How does populism increase voter turnout: The case of France

By
Jiaqing Wang

Submitted to
Central European University
Department of Political Science

In partial fulfilment of the requirements for the degree of Master of Arts

Thesis Supervisor
Professor Mariyana Angelova

Vienna, Austria
2024

Author's declaration

I, the undersigned, **Jiaqing Wang**, candidate for the MA degree in Political Science declare herewith that the present thesis is exclusively my own work, based on my research and only such external information as properly credited in notes and bibliography. I declare that no unidentified and illegitimate use was made of the work of others, and no part of the thesis infringes on any person's or institution's copyright. I also declare that no part of the thesis has been submitted in this form to any other institution of higher education for an academic degree.

Vienna, 31 05 2024

_____

Signature

Abstract

This study explores the relationship between mood and voter turnout. This study aims to explore the relationship between emotion and voter turnout across different types of political parties and attempt to explain the rapid growth of voter turnout for populist parties. The study optimizes and extends the previous voting model and collects data through a combination of online and offline surveys. On the basis of model and data, this paper uses logit model to analyze the data. The results show that the increase in voter turnout for populist parties is driven by emotion and issues. Voters of populist parties are more emotionally driven than voters of democratic parties, but less issue-driven than voters of democratic parties. In addition, this paper also explores the influence of different emotions on voter turnout. The results showed that positive emotions were more likely to mobilize voters to vote than negative emotions. Among negative emotions, fear is more likely to drive voters to the polls than anger. Finally, the model is tested and proved to be able to predict voter turnout.

Keyword: populism, emotion differential, issue differential, voting model

CONTENTS

1. Introduction

Populism has become a hot topic in political science in recent years. The research on populism is also increasing. Studies on populism and voting behavior is one of the important branches. For example, Immerzeel and Pickup (2015) argues that the growth of populist parties can boost the whole voter turnout. The success of populist parties arouses the political interest of voters who are not interested in the propositions of the original mainstream democratic parties, promotes the willingness of voters to vote, and thus promotes the degree of electoral competition.

However, while previous research has demonstrated that populist parties can increase overall voter turnout, this does not seem to be enough to explain democratic backsliding in Europe. Populist parties across Europe are growing at a breakneck pace. In Italy, populist parties have even defeated left-wing democratic parties in elections and taken power. In the absence of a mass exodus of supporters from democratic parties, this means that voter turnout for populist parties is growing faster than for democratic parties. However, the increase in voter turnout due to increased electoral competition and increased political interest among voters does not provide an adequate explanation for this phenomenon, as the effects of democratic and populist parties on the increase in voter turnout are similar.

The purpose of this research is to clarify this confusion. In other words, this research aims to provide an answer to the question “why populist parties have higher voter turnout compared to democratic parties”. In order to solve this problem, this study adopts Wang's voting model and expands it to build a more complete voting model. At the same time, this study applies the model to practice and chooses France as the case. On the one hand, France currently has two

main parties, the populist party RN and the democratic party LREM. On the other hand. Voter turnout in RN is gradually increasing, while voter turnout in LREM is gradually decreasing. These two points enable this study to better detect results, while also ensuring external and internal validity. On this basis, this study will use the Logit model as the explanatory model of the voting model to analyze the data.

At the same time, this study adopted a combination of online and offline data collection. On the one hand, offline data collection can effectively improve the data speed and ensure the quality of data collection. At the same time, offline data collection can also reduce the imbalance of environmental variables between the control group and the treatment group, thus ensuring the accuracy of experimental results. On the other hand, online survey can improve the randomness of sample selection and avoid selectivity bias.

In addition to studying the relationship between emotions and voter turnout in different political parties, this study also focuses on the impact of different types of emotions on voter turnout. The finding shows that negative emotions drive voter turnout less than positive emotions. At the same time, fear drives voter turnout more than anger does. Otherwise, the established model is set as a prediction model and tested. According to its results, the model was able to effectively predict voter turnout with an accuracy of up to 80 percent.

Finally, the structure of this paper is as follows. In the second section, this paper will conduct a literature review on the development of electoral models and populism respectively. The third section proposes hypotheses based on Wang's election model theory (2013) and the relationship between emotion and behavior. In Section 4, the model to be used in this study will be established, and the cases, variables, and data collection process will be clarified. Sections 5

and 6 will focus on the analysis of data and results. In section 7, the prediction ability of the model is tested. Finally, this paper will make a brief summary and clarify the unsolved limitations in this study.

2. Literature review

2.1. The development of voting model

In previous research, scholars explained voting behavior according to the assumption of rational person and rational choice theory. The rational person is always rational and self-interested and is guided by rationality to pursue maximum interests (McCarty & Meirowitz, 2007). While rational choice theory assumes that an individual's preference for a particular behavior is the result of a calculation of expected utility (Aldrich, 1993). Specifically, individuals prefer higher utility outcomes over lower utility outcomes and choose actions to obtain more valuable outcomes.

According to the two assumptions, Downs (1957) provides a rational voting model in his paper. His model shows that voters will calculate their costs and benefits of voting. If the benefit is greater than the cost (the voting utility is greater than 0), then they will participate to vote in the election. The model can be expressed as: R = (PB) – C, where R is the predicted voting utility. PB is the benefits of voting. P represents the probability that an individual vote will affect the outcome, and B represents the difference between the expected utility and the policies of the two candidates. Finally, C is the cost of voting. Therefore, voters prefer to vote if R is greater than 0. However, the possibility P is very small, PS is close to 0. Although the voting cost is very small, the model shows most rational voters are not willing to vote.

The results of Downsian model means that induvial voter turnout is almost zero. However, this model cannot explain actual voting turnout well. Thus, Downs limited the voting environment and argues that rational voters will vote to support democracy because they realize

that the democracy will be broken if they all give up voting (Downs, 1957). Then the model is changed into: R = (PB) – C + D, where D is the civil duties. On this basis, many scholars have also tried to make more accurate interpretations of the model. For example, some scholars argues that civil duties represent the value of fulfilling civic duty (Riker & Ordeshook, 1968), which includes the social responsibility, expressing allegiance to the preferred party and candidate (Fiorina, 1976), and so forth.

With the development of psychology and behavioral economics, scholars finds that rational choice theory cannot explain voting behavior completely (Marcus & MacKuen, 1993; MacKuen, Wolak, Keele & Marcus, 2010). Emotion is also an important factor to explain voter turnout. By definition, emotion is the mental and physical responses to identifiable stimuli that are significant to individual or group goals (Miller, 2011). High levels of emotion, such as anger and enthusiasm, can increase behavioral motivation and thus mitigate the effects of collective action problems and other causes that may inhibit behavior on individuals (Groenendyk, 2019).

At the same time, both positive emotions (enthusiasm, pride, etc.) and negative emotions (anxiety, anger, etc.) affect an individual's behavior. But negative emotions have a stronger effect on behavior than positive emotions. Previous research has also shown that anger is more likely to motivate voters to campaign than enthusiasm (Marcus, 1988). At the same time, compared with negative emotions such as anger, fear and worry are more likely to motivate voters to participate in the election, thus increasing the overall voter turnout. Phoenix (2019) argues that there is evidence that fear predicts a higher likelihood of voter participation, especially among Asian Americans. In contrast, positive emotions such as enthusiasm had little effect on actual turnout (Phillips & Plutzer, 2023).

However, when we try to incorporate emotions into the election model, we find that these results are prone to error. In a previous analysis of the relationship between emotion and voting behavior. But in an actual election, voters have different emotions about different candidates and parties. For example, in the 2020 US election, a voter may not have negative feelings about Trump, but at the same time there are no positive feelings. According to previous analysis of the relationship between emotion and voting behavior, voters will refrain from participating in the vote. However, if voters have a high level of positive emotion toward Biden, then it may still choose to vote. In other words, whether a voter participates in a vote depends not on his feelings about one candidate or party, but on the difference in his feelings about each candidate or party.

On this basis, Wang (2013) introduces the concept of "emotion differential", that is, "the difference of voters' favorable emotions towards competing candidates". "Favorable feelings toward a candidate" are defined as an individual's emotional state in favor of the candidate. This concept is constructed by combining both positive and negative feelings about the candidate. On this basis, Wang used the EITM framework to improve the election model in the two-party system. He added emotional factors to the original election model, resulting in a new model: Logit (Turnout) = PD + ED, where PD is the party differential, which is the differences or distinctions between different political parties (Downs, 1957). While ED is the emotion differential we said above.

2.2. Populism and its strategies

With the rapid development of populism in democratic countries, the research on populism

has also increased, especially the literature on populism and voters' emotions, and populism and voter turnout.

Previous research has shown that populists tend to be more emotional than others. And an important difference between populist and non-populist actors is the extensive use of emotional appeals (Engesser, Fawzi & Larsson, 2017). Meanwhile, populist emotion tends to be dominated by negativity. Many support populist parties, often out of frustration or anger with realpolitik. Populist parties will exploit these people's emotions, making them blame the ruling parties and political elites for their discontent with society. In this way, populist parties have attracted large numbers of populist supporters. For example, Rico et al. (2017) shows that in Spain, anger over the economic crisis can lead individuals to support populism. Vasilopoulos and Foucault (2018) found in France that individuals' anger would enhance their preference for authoritarian policies. Along with anger, anxiety and fear are among the tools populist parties use to appeal to voters. Scheller (2019) showed in his research that the fear appeal of populist extremist parties can successfully attract new voters.

In addition to anger and fear, other negative emotions can be exploited by populist parties to win over new voters. Populist parties, for example, appeal to personal sadness and disappointment with realpolitik to win over new voters (Scheller, 2019). Generally speaking, populist parties often take advantage of people's negative emotions towards realpolitik to attract new voters and populists, thus achieving the development of populist parties (Widmann, 2021).

This thesis will build on the literature of these two parts, especially the findings of Wang (2013) and Widmann (2021). However, different from these two mainstream literature branches, this thesis attempts to explore the reasons for the increase in voter turnout of populist parties.

First, I will focus on voter turnout for populist parties, compare it to voter turnout for democratic parties, and explore the reasons for the difference. At the same time, I will analyze the causal machinery of how populist parties influence voter turnout, thereby enriching the literature on populist voting behavior. Finally, my research builds on the model of Wang (2013) and improves it to make the results more convincing.

3. Theory and hypothesis

3.1. Main hypotheses

How can populist parties increase voter turnout among their populist supporters compared to democratic parties? On this question, I propose two hypotheses. On the one hand, from an emotional view, populists are often described as highly emotional. They try to promote the separation and opposition between the mass voters and the elite groups, and as the spokesman of the mass voters to win the support of the voters. In order to achieve this, populists will try to arouse the negative emotions of voters (Widmann, 2021). Voters tend to have a lot of political and social dissatisfaction. And populist parties often play on emotions to make these voters blame elites and other groups for their discontent (Hameleers, Bos & De Vreese, 2017). Populist parties, however, often cast themselves as political outsiders and criticize and blame elites and political institutions for alleged corruption (Ernst, Engesser & Esser, 2017). In this way, populists often arouse negative feelings among voters and attract support by standing in opposition to corrupt groups. While democratic parties focus more on arousing the positive emotions of voters and do not use too much negative emotions to influence voters' voting decisions.

As a result, supporters of populist parties tend to have high levels of negative emotion toward incumbent parties and political elites. At the same time, these voters have a high level of positive emotion toward populist parties, which they see as bellwethers of support for the common class against "corrupt elites." In other words, populist voters have a high emotion differential for parties and candidates. According to Wang's model (Wang, 2013), the higher the

emotion differential, the more likely voters are to participate in voting. Therefore, I can make the first hypothesis:

H1: Populist parties have higher voter turnout than democratic parties because their supporters have a high level of emotional differential about parties and candidates.

