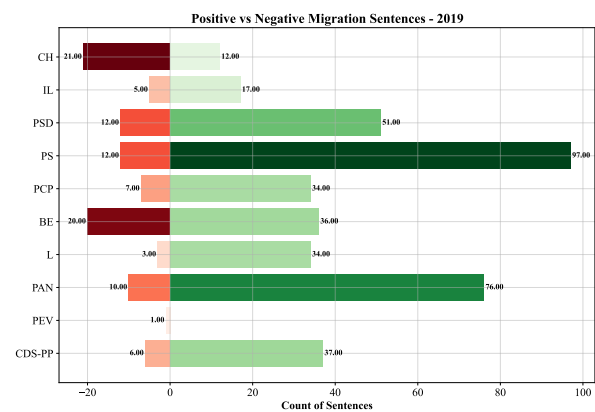


Figure 5: Count of positive and negative sentences per party in 2019 election.

seus territórios»⁵

The sentence contains words and phrases associated with negative sentiments, such as "conflito" (conflict), "não diminuem" (do not decrease), and "refugiados e povos deslocados" (refugees and displaced peoples). These terms typically carry negative connotations, signaling distress, struggle, or undesirable situations. The overall context of the sentence, which talks about increasing conflict and displacement of people, is inherently negative. BERT models are trained to understand the context and not just individual words, thus the overall negative theme of the sentence would contribute to its classification as negative (Xu et al., 2020). Also, there are no words or phrases in the sentence that introduce a positive aspect or counterbalance to the negative themes. Sentiment analysis tools often look for a

⁵The translation is «the situations of conflict do not decrease, and refugees and displaced peoples from their territories increase».

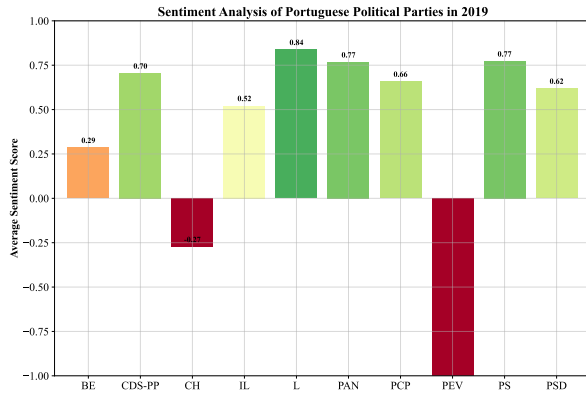


Figure 6: Distribution of average sentiment score per party in 2019 election.

mix of positive and negative cues to determine the overall sentiment, and in this case, the absence of positive cues reinforces the negative classification (Sharif et al., 2016). Nonetheless, as this is the only migration sentence in the whole PEV manifesto, it is not enough data to claim the negative positioning of PEV towards migration. Also in 2019 election the general sentiment trend towards migration is stably positive, with all the parties claiming positive sentences, with the previous exception of PEV and - interesting but not surprising - the far-right party Chega (CH). Founded in 2019 by André Ventura, it is known for its national conservative and right-wing populist stance (Mendes, 2021). The party identifies with nationalist, conservative, and personalist principles. CH advocates strongly against illegal immigration, proposing the deportation of non-working immigrants or those with criminal records. It stands against multiculturalism and the integration of sharia law into the Portuguese legal system (Mendes and Dennison, 2020).

5 Discussion

From a methodological point of view, the findings align with studies, such as (Orellana and Bisgin, 2023) and (Cochrane et al., 2022), which emphasized the utility of sentiment analysis in capturing political stances in manifestos. Nevertheless, the sentiment score in itself is an incomplete information, as we will discuss later. Our findings show a general positive sentiment towards migration across most parties, which interestingly aligns with Portugal's economic context. Given the country's reliance on foreign labor, especially in sectors requiring non-qualified work, the predominantly

