FACULTY OF LAW, ECONOMICS AND FINANCE

CREA
Discussion
Paper
2010-22

Center for Research in Economic Analysis
University of Luxembourg

"The scale we use, the world we see": A contextual analyses of ethnocentric attitudes and extreme right voting in Belgium

available online : http://wwwfr.uni.lu/recherche/fdef/crea/publications2/discussion_papers/2010

Quentin David, University of Luxembourg
Jean-Benoît Pilet, Université Libre de Bruxelles
Gilles Van Hamme, Université Libre de Bruxelles

December, 2010

For editorial correspondence, please contact : elisa.ferreira@uni.lu

University of Luxembourg
Faculty of Law, Economics and Finance
162A, avenue de la Faïencerie
L-1511 Luxembourg

"The scale we use, the world we see":

A contextual analyses of ethnocentric attitudes and extreme right voting in Belgium

Quentin David[1], Jean-Benoit Pilet[2] and Gilles van Hamme[3]

December 2010

Abstract

Contextual analyses have received increasing interest as a way to understand electoral behaviors during the last decade. However, the growing interest in contextual analysis among political scientists is now limited by conceptual and methodological difficulties related to scale. Indeed, we show here that the scale we use might significantly change the results we get. Our central claim is therefore to plead in favor of a more careful reflection on scale in contextual analysis. This reflection on the impact of scale is made by applying two different methods to explain extreme right voting and ethnocentric attitudes. In the first, we define the context in which individuals are embedded through circles around their home while in the second, we try to capture the real environment of individuals by defining their proximity area, living pool, and employment pool. When applying contextual variables (share of migrants and economic context) to explain extreme right voting and ethnocentric attitudes, the intermediate scale – defined here as the municipality or radius of 4 to 8 km around one's residence – appears to be the most influential in both approaches compared either to closer neighborhood or larger levels. Our analysis also shows an interesting differential for the effect of contextual variables on ethnocentric attitudes and on extreme right voting, especially concerning the impact of urban versus rural context.

Introduction

In the last two decades one of the main transformations of national party systems across Europe is the emergence and success in many countries of a new family of political parties situated at the extreme right end of the political spectrum. The rise of parties such as the Front National in France, the FPÖ in Austria, the SVP in Switzerland, the FolkeParti in Denmark, the Lijst Pim Fortuyn in the Netherlands, or the Vlaams Blok/Belang in Belgium has garnered much attention within the political science community. It has been widely shown that these parties are not strictly the same; the label that is the most suitable to their core characteristics may even differ from anti-immigration parties (Fennema 1997) to populist radical right populist parties (Mudde 2007) or more simply extreme right parties (Hainsworth 2008). But they have much in common, including, following Mudde's definition, the same insistence on populism, authoritarianism, and nativism in their manifesto (Mudde 2007).

Attempts to understand this wave of success for parties on the far right have been burgeoning for about twenty years. Explorations of these parties range from works identifying the factors accounting for the decision to vote for the extreme right (Schain et al. 2002) to studies linking

[1] CREA, Université du Luxembourg, quentin.max.david@gmail.com
[2] CEVIPOL, Université Libre de Bruxelles, jpilet@ulb.ac.be
[3] IGEAT, Université Libre de Bruxelles, gvhamme@ulb.ac.be

the rise of the extreme right to structural changes in Western societies (Betz 1994). For some the presence and success of these parties is even a sign of the emergence of a new cleavage in the Rokkanian sense of the word (Kitschelt 1994, Kriesi et al. 2008).

In this paper, the focus is on contextual factors explaining the success of extreme right. While contextual analyses of the success of the extreme right have been popular in recent years (Coffe et al., 2007; Lubbers & Scheepers, 2000; Golder, 2003; Givens, 2002), they often pay too little attention to the scale at which contextual factors might play a role. We argue here that the lack of interest in this issue of scale might result in misleading conclusions on the impact of contextual variables.

The economic situation and the presence of migrants are the most frequent factors taken into consideration as contextual factors favoring the extreme right vote. But there are, we believe, often problems in the way they are integrated into the empirical analysis. First, due to problems of data availability, there are too few studies combining individual and contextual factors (Lubbers 2002). Second when the context is considered there is frequently a problem with scales (or levels[4] according to political scientists' terminology). The scales used for the contextual variables are chosen on the basis of what is available and not because they are the levels that make the most sense considering the nature of the variable (see for example Lubbers & Scheepers, 2000; Coffé et al. 2007). The lack of reflection on the scale of contextual effects might explain the contradictory results found in the literature, as is indeed the case when studying the impact of (contextual) unemployment or immigration on extreme right voting.

In this article we address these two problems. First, individual and contextual factors are combined to understand the vote for the extreme right. Second, the influence of contextual factors are tested at different scales, from the direct neighborhood of voters to broader areas, in order to capture more precisely if and when the areas where the voters live and work affect their likelihood to vote for the extreme right.