On the other hand, from a rational view, before the success of populism, there is a large group of voters in society who voluntarily abstain from participating in elections and voting. Their views on key issues, such as immigration and European integration, differ from those of mainstream parties. Since the party with similar views is the underdog in the election and has little or no chance of winning the election, they choose to voluntarily abstain from voting (Smets & Van Ham, 2013). However, with the development of populism, the structure of political opportunities has undergone new changes, that is, it has caused the polarization of issues and parties. Although populist parties are new, they are now able to compete with mainstream democratic parties. Opposing views and propositions that can compete with each other motivate voters who are contrary to the views of democratic parties to participate in elections and take the initiative to vote in elections (Van Leeuwen, 2009). And because democratic parties have long been strong in elections, their supporters often lack the resolve to vote for the views they support. Therefore, I will propose the second hypothesis:

H2: Populist parties have higher voter turnout than democratic parties because populist parties can attract more voters who are dissatisfied with core issues than democratic parties.

At the same time, the electorate in H2 is different from the electorate in H1. The electorate in H1 is more dominated by emotion. They support populist parties and participate actively in voting mainly because of their negative feelings towards the current ruling party and the

political elite and their decisions. As for the group of voters in H2, they are not affected too much by negative emotion. They support populist parties because populist parties can express their views.

3.2. Additional hypotheses

In this section, I will explore more deeply the effects of different emotions on voter turnout for populist parties, building on H1.

Previous research has shown that negative emotions influence voters' political behavior more than positive emotions. (Marcus, 1988) First, people are often affected by negative drive effects. In other words, when people are experiencing negative emotions, they are more likely to take action to change the situation in order to eliminate those negative emotions. People are less motivated by positive emotions because they are already in a satisfactory state. At the same time, the loss aversion theory in behavioral economics shows that people are more sensitive to loss than to gain. In other words, voters may be more inclined to vote because of certain negative emotions, such as dissatisfaction with policies or dislike of a particular candidate, in order to avoid these negative outcomes.

Third, psychologically speaking, negative emotions are more psychologically activating and adaptive. People also tend to be more inclined to react more quickly to negative stimuli in order to deal with potential dangers. Negative emotions tend to cause people's attention bias, so that people pay more attention to negative information and negative situations. This attention bias also makes people more sensitive to the effects of negative emotions. Finally, negative emotions can increase people's psychological stress and make them feel a stronger sense of

responsibility and urgency. This sense of responsibility and sense of urgency makes voters more motivated to get to the polls in response to what they perceive as an imminent threat or problem. Therefore, negative emotions are more likely to mobilize voters to vote than positive emotions:

H3: Negative emotions increase voter turnout for populist parties more than positive emotions.

At the same time, anxiety and fear were more likely to influence voter turnout than other negative emotions. There are two main reasons for this. On the one hand, anxiety and fear can prompt individuals to engage in more searching and a more deliberate decision-making process. People with anxiety and fear often feel uncertain and worried, so they become more proactive in seeking out information to reduce this uncertainty. When voters are anxious, they are more likely to be informed about a candidate's policies and background and thus more motivated to vote in the expectation that their concerns will be addressed or alleviated by voting. Anxiety and fear, on the other hand, are highly aroused emotional states, often accompanied by a strong sense of urgency and a desire to control. Anxious voters often feel a strong need to take action to change or control the developments they fear. As a result, anxious and fearful voters are more likely to turn out:

H4: Fear and anxiety increase voter turnout for populist parties more than other negative emotions.

4. Research design

4.1. Model building

The model used in this study is based on the voting election model proposed by Wang (2013), which is

$$Pr(y_i = 1|\widehat{Pd}_\iota \widehat{Ed}_\iota) = F(\beta_0 + \beta_1 \widehat{Pd} + \beta_2 \widehat{Ed}) = \frac{1}{1 + \left[\frac{1}{e^{(\beta_0 + \beta_1 \widehat{Pd} + \beta_2 \widehat{Ed})}}\right]},$$

where $\widehat{Pd}_\text{i}$ is voter i's party differential, which is the difference in the distance between the voter i's position and that of the party he or she supports and that of the opposition party., $\widehat{Ed}_\text{i}$ means voter i's emotion differential, which is the difference between the emotion and attitude to the party the voter i supports and those to the opposition party, while y_i is if voter i's will vote in the election.

However, there is an important problem with Wang's model. The model focuses on the party differential and emotion differential of voters but does not further disassemble the two concepts. In focusing on the party differential, Wang only focuses on the general concept of voters' stance on political parties, without breaking it down. In the emotion differential part, Wang also faces the same problem. When faced with such broad questions, voters may not be able to form a clear sense of their own views and express them.

In addition, if I want to use Wang's voting model as the basic model of this study, I need to modify the model. Wang's model applies only to the overall voter turnout in a given country, and does not provide a clear analysis of voter turnout for different political parties within a country. For example, electoral competition is a very important factor in measuring the overall voter turnout in a country, but it does not affect the voter turnout of different political parties in

the same country.

Therefore, based on Wang's model, I refine and decompose the concepts of emotion differential. At the same time, I also modified other variables of the model according to the research purpose, so that it can better analyze the voter turnout of various political parties. Finally, the following models will be used in this study:

$$Pr(y_i = 1|\hat{Pd}_i \hat{Edp}_i \hat{Edi}_i \hat{Id}_i) = F(\beta_0 + \beta_1 \hat{Pd} + \beta_2 \hat{Edp} + \beta_3 \hat{Edc} + \beta_4 \hat{Edi} + \beta_4 \hat{Id})$$
$$= \frac{1}{1 + [\frac{1}{e^{(\beta_0 + \beta_1 \hat{Pd} + \beta_2 \hat{Edp} + \beta_3 \hat{Edc} + \beta_4 \hat{Edi} + \beta_4 \hat{Id})}}]}$$

In this model, y_i is whether voter i will vote in the election, $\widehat{Pd}_i$ is voter i's party differential. $\hat{Edp}_i$ is voter i's emotion differential with parties, which means the difference in positive (or negative) emotion between the party the voter supports and the party he or she opposes. $\hat{Edc}$ is voter i's emotion differential with candidates, which means the difference in positive (or negative) emotion with candidates between the party the voter supports and the party he or she opposes. $\hat{Edi}_i$ is voter i's emotion differential with issues, which means the difference in positive (or negative) emotion between the proposition of the party the voter supports about key issues and the proposition of the party he or she opposes. While $\hat{Id}_i$ is voter i's issue differential, which is the difference in the distance between voter i's positions on key issues and those of his or her preferred and rival parties. In this model, I focus on only a few key issues and ignore others that are less mentioned. This approach focuses on the core differences between political parties.

Finally, a detailed explanation of the design of the control variables and the variables is provided in Sections 4.3 and 4.4.

4.2. Case selection

In the French political landscape, two major parties stand out: the democratic party La République En Marche! (LREM) and the populist party Rassemblement National (RN).

La République En Marche! (LREM) burst onto the scene in 2016, founded by Emmanuel Macron with the aim of bringing a fresh, centrist approach to French politics. Macron's victory in the 2017 presidential election marked a significant shift in the country's political landscape. LREM, presenting itself as a progressive and reformist party, quickly gained momentum and secured a majority in the French National Assembly during the legislative elections that followed. However, its popularity has seen fluctuations since then, facing challenges from various political opponents and social movements.

On the other side of the spectrum, Rassemblement National (RN), formerly known as the National Front, has long been a prominent force in French politics. Founded by Jean-Marie Le Pen in 1972 and currently led by Marine Le Pen, RN espouses right-wing populist and nationalist ideologies. The party's platform includes anti-immigration, Eurosceptic, and anti-globalization policies, appealing to those who prioritize national sovereignty and traditional conservative values. RN has maintained a significant presence in French politics, particularly in regional and European elections, attracting support from segments of the electorate dissatisfied with mainstream political parties and concerned about issues such as immigration and globalization.

I chose France as the case for this paper for three main reasons. First, because the emotion differential and the party differential are most applicable to comparisons between two political parties, the electoral model used in this paper is best to choose countries where there are two

mainstream parties. The party composition in the French elections is one mainstream Democratic Party, one mainstream populist party and many small parties. This composition can make the results of the election model more accurate.

Second, the two parties, LREM and RN, make a good comparison. On the one hand, the two political parties are in competition in every respect. LREM emphasizes openness, inclusiveness and modernity. On economic policy, it supports the market economy, advocating lower corporate tax rates, less government intervention, and promoting innovation. In social policy, it advocates equality, multiculturalism and social inclusion, and supports same-sex marriage and gender equality. In addition, LREM actively promotes close cooperation between France and the European Union, supporting the stability and economic integration of the euro area. The RN, on the other hand, puts more emphasis on French national interests and independence, advocating nationalist and conservative values. On immigration and security issues, RN takes a hard line, advocating border control and limiting the number of immigrants. In economic policy, it supports protectionism and state intervention, and advocates the protection and development of domestic industries. At the same time, the RN opposed European integration and advocated regaining the sovereignty and independence of France. On the other hand, the two parties are each other's biggest opponents in the French presidential election. This makes it impossible for the two parties to have the same number of supporters, thereby preventing this factor from affecting the accuracy of the model.

Finally, voter turnout between the two parties is consistent with the situation described in this paper, that is, voter turnout for populists is on the rise compared to democratic parties. Compared to the 2017 French presidential election, the overall voter turnout for the 2022 French

presidential election has changed little. At the same time, compared to the 2017 French presidential election, although voters' support for RN has increased, the vote of RN's candidate Le Pan in the 2022 French presidential election is 7.6% higher than that in 2017. This indicates a growing voter turnout for the populist RN party.

4.3. Independent and dependent variables

The independent variables in this study are mainly divided into three parts: position differential, emotion differential and control variable.

Position differential includes party position differential (Pd) and issue position differential (Id). Party position differential refers to the difference between a respondent's political position and the position of the party he supports and the position of the opposition party. The calculation formula is:

$$Pd_i = \big||P_i - P_s| - |P_i - P_o|\big|,$$

where Pd_i is voter i's party differential, P_i is voter i's ideological position, P_s is the ideological position of the party that voter i supports, while P_o is the ideological position of the opposite party. This formula can well represent the rational dimension of voters when they vote for two political parties. In this study, I focus on two political parties, namely LREM and RN. At the same time, since it is not possible to directly define the positions of the two parties, in collecting the data, I will collect voters' assessments of their own positions and the positions of LREM and RN. The answers to these questions are on an 11-point scale. I then take the average of the assessments of the respondent teams' LREM and RN positions as the LREM and RN positions and calculate the final party differential.

On the other hand, as mentioned above, it is difficult for the party position differential to fully reflect the voting choices of voters in the rational dimension. A portion of the electorate may vote because of what the party stands for on key issues rather than what the party stands for. Therefore, issue position differential is also an important indicator to measure voter turnout. The formula for calculating the Issue position differential is similar to that for the party position differential:

$$Id_i = | \mathrm{I_s} - \mathrm{I_p} |,$$

where Id_i is voter i's issue position differential, I_s is the ideological position on key issues of the party that voter i supports, and $\mathrm{I_p}$ is the ideological position on key issues of the opposite party. In this study, there are two key issues: European integration and refugee problem. On the one hand, LREM and RN have diametrically opposed views on these two issues. LREM advocates greater European integration and acceptance of immigrants. The RN opposes immigration and European integration. On the other hand, the immigration issue and the European integration issue are also the two issues that the French people are most concerned about and the biggest debate. Therefore, there is good reason to think that these two issues are an important part of voters' expected voting utility. In order to collect the data of this variable, I used the same way as collecting the differential data of the party, that is, I collected voters' stance on two key issues and voters' views on LREM and RN's stance on key issues respectively. I will then take the average of the latter as LREM's and RN's positions on key issues. The section consists of six questions on an 11-point scale, ranging from -5 (totally disagree) to 5(total agree).