positive discourse from central right and left parties appears consistent with its economic necessity, as well as demographic need, considering that the population is aging and decreasing. A more detailed examination of PSD and PS manifestos, as we will observe later on, reveals an emphasis on integrating immigrants into the labor force, resonating with Portugal's low unemployment rates and demographic need for workers. This pragmatic approach suggests a recognition of the economic benefits of immigration. However, especially in 2019 we can observe a dynamic evolution of attitudes towards migration and populist ideological rhetoric. Lisi and Borghetto (2018) found, studying the Portuguese political manifestos from 1995 to 2015 that populist language has primarily been employed by radical left-wing parties as a means to challenge and disrupt a status quo that has been established for over a decade. In 2019 elections the populist discourse arrives also from the extreme-right. These changes are reflective not only of the political and social shifting in Portugal but also of the broader trends in Western politics regarding migration and reflect the complexity of migration as a political issue, subject to various influences, including public sentiment, party ideology, and the socio-economic climate (Kwilinski et al., 2022). The migration policies of European nations have undergone a substantial transformation in the last years. Since the onset of the migration crisis in 2015, there has been a noticeable reinforcement and tightening of measures governing the status of migrants within the territories of these states. During this same period, many European countries experienced a renewed development of radical right parties (Kulaga, 2021). The rise of populist and right-wing parties across Europe and the US, often with anti-immigration stances, together with the 2015 migration crisis, might have influenced the discourse of Portuguese parties, especially those leaning towards the right. The study's findings, as discussed by Bestvater and Monroe (2023), highlight the difference between expressed sentiment and actual political stance. Sentiment scores in political manifestos serve as indicators of rhetorical strategies rather than direct reflections of policy actions (Lutz, 2019). This understanding is crucial, as a party's positive or negative language towards migration doesn't always align with their policy actions. Sentiment analysis, therefore, is valuable for decoding political rhetoric but needs to be paired with qualitative analysis for a complete understand-

ing of a party's position on migration.

Interestingly, recent trends in extreme right-wing politics, exemplified by leaders like Giorgia Meloni, show a closer alignment between public rhetoric and actual beliefs (IIPost, 2023; Toth, 2020). Unlike the usual political divergence between public statements and actions, extreme right movements like Chega (CH) exhibit a more consistent ideological stance, as their public and private expressions tend to mirror each other closely (Biscaia and Salgado, 2022). This suggests that, in such movements, the sentiment expressed might indeed reflect true policy intentions. Consequently, negative sentiments in right-wing manifestos likely indicate genuine anti-immigration views, while positive sentiments in other political spectra need further analysis to ascertain their true intent towards migrant inclusion.

5.1 Qualitative Analysis

It is important to acknowledge that sentiment classification has its limits. For instance, the sentence «together we can bring all migrants back to Africa» also conveys positive sentiment, according to the BERT model used. Nonetheless, it is hard to claim that this sentence is intrinsically supporting migrants' integration policies. It is, thus, needed a qualitative analysis, to further explore more deeply the actual stance over migration. Nevertheless, the sentiment classifier is still informative and useful, when used with a grain of salt: if applied to a whole corpus, it can suggest a more general attitude toward a specific topic. Therefore, we chose to focus qualitatively on the most eloquent sentences extracted from the manifestos. In selecting the following sentences from the political manifestos, our focus is on identifying statements that are qualitatively both relevant and eloquent in capturing the essence of the main parties' stance on immigration.

From the PSD in 2011, a key policy proposal is expressed as:

2. "criar o programa qualificação +, com o objectivo de promover o acesso ao mercado de trabalho de jovens com elevadas qualificações que, nas actuais condições, são fortes candidatos à emigração"⁶.

⁶This translates to: "Create the Qualification + program, with the objective of promoting access to the job market for highly qualified young people who, under current conditions, are strong candidates for emigration."

The sentence's sentiment has 90,17% probability of being positive, 5,84% of probability of being negative and 3,97% of being neutral, according to our model. This initiative reflects the party's focus on preventing the emigration of Portugal's skilled youth, highlighting a strategy to retain local talent by enhancing their job market opportunities.

In 2015, the PCP highlighted the issue of immigrant exploitation and rights:

3. "o combate ao trabalho clandestino, às redes que exploram imigrantes e a legalização do seu trabalho, assegurando a igualdade de tratamento e o respeito pelos direitos laborais e sociais"⁷.