Another element of originality of this paper is that we consider not only the impact of the context on the decision to vote for the extreme right. We also question how the context affects (or does not affect) the political attitudes that are most often associated with a vote for the extreme right. In particular, we examine whether high levels of unemployment and the presence of migrants affect the attitudes of voters towards migrants, and we identify the scales at which these contextual effects take place.

These questions are addressed using data from the PartiRep Election Study[5] on the 2009 regional elections in Belgium. We use two dependent variables: the intention to vote for the extreme right (Vlaams Belang and FN)[6] and the attitudes towards immigration. For the

[4] Scholars often distinguish between micro (individual), macro (national) and meso (infra-national) level. Such distinctions are, however, we argue, insufficient to apprehend the complexity of the question of scales.

[5] http://www.partirep.eu/

[6] Our dependent variable will be, as mentioned below, the intention to vote for the extreme right. It is not only an actual vote for the extreme right. Indeed, we have also included respondents that have declared during the

independent variables we combine the background characteristics of individuals (age, education, employment, and so on) with information on the economic situation and the share of migrants measured at different scales.

The results are clear. First, the choice of scale makes a difference; the significance and the impact of contextual factors change drastically when measured at different scales. Second, the contextual variables show the most significant effects at intermediate scales (identified as the individuals' living pool), rather than at the district (close neighborhood) or at the city/regional (employment pool) scale. We also show that the impact of contextual factors on ethnocentric attitudes and extreme right voting differs slightly.

The article is structured in the following way. After a brief review of the vast literature on the individual and contextual factors explaining extreme right voting (Section 1), we introduce the question of scale in contextual analysis of voting, with a focus on the extreme right (Section 2). On this theoretical base, we propose an original methodology to understand the impact of contextual factors on extreme right voting at different scales (Section 3). The results of this approach are analyzed in Section 4. We conclude in Section 5.

1. Theoretical framework: individual and contextual explanations of the extreme right vote

Since the 1980s and the early success of a few extreme right parties such as Le Pen's Front National in France, scholars have tried to uncover what drives their voters (Mayer 1987). Stimulated by the success of extreme right parties in more and more countries across Europe, this seminal work has been followed by many other publications (Betz & Immerfall 1998, Kitschelt & Mc Gann, 1997, Eatwell & Mudde 2004, Ignazi 1992, Norris 2005). The general idea is that the success of these parties within the electorate can be explained by the combination of supply-side and demand-side factors. Supply-side explanations focus on the impact of the political and electoral opportunity structure made up of the institutional context, the characteristics of the extreme right party itself, and of its competitors (van der Brug, Fennema & Tillie 2005). Demand-side explanations study the electorate and its appetite for anti-immigrant parties.

Here the focus is on demand-side variables. Scholars within this perspective tend to concentrate on two types of explanations: the individual characteristics of voters and the context in which they live. For the first component, the factor that has been studied most intensively is the economic situation of the voter. Unemployment, low income, a lower social class but also lower levels of education appear to increase the probability to vote for the extreme right (Givens 2002). The rationale behind these observations is to be found in Betz's modernization thesis (Betz 1994). In periods of economic recession the citizens who have lost their jobs or who are in bad economic situations feel threatened by societal changes. In particular they tend to believe that migrants are direct competitors for the few jobs that are on

campaign their intention to vote for the extreme right. For the text to be easier to read we later use the formula 'extreme right vote' but the reader must keep in mind our dependent variable.

the market and also for the social benefits provided by the State. They are therefore inclined to opt for extreme right parties that propose easy and populist solutions and present migrants as the source of all their problems (Eatwell 2003). The theoretical argument is solid but its empirical demonstration is not straightforward. Several publications have shown that the support for the far right goes beyond the lower class (Lubbers, Scheepers and Billiet 2000).

Yet not only the economic situation of the individuals has been shown to be important. Their social anchorage within society has also been shown to be significant. The processes of individualization and of demassification (Dalton 1984, Flanagan 1987) have left voters isolated. Their social capital has faded away in two respects (Putnam 2000). First, the classical intermediary social segments in which citizens were encapsulated like pillars or working-class organizations have faded away (Swyngedouw 1998). Secondly, even the closer ties like the family or the local community have become weaker. And voters who are socially more isolated have been shown to be more inclined to opt for the extreme right and for its 'easy' solutions (Ignazi 1999).

Next to the individual characteristics of the voters, demand-side explanations have also paid growing attention to the context in which the voter operates. The underlying hypothesis is that in some contexts, voters would be more inclined to support the extreme right. Firstly, the economic context has been shown to have an impact. This argument follows the same logic as for the individual economic situation of the voter. In a bad economic context with a high level of unemployment, voters are more pessimistic about their future and more inclined to opt for the extreme right (Anderson 1996). A second contextual element that has gained scholarly attention is the presence of immigrants or the rapid rise in the number of migrants in the country (Golder 2003). Some scholars have even tried to combine the two contextual factors. Dulmer and Klein (2005) for example have shown that the presence of immigrants might have different impacts according to the level of qualification the voters' and, we may add, to the level of unemployment. Immigrants are perceived as a threat only in a bad economic context and to the most fragile populations.