Emotion differential is the difference between the positive (or negative) emotions of the

voters towards RN and LREM. This variable indicates the emotional dimension of voter turnout. At the same time, this variable only takes into account the difference in respondents' feelings towards the same two political parties. In other words, the emotion differential compares a particular emotion (such as happiness, disappointment, anger, etc.) that voters have for the party they support and the party they do not support, rather than the difference between the positive emotion for the party they support and the negative emotion for the opposing party. This approach avoids errors in the final results caused by different levels of feedback from negative and positive emotions.

Moreover, voters' emotion differential between the two parties tends to be more than one. This may include candidates, political parties, political issues, and so on. And when voters are asked directly what they think of political parties, they tend not to tell the whole story. But at election time, voters tend to think carefully and act on their own. This means that voters' answers to surveys can be skewed from their actual behavior. Therefore, this study will investigate voters' emotion differential towards political parties, candidates, and political parties' key issue propositions. At the same time, because this study needs to investigate the impact of different emotions on voter turnout, this study will also investigate the impact of two positive emotions (happy, proud) and two negative emotions (angry, fear) on voter turnout.

Therefore, I will measure the emotion differential using the question "How do you feel (specific emotion) about (party, candidate, party's key issue propositions)?" Then, I will investigate the weight of the voters on the three parts of the party, namely the electors, the parties, and the key issue propositions, and calculate the combined emotion differential of the voters based on their weight. The answers to these questions are on an 11-point scale, ranging

from 0 to 10. Higher values indicate stronger emotions.

The third partis for control variables, including age, gender, race, partisanship, education, income, and political interests and so on. Previous studies have shown that voters with a strong interest in politics are more likely to vote (Verba, Schlozman & Brady, 1995). The measure of voters' political interest consisted of five questions about French domestic politics. These questions are about the results of previous French elections and the composition of the government. respondents were also asked "Are you interested in political campaign news?" to assess their political interest. This is a five-point question.

In terms of demographic variables, previous research has shown that citizens with higher levels of education are associated with higher voter turnout. Therefore, I used a categorical variable to measure the education level of the respondents. When the variable is 1, it means that the respondent has only one high school experience or no high school education, 2 means that the respondent has a high school diploma, 3 means that the respondent has a bachelor's degree, and 4 means that the respondent has obtained a master's degree or above.

Finally, the dependent variable used in this study is whether voters will participate in voting at election time. This is a binary variable, which is 1 if the voter will participate in voting in the next election and 0 if not.

4.4. Data collection process

This paper intends to use the survey experiment method to collect data. The order of data collected in this experiment, that is, the order of questions in the questionnaire, is the voting decision of control variables -- position differential -- emotion differential. I placed the voting

decision at the end of the questionnaire to ensure that voters fully considered the answers to the first three parts when thinking about the question. Placing the position differential before the emotion differential will prevent the profiles of the two parties provided in the emotion differential from interfering with the voters' position.

Meanwhile, the experiment divided all samples into five groups based on the difference of emotion differential in the questionnaire. The first group is the base group, and there are no questions about emotion differential in this group. In groups two to five, respondents were first asked to read two paragraphs about RN and LREM, their election candidates and their advocacy on key issues. The clips are objective and neutral, without any bias. Students in four groups were then asked to respond to their feelings about the two political parties, their candidates, and their positions on key issues. But respondents in each of the four groups were asked how happy, proud, angry, and fearful they felt about the subject.

Finally, this experiment adopts two data collection methods, online and offline. On the one hand, I collect data through Qualtrics. This approach allows a wider audience to be reached across France, while also reducing costs. On the other hand, I will also look for students living in France to distribute questionnaires offline. Although this approach may lead to data selection bias due to geographical limitations, it ensures the quality of the data and the seriousness with which respondents complete the questionnaire. In order to solve the geographical limitation problem, I used two methods to collect data at the same time and ensured that the data size collected by the two methods was maintained at the same level. This approach can ensure the quality of the data while minimizing the problem of selectivity bias.

5. Descriptive statistics

The data collection process was finished with a total of 603 completed responses. Of all the samples, the ones with the “Prefer not to answer” answer were excluded first. Then, I selected the sample whose party affiliation was LREM and RN, because this experiment only targeted supporters of LREM and RN. Finally, after filtering the size of the sample reached 417 valid observations.

From the total sample, 50.3% of respondents were supporters of LREM, while 49.6 were supporters of RN. In the emotion survey, which was the control variable of the second and third experiments, the respondents who conducted the negative emotion survey were the largest, accounting for 40% of the total sample. In contrast, 37.8% of respondents surveyed for positive emotions. The group with the smallest number of respondents was the baseline group, which only accounted for 22% of the total sample size. The small number of respondents in the baseline group is mainly due to the fact that the number of questionnaires for each group is divided according to the type of emotion during the survey, and positive emotion and negative emotion contain two types of emotion.

In the positive emotion, the sample about “happy” emotion accounted for 18.9% of the total sample. The sample number of “proud” emotions was the same as the sample number of "happy" emotions. Among negative emotions, the sample size of “fear” was slightly higher than that of “angry”. The former accounted for 20.3% of the total sample, while the latter was only 19.6%. Overall, the sample sizes of control groups and treatment groups in the three experiments were basically the same. The baseline group had a smaller sample size than the “negative emotion” and “positive emotion” groups, but the baseline group in this experiment

was used as the baseline rather than the control group. Therefore, the problem that the sample of the base line group is too small will not affect the experimental results too much.

In terms of age, the 25-34 age group had the largest sample size, accounting for 27.8% of the total sample. This was followed by the 18-24 age group, which made up 25.6% of the total sample. The number of respondents in the 35-44 age group accounted for 24.9% of the total sample. The smallest number of respondents was in the age group over 54, at just 0.9%. In addition, the number of men accounted for 52.7% of the total sample, and the number of women accounted for 47.2% of the total sample. Overall, the number of different age groups and genders in the sample is reasonable. This is related to the combination of online and offline surveys in this experiment. To some extent, offline investigation can control and ensure the balance of sample size in environmental variables.

For the income of the respondents, there is a centralized trend in the sample. In terms of annual household income, the majority of respondents have an annual household income between 50,000 and 74,999 Euro. Its sample size accounted for 42.9% of the total sample size. This was followed by respondents with an annual household income of less than 50,000 Euro, which accounted for 33.2% of the total sample size. However, fewer respondents were above 74.999 Euro, only 16.6% of the total sample size. In terms of annual personal income, the majority of respondents have an annual income of less than 54,999 Euro. Respondents with annual incomes between €12,000 and €29,999 were the largest, accounting for 47.2% of the total sample. Respondents with annual income in the range of 30,000 to 54,999 Euro accounted for 21.1% of the total sample. Respondents earning less than €12,000 a year accounted for only 19.4% of the total sample. Overall, the distribution of income in the sample is similar to the

distribution of national income in France as a whole.

In terms of educational level, 69% indicated they had completed college and earned a bachelor's degree, a group that made up the bulk of the sample. 13.1 percent of respondents had only a high school diploma, while only 1.6 percent had not completed high school. Those with a master's degree or higher accounted for 16 percent of the total sample. Meanwhile, respondents' political interests were more evenly distributed. 35.2% of respondents were able to answer two out of five questions about French electoral politics correctly. 20.1% of respondents were able to answer three questions correctly, and 18.7% were able to answer four questions correctly. Those who answered all the questions correctly accounted for 20.8% of the total sample.

Finally, the ethnicity and region of the respondents. Across the sample, 34.7 percent of respondents lived in an Ile-de-Franc region. Ile-de-France is the most populous region in France and home to the capital, Paris. At the same time, due to the active regulation during offline questionnaire collection, the proportion of respondents in other regions except Ile-de-France was similar to the proportion of population in all regions of France. Meanwhile, 82.7 percent of the respondents were white. 15.1 percent of the respondents were black. There are also about 2 percent of Asians and Middle Easterners. Appendix I shows the summary statistics of these control variables.

5.1. Group balance check for Experiment 1

In this experiment, due to the different types of emotions investigated, the group balance test in this experiment will be divided into two parts according to emotion categories, namely,

the positive group (the degree of proud and happy emotional questions answered by the respondents) and the negative group (the degree of fear and angry emotional questions answered by the respondents).

Table 1 shows the number of samples contained in different control variables in the positive group. Overall, the sample sizes of the control variables were roughly similar between the two parties. This is related to the combination of online and offline data collection methods chosen in this experiment. To a certain extent, offline data collection avoids the uncontrollable control variables that are prone to occur in online data collection. At the same time, the sample of offline data can regulate the selection bias of online data. Although the sample size of some variables in Table 1 still has a large gap between the two political parties, such as the 45-54 year-old group, the female group, etc., after the test of T test, we have sufficient reasons to reject the null hypothesis, that is, true difference in means is equal to 0. Table 2 shows the number of samples in the negative group. It also accepted and passed the test of t test. The results of the T test are given in Appendix II.

Table 1 Summary Statistics of Control Variables for Experiment 1 (Positive Emotions)

variable	LREM	RN
18-24	18	20
25-34	23	22
35-44	24	22
45-54	18	11
Male	44	44
Female	39	31
Less than 25,000 Euro	13	14
25,000-49,999 Euro	14	15
50,000-74,999 Euro	32	34
75,000-99,999 Euro	15	9
100,000-149,999 Euro	8	2
150,000 Euro or more	1	1
Less than 12,000 Euro	21	14
12,000-29,999 Euro	32	34
30,000-54,999 Euro	22	21
55,000-79,999 Euro	6	5
80,000-129,999 Euro	1	1
130,000 Euro or more	1	0
High school diploma	18	6
Bachelor degree	49	50
Graduate or professional degree	16	16
Some high school or less	0	3
Auvergne-Rhône-Alpes	5	10
Bourgogne-Franche-Comté	1	2
Bretagne	7	5

Centre-Val de Loire	6	4
Corse	3	0
Grand Est	7	8
Hauts-de-France	5	1
Normandie	3	1
Nouvelle-Aquitaine	2	4
Occitanie	6	3
Pays de la Loire	8	3
Provence-Alpes-Côte d'Azur	7	4
Île-de-France	23	30
White	65	64
African	15	11
Asian	2	0
Middle Eastern	1	0

Table 2 Summary Statistics of Control Variables for Experiment 1 (Negative Emotions)		
variable	LREM	RN
18-24	23	22
25-34	23	24
35-44	19	21
45-54	18	15
above 54	1	1
Male	41	44
Female	43	39
Less than 25,000 Euro	16	13
25,000-49,999 Euro	11	14
50,000-74,999 Euro	44	46
75,000-99,999 Euro	7	8
100,000-149,999 Euro	5	2
150,000 Euro or more	1	0
Less than 12,000 Euro	16	13
12,000-29,999 Euro	49	54
30,000-54,999 Euro	11	12
55,000-79,999 Euro	6	4
80,000-129,999 Euro	2	0
Some high school or less	1	2
High school diploma	9	7
Bachelor degree	61	63
Graduate or professional degree	13	11
Auvergne-Rhône-Alpes	5	9
Bourgogne-Franche-Comté	6	5
Bretagne	6	4

Centre-Val de Loire	4	4
Grand Est	2	4
Hauts-de-France	2	4
Normandie	5	4
Nouvelle-Aquitaine	3	3
Occitanie	5	5
Pays de la Loire	11	7
Provence-Alpes-Côte d'Azur	6	5
Île-de-France	29	26
Corse	0	3
White	70	67
African	14	12
Middle Eastern	0	4

5.2. Group balance check for Experiment 2 and 3

Table 3 shows the statistical summary of the control variables in experiments 2 and 3. First, because the baseline group was used only as a baseline for testing different mood types in experiments 2 and 3, it was possible to ignore its differences from the other groups. The remaining four groups had very similar sample sizes for each control variable. Therefore, we have reason to think that the group balance in the two experiments is good, and the sample has enough reliability and interpretability.