The sentence's sentiment has 55,35% probability of being positive, 39,56% of probability of being negative and 5,08% of being neutral, according to our model. This statement underlines the party's commitment to protecting immigrant workers from exploitation and advocating for their legal and equal integration into the workforce, emphasizing the importance of upholding labor and social rights for all workers.

Moving to 2019 election, we observe a more pronounced focus on immigration issues. The Left Block (BE) in 2019 articulated the challenges faced by immigrants:

4. "para os e as imigrantes que aqui chegam com a sua força de trabalho e a determinação de conquistar uma vida digna, estende-se o tempo exasperante de espera por um atendimento no sef, a permanência interminável em condição irregular e a inerente exposição à violação de todos os direitos fundamentais"⁸.

The sentence's sentiment has 26,69% probability of being positive, 67,71% of probability of being negative and 5,59% of being neutral, according to our model. This statement emphasizes the bureaucratic and legal challenges immigrants

⁷Translated as: "The fight against clandestine work, networks that exploit immigrants, and the legalization of their work, ensuring equal treatment and respect for labor and social rights."

⁸Translated as: "For the immigrants who arrive here with their labor force and determination to conquer a dignified life, they face an exasperating wait time for services at SEF, endless permanence in an irregular condition, and inherent exposure to the violation of all fundamental rights."

face, reflecting a perspective of empathy and concern for their rights and dignity.

Also in 2019, People-Animals-Nature (PAN) commented on the economic aspect of immigration:

5. "no mercado de trabalho, a contribuição dos imigrantes é essencial para o aumento da mão-de-obra, principalmente nos países com populações envelhecidas, como é o caso de Portugal"⁹.

The sentence's sentiment has 83,45% probability of being positive, 11,30% of probability of being negative and 5,24% of being neutral, according to our model. This statement acknowledges the vital economic contribution of immigrants to the labor market, highlighting their role in addressing demographic challenges in countries like Portugal.

It is interesting to contrast these statements with 2019 CH's manifestos. For example:

6. "mas integração não é, nem pode ser, diluição de todas as nações europeias, e de todos os seus cidadãos, numa solução aquosa e indistinta de europeus padronizados e todos iguais".¹⁰

The sentence's sentiment has 15,12% probability of being positive, 55,16% of probability of being negative and 29,71% of being neutral, according to our model. This statement appears to reflect a concern about the loss of distinct national identities and cultural characteristics in the process of integrating diverse populations, particularly in the context of migration in Europe. The use of metaphorical language like "aqueous and indistinct solution" suggests a fear of homogenization or a loss of uniqueness that nations and their citizens might experience in the face of integration. This statement, while focusing on preserving national identity amidst integration, subtly echoes aspects of the "Great Replacement Theory." This theory, often associated with far-right ideologies, claims a deliberate replacement of European populations with immigrants, leading to cultural

⁹This translates to: "In the labor market, the contribution of immigrants is essential for the increase in the workforce, especially in countries with aging populations, such as Portugal."

¹⁰The quote translates to: «but integration is not, nor can it be, the dilution of all European nations, and all their citizens, into an aqueous and indistinct solution of standardized and identical Europeans.»

dilution. The language used in CH's manifesto, particularly about maintaining cultural uniqueness, is reminiscent of this theory's narrative (Ekman, 2022). The concern expressed in the quote about losing national distinctiveness is common among certain political groups, who argue that preserving cultural and national identities is crucial. The fear of dilution of national identity may be rooted in concerns about rapid demographic changes, economic pressures, or social cohesion (Lithman, 2010). In fact, Portugal, similarly to other Western democracies, has been having for the last decades (precisely, from 1984) a fertility rate lower than two kids per woman, meaning a progressive decreasing and aging of the population¹¹. This trend, if summed with the loss of purchasing power after the 2008 crisis, and the progressive increasing of immigrants in the country, can provide a framework for understanding the progressive anti-migration rhetoric. CH's rhetoric often simplifies the complex nature of integration and migration, presenting it as a binary choice between the loss of national identity and the preservation of cultural homogeneity (Byshok, 2020). Another relevant sentence from Chega's manifesto is:

7. "são duas ideologias em confronto: aquela que propõe e que tenta implantar um mundo sem fronteiras habitado por uma massa indiferenciada de indivíduos sem raízes, sem família, sem comunidades próximas e sem nação, o consumidor ideal porque completamente desprovido de defesas".¹²

The sentence's sentiment has 42,00% probability of being positive, 46,31% of probability of being negative and 11,67% of being neutral, according to our model. This sentence speaks to a perceived conflict between globalism and nationalism, a core tension in contemporary debates on migration. The description of a "massa indiferenciada" points to a fear of a loss of individual and national identities, which is a poignant narrative in the political discourse surrounding migration. The phrase "consumidor ideal" (ideal consumer) in Chega's manifesto carries a significant ideological implication. It

¹¹According to *macrotrends.net*

¹²The text translates to English as: "There are two ideologies in conflict: one that proposes and tries to implement a world without borders inhabited by an undifferentiated mass of individuals without roots, without family, without close communities, and without nation, the ideal consumer because completely devoid of defenses".

suggests a critique of globalism, portraying it as a system that seeks to create a homogenized population, devoid of distinct cultural or national identities. This population, described as the "ideal consumer," is seen as easily influenced and lacking in defenses against globalist agendas. The term evokes a somewhat conspiratorial tone, implying a deliberate effort by proponents of globalism to erode individual and communal identities for easier manipulation and control. This rhetoric reflects a common theme in nationalist discourses, where globalization is often depicted as a threat to national sovereignty and cultural uniqueness.

6 Limitations and Future Research Directions

Our study's approach, leveraging NLP and sentiment analysis, could offer insightful perspectives on the sentiment towards migration in Portuguese political manifestos. However, it faces inherent limitations in capturing the full spectrum of nuances within political texts. The application of sentiment analysis, particularly through the BERT model trained primarily on social media content, might not fully align with the linguistic and rhetorical intricacies of political manifestos. Additionally, the uniform treatment of emigration and immigration in our analysis may not adequately reflect the complex and multifaceted nature of these issues. Future research should aim to bridge these gaps by investigating the interrelations between political rhetoric, policy actions, and public opinion on migration. Plus, distinguish between emigration and immigration perspectives could offer deeper insights into political parties' stances and strategies.

7 Conclusions

This study has systematically analyzed the sentiment towards migration expressed in Portuguese political manifestos across three electoral cycles. Our findings reveal a generally positive sentiment towards migration among the mainstream political parties. Notably, the emergence and rise of the CH party introduce a divergent narrative, marked by a distinctly negative sentiment towards migration. This development is particularly salient in the context of the upcoming elections, where the political discourse on migration and its implications for policy and social cohesion will be pivotal.

The ascent of CH is better understood inside the broader European trend of growing right-wing

populism, characterized by a sceptical stance on immigration. This shift poses critical questions for Portugal's political landscape and its future migration policies. The findings of this study suggest that while Portugal has historically embraced a pro-immigration stance, the political rhetoric around migration is becoming increasingly polarized, mirroring wider European trends.

This study contributes to the broader discourse on migration, offering insights into the evolving political landscape in Portugal and its implications for future elections. In conclusion, the rise of the CH party and its implications for Portugal's migration discourse and policies point to a critical juncture. The upcoming 2024 elections will not only shape the country's political landscape but also determine the trajectory of its migration policies in the face of global and European challenges. It is imperative for political parties, policymakers, and civil society to engage in informed and constructive dialogue on migration, ensuring that Portugal remains a society that values diversity and inclusivity, while addressing the legitimate concerns and challenges that migration presents.

Acknowledgements

We extend our deepest thanks to the HYBRIDS project, a Marie Skłodowska-Curie Doctoral Network funded by the European Union (EU) and UK Research and Innovation (UKRI). This project's support has been fundamental to our research. We are especially grateful to the Manifesto Project for providing the data that formed the basis of our analysis. Special acknowledgment goes to Davide Bassi for his expert guidance. We also express our gratitude to the research centers CIDEHUS, CiTIUS, and FBK for their resources and support, which have been instrumental in the success of our work.