Table 3 Summary Statistics of Control Variables for Experiment 2 and 3

variable	angry	baseline	fear	happy	proud
18-24	22	24	23	15	23
25-34	17	24	30	23	22
35-44	21	18	19	25	21
45-54	22	24	11	16	13
above 54	0	2	2	0	0
Male	47	47	38	42	46
Female	35	45	47	37	33
Less than 25,000 Euro	14	14	15	12	15
25,000-49,999 Euro	13	15	12	18	11
50,000-74,999 Euro	43	19	47	33	33
75,000-99,999 Euro	8	27	7	11	13
100,000-149,999 Euro	3	11	4	5	5
150,000 Euro or more	1	6	0	0	2
Less than 12,000 Euro	17	17	12	20	15
12,000-29,999 Euro	50	28	53	34	32
30,000-54,999 Euro	10	22	13	18	25
55,000-79,999 Euro	3	19	7	7	4
80,000-129,999 Euro	2	3	0	0	2

130,000 Euro or more	0	3	0	0	1
High school diploma	2	1	1	2	1
Bachelor degree	8	15	8	9	15
Graduate or professional degree	61	65	63	51	48
Some high school or less	11	11	13	17	15
LREM (democratic party)	41	43	43	43	40
RN (populist party)	41	49	42	36	39
Auvergne-Rhône-Alpes	8	12	6	6	9
Bourgogne-Franche-Comté	8	4	3	1	2
Bretagne	5	3	5	3	9
Centre-Val de Loire	4	4	4	3	7
Corse	1	3	2	2	1
Grand Est	6	4	0	6	9
Hauts-de-France	4	3	2	4	2
Normandie	5	7	4	3	1
Nouvelle-Aquitaine	4	3	2	5	1
Occitanie	6	4	4	5	4
Pays de la Loire	7	3	11	5	6

Provence-Alpes-Côte d'Azur	3	5	8	5	6
Île-de-France	21	37	34	31	22
White	66	79	71	60	69
African	14	11	12	17	9
Asian	2	2	2	1	0
Middle Eastern	0	0	0	1	1

6. Analysis

6.1. Experiment 1

The first experiment looked at the effect of mood and voter stance on voter turnout across party lines. Since the established model should be used, this experiment will model the democratic party LREM and the populist party RN respectively. At the same time, this experiment will also measure the influence of positive emotions and negative emotions on voter turnout in the two political parties.

In general, the voter turnout of RNS in the sample is slightly higher than that of LREM voters. About 71% of RN's supporters are willing to vote in the next election (Figure 1). This is also in line with reality. Among voters who answered questions about positive emotions, turnout was slightly higher for LREM (66 percent) than for RN (64 percent) (Figure 2). Among the voters who answered the question about negative emotions, the voter turnout rate of RN was significantly higher than that of LREM. About 74.6% of RN's supporters are willing to vote in the next election. Only 67.8% of LREM supporters were willing to vote (Figure 3).

Figure 1 Partisanship and Voting Decision (Total)

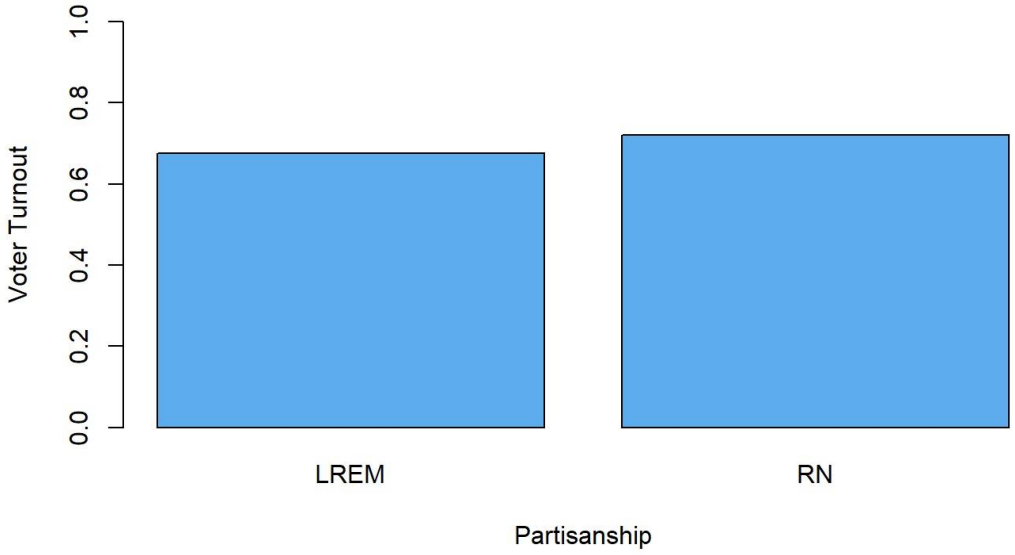


Figure 2 Partisanship and Voting Decision (Positive Emotions)

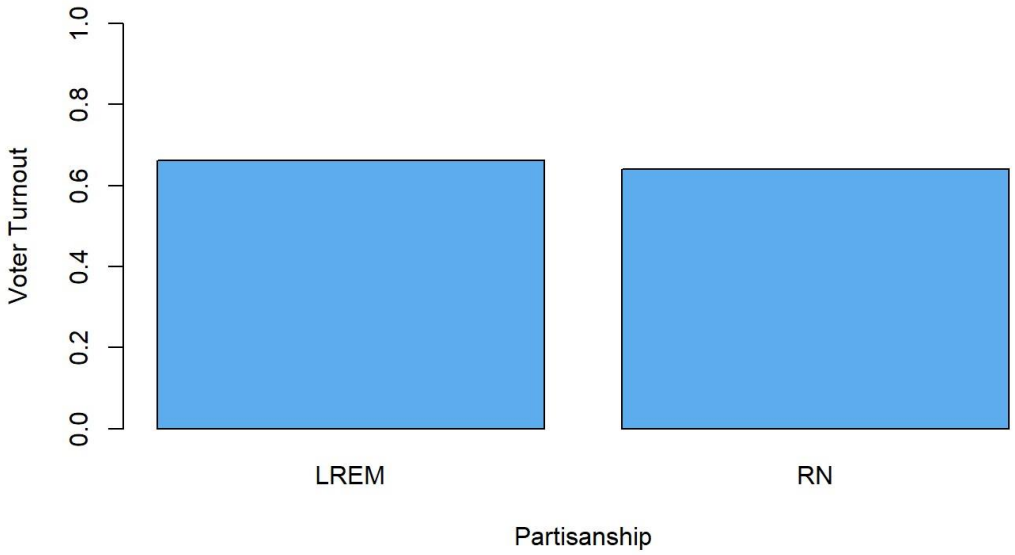
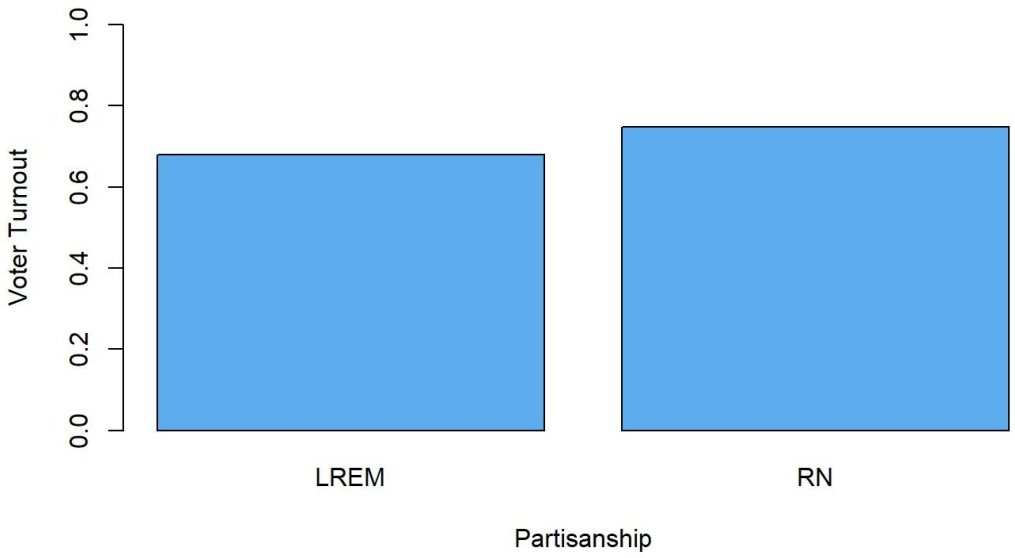


Figure 3 Partisanship and Voting Decision (Negative Emotions)



The specific analysis of the relationship between LREM and RN's emotions and voter turnout is based on the model established above. After bringing the data into the model, I built a specialized Logic model:

Logit (voting_decision) = β_0 + β_1*pd + β_2*id_eu + β_3*id_im + β_4*ed_p + β_5*ed_c + β_6*ed_eu + β_7*ed_im + β_8*control,

In this model, "voting_decision" represents if the voter wants to participate in voting in the next election. "pd" represents the party differential between LREM and RN. "id_eu" and "id_im" are the issue differential about the European integration issue and the immigration issue. "ed_p" represents the emotion differential between LREM and RN, while "ed_c" stands for the emotion differential between Marcon and Le Pen. "ed_eu" and "ed_im" represent the emotion differential of the European integration issue and the immigration issue. Finally, "control" includes various control variables I will use.

After determining the model, I first tested the sample whose emotions were positive

emotions. In Model 1 and 2, control variables are not included. Model 1 tested the relationship between positive emotion and voter turnout among supporters of the Democratic Party LREM. According to the results, the coefficient of party differential is not statistically significant (p value = 0.6511). That means there is not enough evidence to show a correlation between party differential and voter turnout. At the same time, the issue differential about European integration has a significant positive impact on voter turnout (coef = 0.478, p value = 0.0015). The issue differential about immigration and the party differential about parties also has a positive effect on voter turnout, but it is not as statistically significant as the issue differential about European integration.

Model 1					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-6.303	1.690	-3.730	0.0002	***
pd	0.064	0.141	0.452	0.6511	
id_eu	0.478	0.151	3.170	0.0015	**
id_im	0.305	0.136	2.241	0.0250	*
ed_p	0.418	0.162	2.575	0.0100	*
ed_c	0.183	0.125	1.463	0.1434	
ed_eu	0.106	0.129	0.825	0.4094	
ed_im	0.176	0.123	1.437	0.1506	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 106.1 on 82 degrees of freedom
Residual deviance: 72.66 on 75 degrees of freedom

Model 2 tested the results of RN, the populist party. According to Model 2, neither party differential nor issue differential has significant correlation to voter turnout. In terms of emotion differential, the emotion differential toward the candidates has the strongest effect on voter turnout (coef = 0.993). The emotion differential about political parties and immigration issues

also has a strong positive effect on voter turnout, with coefficients above 0.9. Finally, the emotion differential on European integration issues also has a positive effect on voter turnout (coef = 0.529).

Model 2					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-14.533	4.186	-3.472	0.0005	***
pd	0.226	0.200	1.127	0.2596	
id_eu	0.320	0.176	1.822	0.0684	.
id_im	0.216	0.229	0.943	0.3456	
ed_p	0.979	0.314	3.117	0.0018	**
ed_c	0.993	0.294	3.384	0.0007	***
ed_eu	0.529	0.199	2.658	0.0079	**
ed_im	0.919	0.292	3.145	0.0017	**

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 98.01 on 74 degrees of freedom
Residual deviance: 40.84 on 67 degrees of freedom

Based on the results of Model 1 and Model 2, voters who support democratic parties are more likely to vote in elections because of the differences in the two parties' positions on key issues. At the same time, the difference in positive emotions between LREM and RN also drives them to vote. For voters who support populist parties, their voting patterns are more emotion-driven, that is, driven by the difference in emotion between the two parties. At the same time, the positive feelings that drive supporters of populist parties to vote come from many sources, including parties, candidates, and key issues. While supporters of democratic parties are also emotionally driven, they are much less so than supporters of populist parties. This result supports H1. However, supporters of populist parties are not clearly issue-driven to vote, which

counters H2.

Next, to control for possible confounding factors, I fill in the model with two control variables: education (education) and political interest (poli_interest). Models 3 and 4 add these two control variables to the results of models that survey emotions as positive. Model 3 explains the results of the Democratic Party LREM. According to Model 3, the motivation of supporters of democratic parties to participate in voting mainly comes from the concern about two key issues and the emotional drive from political parties. Among them, the strongest driving factor is the issue differential of European integration (coef = 0.498). At the same time, according to residual deviance results, Model 3 has a better fit (residual deviance = 70.85) than Model 1 (residual deviance = 72.66).

Model 3					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-5.824	2.358	-2.470	0.0135	*
pd	0.033	0.150	0.217	0.8283	
id_eu	0.498	0.160	3.115	0.0018	**
id_im	0.342	0.146	2.342	0.0192	*
ed_p	0.454	0.169	2.688	0.0072	**
ed_c	0.230	0.133	1.727	0.0842	.
ed_eu	0.093	0.132	0.703	0.4818	
ed_im	0.150	0.125	1.198	0.2307	
education	0.103	0.563	0.183	0.8544	
poli_interest	-0.345	0.262	-1.316	0.1882	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 106.1 on 82 degrees of freedom
Residual deviance: 70.85 on 73 degrees of freedom

Model 4 is the Model after adding two control variables based on Model 2. Similar to the results of Model 2, Model 4 suggest that voters for populist parties are driven to vote by emotion. These emotions are rooted in the parties, the candidates, and the key issues. But the results were stronger in Model 4 than they were in Model 2. For example, the effect of voter emotion differential on voter turnout in Model 4 (coef = 1.022) is much stronger than the result in Model 2 (coef = 0.993). At the same time, residual deviance results also show that Model 4 (residual deviance = 39.96) has a higher fitting ability and explanation ability than Model 2 (residual deviance = 40.84). Finally, Model 3 and Model 4 results also provide evidence in support of H1. But it still doesn't provide enough evidence to support H2.

Model 4					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-16.789	5.107	-3.287	0.0010	**
pd	0.212	0.205	1.036	0.3001	
id_eu	0.325	0.182	1.786	0.0741	.
id_im	0.235	0.236	0.998	0.3183	
ed_p	0.975	0.326	2.992	0.0028	**
ed_c	1.022	0.304	3.357	0.0008	***
ed_eu	0.507	0.210	2.415	0.0158	*
ed_im	0.925	0.296	3.124	0.0018	**
education	0.534	0.668	0.800	0.4238	
poli_interest	0.178	0.393	0.453	0.6507	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 98.01 on 74 degrees of freedom
Residual deviance: 39.96 on 65 degrees of freedom

In order to further verify the results obtained, I add age, gender and race three control

variables on the basis of Model 3 and 4 and get Model 5 and 6. The three controlling variables of household annual income, individual annual income and region are not included in these two models, because the sample is too small, which leads to the problem of complete separability.

According to Model 5, voter participation in democratic parties is primarily driven by key issues and emotions. The driving emotions include candidates in addition to the parties mentioned in the previous model. Of all the driving factors, the most important were political party emotion (coef = 0.654) and European integration issues (coef = 0.628). Finally, the residual deviance showed that Model 5 (residual deviance = 61.66) fitted the data better than the previous two models.

Model 5					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-9.569	3.410	-2.806	0.0050	**
pd	-0.022	0.169	-0.133	0.8946	
id_eu	0.628	0.186	3.381	0.0007	***
id_im	0.351	0.166	2.110	0.0348	*
ed_p	0.654	0.211	3.093	0.0020	**
ed_c	0.374	0.164	2.275	0.0229	*
ed_eu	0.211	0.160	1.318	0.1873	
ed_im	0.173	0.136	1.267	0.2053	
age1	-0.452	0.339	-1.331	0.1833	
gender	1.647	0.787	2.093	0.0364	*
education	0.554	0.608	0.912	0.3619	
race	-0.697	0.664	-1.049	0.2940	
poli_interest	-0.430	0.297	-1.447	0.1479	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 106.1 on 82 degrees of freedom
Residual deviance: 61.66 on 70 degrees of freedom

The Model 6 is based on the Model 4 after adding control variables. According to the results, the main drivers of populist parties' participation in electoral voting are emotion towards the parties, candidates and key issues. At the same time, emotion drives voters of populist parties far more than voters of democratic parties. Moreover, the issue of European integration has some driving power for populist voters. However, this factor was not statistically significant enough (p value = 0.0795), and its driving force was smaller than that of the issue for voters of democratic parties. Finally, Residual deviance results show that the fitting ability of Model 6 (residual deviance = 29.91) is much stronger than that of Model 2 and Model 4.

	Model 6				
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-27.076	9.392	-2.883	0.0039	**
pd	0.286	0.246	1.161	0.2457	
id_eu	0.462	0.263	1.754	0.0795	.
id_im	0.404	0.309	1.306	0.1915	
ed_p	1.596	0.604	2.640	0.0083	**
ed_c	1.413	0.479	2.949	0.0032	**
ed_eu	0.947	0.406	2.331	0.0197	*
ed_im	1.219	0.425	2.871	0.0041	**
age1	0.869	0.735	1.183	0.2369	
gender	-1.144	1.104	-1.036	0.3004	
education	0.156	0.963	0.162	0.8710	
race	3.903	2.029	1.924	0.0544	.
poli_interest	-0.065	0.490	-0.133	0.8943	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 98.01 on 74 degrees of freedom
Residual deviance: 29.91 on 62 degrees of freedom

In general, voters for populist parties are more likely to be motivated by emotions, while

voters for democratic parties are more likely to be motivated by party emotions and key issues, especially European integration. At the same time, emotions drive voters for populist parties much more than they do for democratic parties, and the opposite is true for key issues. The results of the six models effectively support H1, but do not provide clear evidence for H2. However, due to the small sample size, the analysis of positive emotion data is affected by the problem of full separability. Therefore, this experiment analyzes the relationship between negative emotions and voter turnout to confirm the conclusion.

Model 7 and 8 are models that do not contain control variables. Model 7 explains the relationship between negative emotion and voter turnout in democratic parties. According to the results, the main driving force for the participation of supporters of democratic parties was two key issues and negative emotion towards the issue of European integration. Among them, the migration issue has the strongest driving power (coef = 0.546). Model 8 explains the relationship between negative emotion and voter turnout in populist parties. According to Model 8, populist voters are driven to vote by immigration issues and negative feelings about political parties. Populist voters are more emotionally driven than supporters of democratic parties (coef = 0.428). But immigration is not as strong a driver for populist voters (coef = 0.427) as it is for supporters of democratic parties (coef = 0.546).

Model 7					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-6.374	1.769	-3.602	0.0003	***
pd	-0.019	0.133	-0.140	0.8883	
id_eu	0.457	0.142	3.215	0.0013	**
id_im	0.546	0.180	3.031	0.0024	**
ed_p	0.199	0.160	1.245	0.2131	
ed_c	0.036	0.132	0.271	0.7864	
ed_eu	0.365	0.171	2.129	0.0333	*
ed_im	0.062	0.138	0.453	0.6503	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 105.5 on 83 degrees of freedom
Residual deviance: 72.91 on 76 degrees of freedom

Model 8					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-4.420	1.864	-2.371	0.0177	*
pd	-0.056	0.136	-0.408	0.6833	
id_eu	0.193	0.133	1.449	0.1472	
id_im	0.427	0.148	2.880	0.0040	**
ed_p	0.428	0.152	2.821	0.0048	**
ed_c	-0.016	0.133	-0.124	0.9016	
ed_eu	0.015	0.131	0.112	0.9111	
ed_im	0.088	0.132	0.665	0.5061	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 93.89 on 82 degrees of freedom
Residual deviance: 73.95 on 75 degrees of freedom

Model 9 and 10 are based on Model 7 and 8 by adding two control variables: education and political interest. Model 7 shows that democratic parties' voter participation is driven by two key issues and emotion towards European integration. The resulting drive strength is also very similar to that of the Model 7. At the same time, the residual deviance of the Model 9 (72.63)

is slightly higher than that of the Model 7 (72.91). Overall, the fitting ability of the two models is not much different.

Model 9					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-7.314	2.659	-2.750	0.0060	**
pd	-0.018	0.136	-0.132	0.8948	
id_eu	0.444	0.147	3.015	0.0026	**
id_im	0.548	0.188	2.915	0.0036	**
ed_p	0.197	0.159	1.235	0.2167	
ed_c	0.039	0.133	0.291	0.7709	
ed_eu	0.370	0.176	2.108	0.0351	*
ed_im	0.064	0.144	0.448	0.6541	
education	0.240	0.533	0.450	0.6524	
poli_interest	0.065	0.230	0.282	0.7778	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 105.5 on 83 degrees of freedom
Residual deviance: 72.63 on 74 degrees of freedom

Model 10 shows that the main driving forces for supporters of populist parties to participate in voting are key issues and emotion towards the party. Populist voters are less influenced by key issues than they are by democratic party voters. Compared to the Model 8, the intensity of the major drivers in the Model 10 has become higher. The residual deviance of Model 10 (66.47) is much smaller than that of Model 8 (73.95).

Model 10					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-11.889	3.895	-3.052	0.0023	**
pd	-0.096	0.147	-0.656	0.5118	
id_eu	0.354	0.164	2.153	0.0314	*
id_im	0.489	0.158	3.103	0.0019	**
ed_p	0.472	0.157	3.011	0.0026	**
ed_c	0.038	0.142	0.269	0.7878	
ed_eu	0.079	0.143	0.555	0.5788	
ed_im	0.054	0.145	0.375	0.7074	
education	1.642	0.710	2.314	0.0207	*
poli_interest	0.313	0.283	1.106	0.2686	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 93.89 on 82 degrees of freedom
Residual deviance: 66.47 on 73 degrees of freedom

The composition of Model 11 and 12 is the same as the composition of Model 5 and 6, except for the data changes. According to Model 11, voter participation in elections of democratic parties is mainly influenced by two key issues. Among them, the driving strength of immigration (coef = 0.615) is slightly higher than that of European integration (coef = 0.510). While emotion on European integration issues has a certain effect on voter turnout, it is not statistically significant enough (p value = 0.0728). Finally, of the models 7,9 and 11, Model 11 had the strongest fit (residual deviance = 70.05).