References

- Samuel E Bestvater and Burt L Monroe. 2023. Sentiment is not stance: Target-aware opinion classification for political text analysis. *Political Analysis*, 31(2):235–256.
- Afonso Biscaia and Susana Salgado. 2022. [Placing portuguese right-wing populism into context](#). *Contemporary Politics, Communication, and the Impact on Democracy*.
- S. O. Byshok. 2020. [Migration and recent aspects of right-wing populist discourse in europe](#). *RUDN Journal of Political Science*.
- Christopher Cochrane, Ludovic Rheault, Jean-François Godbout, Tanya Whyte, Michael W-C Wong, and Sophie Borwein. 2022. The automatic analysis of emotion in political speech based on transcripts. *Political Communication*, 39(1):98–121.
- Jacob Devlin, Ming-Wei Chang, Kenton Lee, and Kristina Toutanova. 2019. [Bert: Pre-training of deep bidirectional transformers for language understanding](#). *ArXiv*, abs/1810.04805.
- Mattias Ekman. 2022. [The great replacement: Strategic mainstreaming of far-right conspiracy claims](#). *Convergence: The International Journal of Research into New Media Technologies*, 28:1127 – 1143.
- Jorge M. Fernandes. 2011. [The 2011 portuguese election: Looking for a way out](#). *West European Politics*, 34:1296 – 1303.
- Pietro Castelli Gattinara and Laura Morales. 2017. The politicization and securitization of migration in western europe: Public opinion, political parties and the immigration issue. *Handbook on migration and security*, pages 273–295.
- M. Giuliani. 2022. [Voting between two global crises. a nuts3-level analysis of retrospective voting in four south-european countries](#). *Italian Political Science Review/Rivista Italiana di Scienza Politica*.
- M. Glatzer. 2022. [Portugal’s social and labour market policy: The crisis, the troika and beyond](#). *Portuguese Studies*, 34:104 – 118.
- Pilar Gonzalez. 2014. [Gender issues of the recent crisis in portugal](#). *Revue De L’ofce*, 133:241–275.
- Martin Haselmayer and Marcelo Jenny. 2017. Sentiment analysis of political communication: Combining a dictionary approach with crowdcoding. *Quality & quantity*, 51:2623–2646.
- Swen Hutter, Hanspeter Kriesi, and Guillem Vidal. 2018. [Old versus new politics](#). *Party Politics*, 24:10 – 22.
- IIPost. 2023. [Scherzo telefonico a giorgia meloni](#). <https://www.ilpost.it/2023/11/01/scherzo-telefonico-meloni/>.
- Carlos Jalali, Patrícia Silva, and Sandra Silva. 2012. Givers and takers: Parties, state resources and civil society in portugal. *Party Politics*, 18(1):61–80.
- Maxim Kulaga. 2021. [Consequences of the radicalization of migration policy in western europe: Socio-economic aspect](#). *DEMIS. Demographic Research*.
- Aleksy Kwilinski, Oleksii Lyulyov, Tetyana Pimonenko, Henryk Dzwigol, Rafis Abazov, and Denys Pudryk. 2022. International migration drivers: Economic, environmental, social, and political effects. *Sustainability*, 14(11):6413.
- Marco Lisi and Enrico Borghetto. 2018. Populism, blame shifting and the crisis: discourse strategies in portuguese political parties. *South European Society and Politics*, 23(4):405–427.
- Y. Lithman. 2010. [The holistic ambition: Social cohesion and the culturalization of citizenship](#). *Ethnicities*, 10:488 – 502.
- Philip Lutz. 2019. [Reassessing the gap-hypothesis: Tough talk and weak action in migration policy?](#) *Party Politics*, 27:174 – 186.
- Mariana S. Mendes. 2021. [‘enough’ of what? an analysis of chega’s populist radical right agenda](#). *South European Society and Politics*, 26:329 – 353.
- Mariana S. Mendes and J. Dennison. 2020. [Explaining the emergence of the radical right in spain and portugal: salience, stigma and supply](#). *West European Politics*, 44:752 – 775.
- Salomon Orellana and Halil Bisgin. 2023. Using natural language processing to analyze political party manifestos from new zealand. *Information*, 14(3):152.
- Paulo T. Pereira and Laura Wemans. 2015. [Portugal and the global financial crisis: short-sighted politics, deteriorating public finances and the bailout imperative](#). *Research Papers in Economics*.
- Wareesa Sharif, N. Samsudin, M. M. Deris, and Rashid Naseem. 2016. [Effect of negation in sentiment analysis](#). *2016 Sixth International Conference on Innovative Computing Technology (INTECH)*, pages 718–723.
- Tamas Toth. 2020. Target the enemy: explicit and implicit populism in the rhetoric of the hungarian right. *Journal of Contemporary European Studies*, 28(3):366–386.
- Hu Xu, Lei Shu, Philip S. Yu, and Bing Liu. 2020. [Understanding pre-trained bert for aspect-based sentiment analysis](#). pages 244–250.