Model 11					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-7.918	3.576	-2.214	0.0268	*
pd	-0.069	0.151	-0.456	0.6480	
id_eu	0.510	0.171	2.988	0.0028	**
id_im	0.615	0.205	2.996	0.0027	**
ed_p	0.175	0.163	1.074	0.2827	
ed_c	0.003	0.143	0.019	0.9847	
ed_eu	0.332	0.185	1.794	0.0728	.
ed_im	0.133	0.161	0.826	0.4086	
age1	0.356	0.305	1.164	0.2443	
gender	-0.790	0.712	-1.110	0.2671	
education	0.318	0.570	0.558	0.5767	
race	0.482	0.937	0.514	0.6071	
poli_interest	0.024	0.251	0.095	0.9244	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 105.5 on 83 degrees of freedom
Residual deviance: 70.05 on 71 degrees of freedom

In Model 12, the main drivers of populist voter participation remain two key issues and emotion toward political parties. While immigration is a stronger driver among voters of populist parties than emotion toward political parties, it is still less powerful than it is among voters of democratic parties. Finally, Model 12 is also the best fit model in the data for measuring negative emotions.

Model 12					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-11.369	4.516	-2.517	0.0118	*
pd	-0.104	0.153	-0.680	0.4967	
id_eu	0.373	0.172	2.169	0.0301	*
id_im	0.516	0.165	3.126	0.0018	**
ed_p	0.509	0.177	2.880	0.0040	**
ed_c	0.002	0.160	0.010	0.9922	
ed_eu	0.088	0.150	0.588	0.5564	
ed_im	0.063	0.146	0.429	0.6676	
age1	0.018	0.317	0.057	0.9542	
gender	-0.235	0.705	-0.334	0.7385	
education	1.742	0.783	2.226	0.0260	*
race	-0.676	0.557	-1.214	0.2248	
poli_interest	0.330	0.297	1.112	0.2662	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 93.89 on 82 degrees of freedom
Residual deviance: 64.69 on 70 degrees of freedom

Overall, the results of the 12 models all confirm H1, that is, voter turnout of populist parties is more strongly driven by emotions than that of democratic parties. However, these results provide evidence against H2. Voters in democratic parties are more motivated by key issues than supporters of populist parties. They are also more likely to vote because of differences between the two parties' positions on key issues. At the same time, according to the results, French voters are more concerned about European integration than immigration. The issue of European integration is more likely to mobilize voters.

6 2. Experiment 2

This experiment will explore the difference between positive emotion and negative emotion

on voter turnout. In terms of data selection, this experiment divided the data into three groups: baseline group (samples that did not participate in the emotion test), positive group (samples that participated in the positive emotion test) and negative group (samples that participated in the negative emotion test). At the same time, the model selection is based on age, gender, education, political interest, race and region. This model fits best in the first experiment.

Model 15 shows the results of bringing the baseline group data into the model. According to Model13, the driving of immigration issues has a positive impact on voter turnout. It was also statistically significant (p value = 0.0029). Model 16 is the result of bringing the data of the positive group into the model. According to the results, the main drivers of voter participation were European integration issues, as well as emotion towards political parties, candidates and two key issues. Political party emotion was the strongest driver (coef = 0.530).

Model 13					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-2.298	2.414	-0.952	0.3411	
pd	-0.153	0.131	-1.166	0.2437	
id_eu	0.202	0.116	1.733	0.0830	.
id_im	0.428	0.144	2.977	0.0029	**
ed_p					
ed_c					
ed_eu					
ed_im					
age1	-0.173	0.255	-0.678	0.4976	
gender	-0.283	0.558	-0.506	0.6127	
education	-0.091	0.476	-0.191	0.8486	
race	1.436	1.103	1.302	0.1931	
poli_interest	0.189	0.235	0.802	0.4224	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 103.5 on 91 degrees of freedom
Residual deviance: 83.25 on 83 degrees of freedom

Model 14					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-9.598	2.210	-4.344	0.0000	***
pd	0.120	0.108	1.105	0.2692	
id_eu	0.407	0.107	3.811	0.0001	***
id_im	0.154	0.102	1.520	0.1286	
ed_p	0.530	0.128	4.139	0.0000	***
ed_c	0.431	0.109	3.950	0.0001	***
ed_eu	0.256	0.103	2.486	0.0129	*
ed_im	0.344	0.108	3.196	0.0014	**
age1	0.016	0.233	0.069	0.9452	
gender	0.965	0.484	1.994	0.0462	*
education	0.272	0.396	0.687	0.4923	
race	-0.220	0.512	-0.429	0.6676	
poli_interest	-0.138	0.197	-0.701	0.4836	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 204.2 on 157 degrees of freedom
Residual deviance: 127.2 on 145 degrees of freedom

Model 17 shows the relationship between negative emotions and voter turnout. According to the results, voter turnout was influenced by two key issues and emotion towards political parties. However, compared with Model 14, the emotion towards political parties in Model 15 is weaker as a motivation for voters to vote (coef = 0.347). This refutes H3.

Model 15					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-7.483	2.329	-3.213	0.0013	**
pd	-0.018	0.095	-0.191	0.8488	
id_eu	0.314	0.091	3.451	0.0006	***
id_im	0.526	0.117	4.476	0.0000	***
ed_p	0.347	0.107	3.235	0.0012	**
ed_c	-0.007	0.099	-0.072	0.9423	
ed_eu	0.151	0.094	1.611	0.1071	
ed_im	0.007	0.094	0.072	0.9423	
age1	0.102	0.193	0.528	0.5978	
gender	-0.430	0.440	-0.977	0.3284	
education	0.776	0.411	1.888	0.0590	.
race	-0.330	0.400	-0.827	0.4085	
poli_interest	0.187	0.163	1.142	0.2533	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 200.3 on 166 degrees of freedom
Residual deviance: 145.9 on 154 degrees of freedom

For this result, possible explanations are proposed from both experimental and theoretical aspects. On the one hand, the sample size of this experiment is small, which may lead to a large error in the overall result due to selection bias. At the same time, the data of the positive group seemed to have the problem of complete separability when the model was fitted. However, due to the length and technical reasons, this study does not carry out further detection.

On the other hand, positive emotions as a driver can also be effective in increasing voter turnout. Brader (2005) found that positive emotions can enhance voters' support for candidates and increase their willingness to vote. Valentino et al. (2011) further demonstrated that positive emotions can increase voter turnout by enhancing voters' sense of political efficacy. At the same time, respondents read an introduction to LREM and RN before measuring their emotions. This

may improve voters' sense of connection and belonging to the party. Questions about positive emotions were more likely to promote a sense of belonging. Therefore, when answering their own voting decision, respondents in the positive group were more likely to express their sense of responsibility and involvement in their own party by participating in the vote.

6.3. Experiment 3

The third experiment looked at the effect of different types of negative emotions on voter turnout. The negative emotions selected in this experiment were anger and fear. These two emotions are also the most representative negative emotions.

Model 18 is the result of bringing the data from the fear group into the model. According to its results, voter participation was mobilized by emotion. The main source of this emotion is political parties. Model 19 is the result of bringing the data of angry group into the model. In this model, emotion towards political parties remains the driving force behind voter participation. Meanwhile, anger toward political parties (coef = 0.369) was less of a driver than fear of political parties (coef = 0.490). This evidence effectively supports H4, which suggests that fear is more likely to boost voter turnout than anger.

Model 16					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-9.088	4.719	-1.926	0.0541	.
pd	-0.128	0.196	-0.651	0.5149	
id_eu	0.535	0.193	2.769	0.0056	**
id_im	1.072	0.318	3.366	0.0008	***
ed_p	0.490	0.215	2.280	0.0226	*
ed_c	-0.168	0.189	-0.889	0.3743	
ed_eu	0.238	0.170	1.397	0.1623	
ed_im	-0.092	0.159	-0.578	0.5633	
age1	0.266	0.367	0.725	0.4686	
gender	-1.174	0.846	-1.388	0.1651	
education	1.104	0.791	1.395	0.1630	
race	-0.311	0.739	-0.421	0.6737	
poli_interest	-0.119	0.315	-0.377	0.7062	

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 95.04 on 84 degrees of freedom
Residual deviance: 51.25 on 72 degrees of freedom

Model 17					
	Estimate	Standard Error	z value	Pr(>|z|)	
(Intercept)	-7.208	3.091	-2.332	0.0197	*
pd	-0.034	0.123	-0.278	0.7813	
id_eu	0.218	0.120	1.822	0.0685	.
id_im	0.340	0.145	2.346	0.0190	*
ed_p	0.369	0.155	2.386	0.0170	*
ed_c	0.033	0.136	0.243	0.8080	
ed_eu	0.084	0.130	0.649	0.5162	
ed_im	0.177	0.137	1.291	0.1969	
age1	0.107	0.254	0.420	0.6744	
gender	-0.316	0.604	-0.523	0.6013	
education	0.535	0.564	0.950	0.3423	
race	-0.675	0.523	-1.290	0.1971	
poli_interest	0.487	0.233	2.087	0.0368	*

*Signif. codes: 0 <= '***' < 0.001 < '**' < 0.01 < '*' < 0.05*

(Dispersion parameter for binomial family taken to be 1)
Null deviance: 103.9 on 81 degrees of freedom

Residual deviance: 78.53 on 69 degrees of freedom

7. Discussion

In this section, the predictive ability of the established election model is tested. At the same time, since positive emotions and negative emotions will have different effects on voter turnout, this experiment will analyze the model's processing ability of positive emotions and negative emotions respectively. At the same time, the Logit model with 5-fold cross-validation is used in this experiment. This approach allows for a better assessment of the model's ability to generalize, thereby reducing the risk of overfitting. At the same time, the sample size of this experiment is small, and cross-validation can make full use of all available data, thus reducing the limitation of limited data size.

Model 20 is a model fitted with a training set composed of 80% positive group data. The RMSE value is 0.42, indicating that the prediction accuracy of the model is high, and the model fits the data well. Model 21 is a model fitted with a training set consisting of 80% negative sets of data. Its RMSE value is 0.43, which is slightly larger than the Model 20. But overall, both models fit the data well.

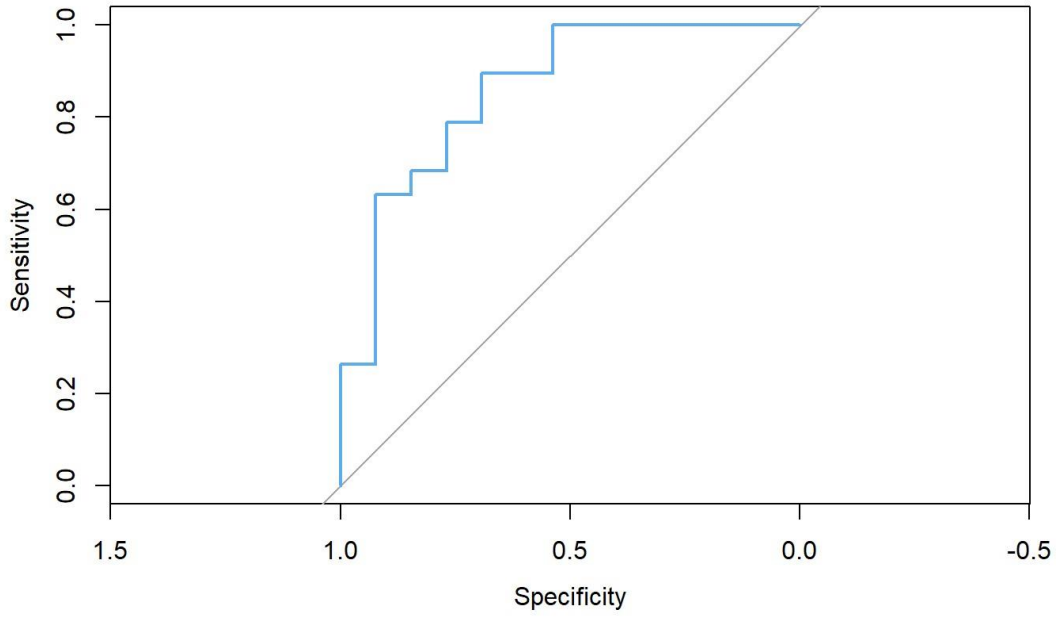
Model 18						
parameter	RMSE	Rsquared	MAE	RMSESD	RsquaredSD	MAESD
none	0.4193336	0.2635445	0.294334	0.05924349	0.1826004	0.04182327

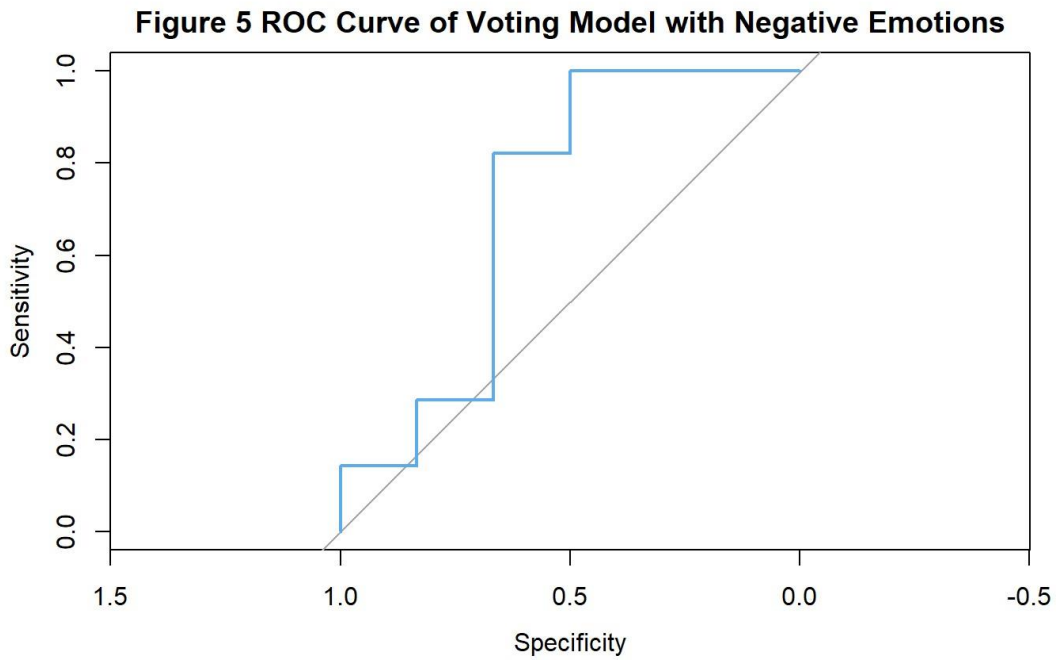
Model 19						
parameter	RMSE	Rsquared	MAE	RMSESD	RsquaredSD	MAESD
none	0.434868	0.2372204	0.325905	0.03704455	0.09860101	0.02926737

Then the research tested the predictive ability and model performance of the two models. In testing prediction ability, 0.5 is taken as the middle value in this experiment because the predictor variable is a binary variable. In other words, if the prediction is less than 0.5, it is classified as 0, and if it is greater than or equal to 0.5, it is classified as 1. With the data brought into the test group, the Model 20 had a prediction accuracy of 0.75, while the Model 21 had a prediction accuracy of 0.82. Although the prediction ability of the model for positive emotions is not as good as that for negative emotions, its prediction accuracy is more than 70%. This shows that the model has strong enough forecasting ability.

In this experiment, AUC values and ROC curves were used to evaluate the classification performance of the model. According to the results, Model 20 has an AUC value of 0.86, while Mddel 21 has an AUC value of 0.71. This indicates that the model has a strong classification ability for both positive and negative emotions. The ROC curve shows the performance of the model under different thresholds (Figure 4 and Figure 5).

Figure 4 ROC Curve of Voting Model with Positive Emotions





8. Conclusion

Motivated by the research on election behavior and voter turnout, this study constructs a voting model, and based on this, studies the relationship between emotions and voter turnout in different political parties and the relationship between different types of emotions and voter turnout. Through three survey experiments, the results show that emotions, as a mobilizing factor, have a stronger impact on supporters of populist parties than supporters of democratic parties. Democratic Party voters, meanwhile, are more likely to vote because they are driven by key issues. At the same time, positive emotions are more likely than negative emotions to mobilize voters to participate in elections. Among the negative emotions, fear is more likely to mobilize voters to participate in the election than anger. Finally, the prediction ability and performance of the proposed model are illustrated, which proves that it is a reliable election prediction model.

However, the study faces two limitations. For one thing, the study had a small sample size. Although there are more than 400 samples, the number of samples in each group is too small due to the large number of subgroups. This leads to results that can be skewed by a small sample size, which generalizes the views of only a subset of voters rather than showing the general views of the electorate as a whole. At the same time, the small sample size also leads to the emergence of similar complete separability problems. Due to the limitation of technology and space, this study did not solve this problem in the paper, but only excluded the relevant control variables.

On the other hand, while the study tested that the model performed well when fitting with the Logit model, it lacked comparisons with other models. Therefore, the Logit model cannot

be determined to be the best predictive model. At the same time, fewer control variables are used in this study, which also makes it impossible to consider more internal validity problems in regression analysis and prediction.

Nevertheless, this study still makes an outstanding contribution to the field of voting behavior. This research breaks through the traditional Tang's election model, improves and optimizes the existing election model, and forms a new election model. At the same time, by using this model to analyze the relationship between emotion and voter turnout rate and testing the model's predictive ability, this project obtains an election model with strong explanatory and predictive ability for voter turnout rate in democratic countries.

In terms of methodology, this project adopts a data collection method combining online and offline surveys. On the one hand, online data collection avoids the regional limitations of data collection. On the other hand, offline data collection can improve the quality of data, and at the same time make up for the possible selectivity bias in online data collection to a certain extent, ensuring the availability and interpretability of data.

Appendix I Summary Statistics of Control Variables

Table 4 summary statistics of partisanship

Partisanship	
LREM	0.5035971
RN	0.4964029

Table 5 summary statistics of treatment groups

Treatment Group	
angry	0.1966427
baseline	0.2206235
fear	0.2038369
happy	0.1894484
proud	0.1894484

Table 6 summary statistics of age

Age	
18-24	0.256594724
25-34	0.278177458
35-44	0.249400480
45-54	0.206235012
above 54	0.009592326

Table 7 summary statistics of gender

Gender	
Male	0.5275779
Female	0.4724221

Table 8 summary statistics of family annual income

Family annual income	
Less than 25,000 Euro	0.16786571
25,000-49,999 Euro	0.16546763
50,000-74,999 Euro	0.41966427
75,000-99,999 Euro	0.15827338
100,000-149,999 Euro	0.06714628
150,000 Euro or more	0.02158273

Table 9 summary statistics of individual annual income

Individual annual income	
Less than 12,000 Euro	0.194244604
12,000-29,999 Euro	0.472422062
30,000-54,999 Euro	0.211031175
55,000-79,999 Euro	0.095923261
80,000-129,999 Euro	0.016786571
130,000 Euro or more	0.009592326

Table 10 summary statistics of education

Education level	
Some high school or less	0.01678657
High school diploma	0.13189448
Bachelor degree	0.69064748
Graduate or professional degree	0.16067146

Table 11 summary statistics of political interest

	Political Interest
0	0.002398082
1	0.047961631
2	0.352517986
3	0.201438849
4	0.187050360
5	0.208633094

Table 12 summary statistics of race

	Race
White	0.827338129
African	0.151079137
Asian	0.004796163
Middle Eastern	0.016786571

Table 13 summary statistics of region

Region	
Auvergne-Rhône-Alpes	0.09832134
Bourgogne-Franche-Comté	0.04316547
Bretagne	0.05995204
Centre-Val de Loire	0.05275779
Corse	0.02158273
Grand Est	0.05995204
Hauts-de-France	0.03597122
Île-de-France	0.34772182
Normandie	0.04796163
Nouvelle-Aquitaine	0.03597122
Occitanie	0.05515588
Pays de la Loire	0.07673861
Provence-Alpes-Côte d'Azur	0.06474820

Appendix II t-tests for control variables in Experiment 1

1. Positive Group

Table 14 t test for age

T test for age (Positive group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
0.1860241	2.506024	2.32	1.116925	0.2657516	155.2643	-0.1429725	0.5150207	Welch Two Sample t-test	Two sided

Table 15 t test for family annual income

T test for family annual income (Positive group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
0.2877108	2.927711	2.64	1.569877	0.1184701	155.9763	-0.0742998	0.6497215	Welch Two Sample t-test	Two sided

Table 16 t test for gender

T test for gender (Positive group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
0.05654618	1.46988	1.413333	0.7115913	0.4777891	154.7665	-0.1004287	0.213521	Welch Two Sample t-test	Two sided

Table 17 t test for individual annual income

T test for individual annual income (Positive group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
-0.0257028	2.240964	2.266667	-0.1680965	0.8667255	155.6912	-0.327739	0.2763334	Welch Two Sample t-test	Two sided

Table 18 t test for education

T test for education (Positive group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
-0.0774297	2.975904	3.053333	-0.7357196	0.4630312	152.535	-0.2853529	0.1304934	Welch Two Sample t-test	Two sided

Table 19 t test for race

T test for education (Positive group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
-0.0774297	2.975904	3.053333	-0.7357196	0.4630312	152.535	-0.2853529	0.1304934	Welch Two Sample t-test	Two sided

2. Negative Group

Table 20 t test for age

T test for age (Negative group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
0.0311245	2.416667	2.385542	0.1791202	0.8580632	164.9052	-0.3119629	0.3742119	Welch Two Sample t-test	Two sided

Table 21 t test for family annual income

T test for family annual income (Negative group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
0.06353987	2.72619	2.662651	0.3965215	0.6922464	160.6974	-0.2529142	0.379994	Welch Two Sample t-test	Two sided

Table 22 t test for gender

T test for gender (Negative group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
0.04202524	1.511905	1.46988	0.5403838	0.5896612	164.9815	-0.1115261	0.1955765	Welch Two Sample t-test	Two sided

Table 23 t test for individual annual income

T test for individual annual income (Negative group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
0.07042456	2.154762	2.084337	0.5648349	0.5729937	156.7048	-0.1758489	0.316698	Welch Two Sample t-test	Two sided

Table 24 t test for education

T test for education (Negative group)									
estimate	estimate1	estimate2	statistic	p value	parameter	conf. low	conf. high	method	alternative
0.02380952	3.02381	3	0.2741525	0.7843105	164.9403	-0.1476671	0.1952861	Welch Two Sample t-test	Two sided

Appendix III Survey Questions in English

Thank you for your interest in our study regarding people's opinion about political and non political events. This survey is for a master's thesis and will take approximately around 10 minutes.