Appendix

Date	Party Name	Original Name	Abbrev.	% vote
2011.06	Ecologist Party 'The Greens'	Partido Ecologista 'Os Verdes'	PEV	1,029
2011.06	Left Bloc	Bloco de Esquerda	BE	5,17
2011.06	Portuguese Communist Party	Partido Comunista Português	PCP	7,201
2011.06	Socialist Party	Partido Socialista	PS	28,05
2011.06	Social Democratic Party	Partido Social Democrata	PSD	38,66
2011.06	Social Democratic Center-Popular Party	Centro Democrático e Social – Partido Popular	CDS-PP	11,71
2015.10	Portugal Ahead	Portugal à Frente	PàF	36,86
2015.10	Ecologist Party 'The Greens'	Partido Ecologista 'Os Verdes'	PEV	1,008
2015.10	People-Animals-Nature	Pessoas-Animais-Natureza	PAN	1,39
2015.10	Left Bloc	Bloco de Esquerda	BE	10,19
2015.10	Portuguese Communist Party	Partido Comunista Português	PCP	7,558
2015.10	Socialist Party	Partido Socialista	PS	32,31
2019.10	Ecologist Party 'The Greens'	Partido Ecologista 'Os Verdes'	PEV	1,057
2019.10	People-Animals-Nature	Pessoas-Animais-Natureza	PAN	3,493
2019.10	Free	Livre	L	1,144
2019.10	Left Bloc	Bloco de Esquerda	BE	10,01
2019.10	Portuguese Communist Party	Partido Comunista Português	PCP	5,283
2019.10	Socialist Party	Partido Socialista	PS	38,2
2019.10	Social Democratic Party	Partido Social Democrata	PSD	29,18
2019.10	Liberal Initiative	Iniciativa Liberal	IL	1,355
2019.10	Social Democratic Center-Popular Party	Centro Democrático e Social – Partido Popular	CDS-PP	4,439
2019.10	Enough	Chega	CH	1,358

Figure 7: Table of the parties along with their abbreviation, percentage of votes archived and original names.

List of words			
acolhimento	acolher	acolhida	acolhedor
arabização	arabizar	arabizado	
asilo	asilar	asilado	asilagem
assimilação	assimilar	assimilado	assimilável
colonização	colonizar	colonizador	colonizado
colon	colônia	colonial	colonizar
deportação	deportar	deportado	
diáspora	diaspórico	diaspórica	
emigração	emigrar	emigrante	emigrado
emigrante	emigrar	emigrou	emigração
exilado	exilar	exílio	exilados
expatriado	expatriar	expatriação	expatriamento
extradição	extraditar	extraditado	
fronteira	fronteiriço	fronteiras	fronteira
imigração	imigrar	imigrante	imigrado
imigrantes	imigrar	imigração	imigratório
integração	integrar	integrado	integrante
judeu	judaísmo	judaico	judaizar
migrante	migrar	migração	migratório
multiculturalidade	multicultural	multiculturalismo	multiculturais
ocupação	ocupar	ocupado	ocupacional
refugiado	refugiar	refúgio	refugiados

Figure 8: Table of the total words used to extract the migration terms.

In this study, the following python libraries were utilized for data processing, analysis, and visualization: **re**, **pandas**, **matplotlib**, **seaborn**, **os**, **numpy**, **transformers**, **spacy**, **torch**, **json**, **gensim.models**, **collections**.