By completing the survey, you get a chance to win $100. The winner will be chosen using a lottery in the last week of June. If you wish to participate in the lottery, you will have the option to provide an email address after you complete the survey. Your email will be used exclusively to contact you in case you won the prize.

Your privacy is a priority to us. Therefore, the survey will not collect any personal information (besides the email, if voluntarily provided). Your responses will be kept completely anonymous and reported only in the aggregate.

Due to academic requirements, the analysis and the dataset will be available online at the thesis repository of the Central European University in Vienna, Austria. However, no personal information will be published. You can choose not to answer any given question by selecting "prefer not to say" and continue the survey. You can also decide to exit the survey at any given time. The survey can only be answered once. Thank you very much and we highly appreciate your time and effort!

By checking the "I agree" box below, you are consenting to participate in this study.

1. How old are you?

A: 18-24 years old; 25-34 years old; 35-44 years old; 45-54 years old; Above 54 years old

2. How do you describe yourself?

A: Male, Female, Non-binary / third gender, Prefer to self-describe, Prefer not to say

3. What was your total household income before taxes during the past 12 months?

A: Less than 25,000 Euro, 25,000-49,999 Euro, 50,000-74,999 Euro, 75,000-99,999 Euro, 100,000-149,999 Euro, 150,000 Euro or more, Prefer not to say

4. What was your total income before taxes during the past 12 months?

A: Less than 12,000 Euro, 12,000-29,999 Euro, 30,000-54,999 Euro, 55,000-79,999 Euro, 80,000-129,999 Euro, 130,000 Euro or more, Prefer not to say

5. What is the highest level of education you have completed?

A: Some high school or less, High school diploma, Bachelor degree, Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS etc.), Prefer not to say

6. What is your partisanship?

A: RN, LREM, no-partisanship, others, prefer not to say

7. Choose one or more races that you consider yourself to be:

A: White, African, Asian, Middle Eastern, others, prefer not to say

8. What region is your regular residence in?

Political interest

1. The French presidential election uses a _____ (fill in the type of electoral system), which includes a two-round voting process unless a candidate wins an absolute majority in the first round.

2. The French legislative body is bicameral, consisting of the National Assembly and the _____ (fill in the name of the other chamber), with members of the National Assembly

elected directly by the people.

3. The term length for the President of France is _____ (fill in the number of years), and they can be re-elected for one additional term.

4. In the French presidential election, candidates who receive more than _____ (fill in a percentage) of the vote in the first round can advance to the second round if no candidate wins an outright majority.

5. One of the main political parties in France is the RN, whose leader is _____ (insert party leader's name).

Position differential

There is a line ranging from left (liberal) to right (conservative):

Which position do you think you are?

A: -5(left, liberal) – 5(right, conservative)

Which position do you think LREM is?

A: -5(left, liberal) – 5(right, conservative)

Which position do you think RN is?

A: -5(left, liberal) – 5(right, conservative)

Issue differential

There is a line ranging from left (totally disagree) to right (totally agree):

For the European integration issue:

Do you agree with LREM's claim?

A: 0 (totally disagree) – 10 (totally agree)

Do you agree with RN's claim?

A: 0 (totally disagree) – 10 (totally agree)

For the immigration issue?

Do you agree with LREM's claim?

A: 0 (totally disagree) – 10 (totally agree)

Do you agree with RN's claim?

A: 0 (totally disagree) – 10 (totally agree)

Emotion differential (baseline group will pass this part)

LREM:

La République En Marche (LREM), founded in 2016 by Emmanuel Macron, is a centrist political party in France. The party was established with the aim of bridging the divide between the traditional left and right-wing parties in French politics. Emmanuel Macron, the founder and prominent candidate of LREM, won the French presidential election in 2017, becoming the youngest president in French history.

LREM advocates for a pro-European Union stance, supporting further European integration. The party promotes policies that aim to strengthen the EU's economic and political cohesion, enhance its global influence, and improve cooperation among member states. Macron and LREM have consistently emphasized the importance of a unified Europe that can effectively address global challenges and uphold democratic values.

On immigration, LREM's approach seeks to balance humanitarian responsibilities with national security concerns. The party supports the development of a common European asylum policy to ensure fair and efficient processing of asylum applications across the EU. It also advocates for stronger border controls and measures to combat illegal immigration, while simultaneously emphasizing the importance of integrating immigrants into French society through education, employment opportunities, and social programs.

Overall, LREM under Macron's leadership aims to modernize France's political landscape by promoting progressive policies that align with European integration and balanced immigration management.

RN:

Rassemblement National (RN), formerly known as the National Front (Front National), is a far-right political party in France. Founded in 1972 by Jean-Marie Le Pen, the party is currently led by Marine Le Pen, his daughter, who has been a prominent candidate in multiple presidential elections, including the 2017 election in which she was defeated by Emmanuel Macron.

RN is known for its Eurosceptic stance, advocating for a reduction in the European Union's influence over national policies. The party supports the reassertion of national sovereignty and calls for significant reforms within the EU to allow member states greater control over their own affairs. RN has also proposed holding a referendum on France's membership in the EU if substantial changes to the union are not achieved.

On immigration, RN takes a stringent position, advocating for strict immigration controls

and policies aimed at reducing the number of immigrants entering France. The party emphasizes the need to prioritize national security and cultural identity, proposing measures such as tightening border controls, limiting asylum applications, and increasing deportations of illegal immigrants. RN also supports policies aimed at ensuring that immigrants who are allowed to stay in France integrate fully into French society, including language and cultural assimilation programs.

Overall, RN under Marine Le Pen's leadership focuses on limiting European integration and implementing strict immigration policies, reflecting the party's broader commitment to national sovereignty and security.

Happy group (positive emotion):

How do you feel happy to the LREM?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel happy to Macron, the leader of LREM?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel happy to support European integration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel happy to support immigration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel happy to the RN?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel happy to Le Pen, the leader of RN?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel happy to resist European integration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel happy to resist immigration?

A: 0 (totally disagree) – 10 (totally agree)

Proud group (positive emotion):

How do you feel proud to the LREM?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel proud to Macron, the leader of LREM?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel proud to support European integration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel proud to support immigration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel proud to the RN?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel proud to Le Pen, the leader of RN?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel proud to resist European integration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel proud to resist immigration?

A: 0 (totally disagree) – 10 (totally agree)

Angry group (negative emotion):

How do you feel angry to the LREM?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel angry to Macron, the leader of LREM?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel angry to support European integration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel angry to support immigration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel angry to the RN?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel angry to Le Pen, the leader of RN?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel angry to resist European integration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel angry to resist immigration?

A: 0 (totally disagree) – 10 (totally agree)

Fear group (negative emotion):

How do you feel fear to the LREM?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel fear to Macron, the leader of LREM?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel fear to support European integration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel fear to support immigration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel fear to the RN?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel fear to Le Pen, the leader of RN?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel fear to resist European integration?

A: 0 (totally disagree) – 10 (totally agree)

How do you feel fear to resist immigration?

A: 0 (totally disagree) – 10 (totally agree)

Voting decision

If everything goes well, do you plan to vote in the next election?

A: Yes, No, Prefer not to say

Have you voted in the last election?

A: Yes, No, Prefer not to say

References

Aldrich, J. H. (1993). Rational choice and turnout. *American journal of political science*, 246-278.

Downs, A. (1957). An economic theory of democracy. *Harper and Row*, *28*.

Brader, T. (2005). Striking a responsive chord: How political ads motivate and persuade voters by appealing to emotions. *American Journal of Political Science*, *49*(2), 388-405.

Engesser, S., Fawzi, N., & Larsson, A. O. (2017). Populist online communication: Introduction to the special issue. *Information, communication & society*, *20*(9), 1279-1292.

Ernst, N., Engesser, S., & Esser, F. (2017). Bipolar populism? The use of anti-elitism and people-centrism by Swiss parties on social media. *Swiss political science review*, *23*(3).

Fiorina, M. P. (1976). The voting decision: instrumental and expressive aspects. *The journal of politics*, *38*(2), 390-413.

Groenendyk, E. (2019). Of two minds, but one heart: a good "gut" feeling moderates the effect of ambivalence on attitude formation and turnout. *American Journal of Political Science*, *63*(2), 368-384.

Hameleers, M., Bos, L., & De Vreese, C. H. (2017). "They did it": The effects of emotionalized blame attribution in populist communication. *Communication Research*, *44*(6), 870-900.

Immerzeel, T., & Pickup, M. (2015). Populist radical right parties mobilizing 'the people'? The role of populist radical right success in voter turnout. *Electoral Studies*, *40*, 347-360.

MacKuen, M., Wolak, J., Keele, L., & Marcus, G. E. (2010). Civic engagements: Resolute partisanship or reflective deliberation. *American Journal of Political Science*, *54*(2), 440-458.

Marcus, G. E. (1988). The structure of emotional response: 1984 presidential

candidates. *American Political Science Review*, *82*(3), 737-761.

Marcus, G. E., & MacKuen, M. B. (1993). Anxiety, enthusiasm, and the vote: The emotional underpinnings of learning and involvement during presidential campaigns. *American Political Science Review*, *87*(3), 672-685.

McCarty, N., & Meirowitz, A. (2007). *Political game theory: an introduction*. Cambridge University Press.

Miller, P. R. (2011). The emotional citizen: Emotion as a function of political sophistication. *Political psychology*, *32*(4), 575-600.

Phillips, J. B., & Plutzer, E. (2023). Reassessing the Effects of Emotions on Turnout. *The Journal of Politics*, *85*(3), 000-000.

Phoenix, D. L. (2019). *The anger gap: How race shapes emotion in politics*. Cambridge University Press.

Rico, G., Guinjoan, M., & Anduiza, E. (2017). The emotional underpinnings of populism: How anger and fear affect populist attitudes. *Swiss Political Science Review*, *23*(4), 444-461.

Riker, W. H., & Ordeshook, P. C. (1968). A Theory of the Calculus of Voting. *American political science review*, *62*(1), 25-42.

Scheller, S. (2019). The strategic use of fear appeals in political communication. *Political Communication*, *36*(4), 586-608.

Smets, K., & Van Ham, C. (2013). The embarrassment of riches? A meta-analysis of individual-level research on voter turnout. *Electoral studies*, *32*(2), 344-359.

Valentino, N. A., Hutchings, V. L., & Williams, D. (2004). The impact of political advertising on knowledge, Internet information seeking, and candidate preference. *Journal of*

communication, *54*(2), 337-354.

Vasilopoulos, P., Marcus, G. E., & Foucault, M. (2018). Emotional responses to the Charlie Hebdo attacks: Addressing the authoritarianism puzzle. *Political psychology*, *39*(3), 557-575.

Van Leeuwen, M. (2009, July). Clear vs. woolly language use in political speeches: The case of the controversial Dutch politician Geert Wilders. In *Annual Conference of the Poetics and Linguistics Association, July*.

Verba, S., Schlozman, K. L., & Brady, H. E. (1995). *Voice and equality: Civic voluntarism in American politics*. Harvard University Press.

Wang, C. H. (2013). Why do people vote? Rationality or emotion. *International Political Science Review*, *34*(5), 483-501.

Widmann, T. (2021). How emotional are populists really? Factors explaining emotional appeals in the communication of political parties. *Political Psychology*, *42*(1), 163-181.