But what is particularly interesting is that scholarly work on the effect of the context on the performance of the extreme right has shown very contradictory results. Concerning for example the influence of the economic conditions, authors like Jackman and Volpert (1996) find a positive relation between unemployment and the attractiveness of the extreme right, while other authors see no relation (Chapin 1997) or even a negative effect (Knigge 1998). We argue here that this may be due, among other factors, to two problems.

First of all, few studies combine individual and contextual explanations of extreme right voting. On the one hand most studies of the extreme right vote use individual data from electoral surveys that do not take the context, where the respondent lives, into consideration. On the other hand, papers trying to uncover the effect of contextual variables do not have at their disposal information on the individual voters. The problem is that if one wants to really capture the contextual effect of immigration and unemployment, it is necessary to control for voters' individual characteristics. For example, if one shows that a high level of unemployment is associated with good performance of the extreme right, is it because

unemployed voters opt for the extreme right, or because voters who have a job in areas where unemployment is high may feel insecure and are therefore seduced by the discourse of the extreme right? Following the same logic, when Kestilä and Söderlund (2007) show that immigration has no impact on the score of the extreme right in France, is it because living in an area where 25 percent of the population are migrants does not affect the propensity to vote for the extreme right, or because many voters in the district are migrants and are therefore less likely to vote for *Front National* (Arzheimer & Carter 2009: 342)? In order to answer these questions it is necessary to study the influence of the context and to control for individual characteristics of voters whenever possible (see Lubbers et al. 2002).

Secondly there is, we argue, an insufficient reflection about the appropriate scale (or level) of analysis. Many authors use one single scale for all contextual variables, be it the national, regional, or local level. And the choice of scale is very much related to the issue of data availability (see for example Coffe et al., 2007; Kestilä & Söderlund, 2007; Lubbers & Scheepers, 2000). Scholars try to take the best from what they have and therefore look at contextual factors at the national, subnational, or local level, depending on what is available. Political scientists opting for cross-national comparisons look most of the time at unemployment and immigration at the national level, while some others compare the results of the extreme right at a lower level, be it subnational or local. But to move research one step further it is important, we argue, to have a more in-depth reflection on the issue of scales. The problem was already raised in Dulmer and Klein's (2005) critique of Lubbers and Scheepers' (2000) analysis of the German extreme right-wing vote. According to Dulmer and Klein "it is questionable whether the macro units (e.g. the Landers) chosen by Lubbers and Scheepers are appropriate. The Bundesländer are too heterogeneous to reflect everyday experiences of citizens – much smaller units are needed." (Dulmer & Klein, 2005: 246). Clearly the choice of scale is to be discussed. Examples of more in-depth reflections on the issue of scale can be found in publications by geographers who are logically more concerned with the scale problem and have produced interesting findings on specific spatial mechanisms such as the spatial diffusion of the extreme right vote (Troufleau, 1995) or the impact of the distance to the city (Buleon et al., 2003). However, these studies do not control for individual characteristics.

In this article, we propose to deepen the thought about the relevant scale for analyzing the impact of contextual variables. It seems to us that the growing interest in contextual analysis (Franklin, 2002) among political scientists is now limited by conceptual and methodological difficulties related to scale. While it is obvious from the literature that among political scientists there is a growing consciousness about the necessity to better understand the scale at which contextual analysis should be done (Bowyer, 2008; Dulmer & Klein, 2005), few studies have explicitly raised the question and none has applied it to extreme right-wing voting. So, our analysis is mobilizing the same theoretical model and the same usual variables such as the presence of immigrants and the economic situation, but we intend here to make progress in the way individual and contextual variables should be combined, considering the question of scale.

Additionally we are also going to explore the relations between contextual factors and attitudes associated with the extreme right vote (see e.g. Billiet & De Witte 1995). All the above-mentioned studies start from the assumption that a bad economic context and large number of migrants increase the likelihood for a citizen to vote for the extreme right. But none tries to see if it is only the act of voting that is modified, or if the political opinions and attitudes are also affected. Van der Brug et al. (2000) for instance, have demonstrated that the extreme right vote was strongly associated with a more negative attitude toward migrants than a vote for other parties. But what happens in a context of high unemployment and strong immigration? Do voters with an already existing negative attitude toward migrants opt more than before to vote for the extreme right? Or does such a context increase the proportion of citizens with a negative attitude toward migrants - a change that would lead to a rise of the extreme right vote? We are trying to gather some first elements to answer these questions by looking not only at the impact of the context at various scales on the extreme right vote but also at the influence of the context on the attitudes towards immigration.

2. Thinking about the relevant scale for contextual analysis of the extreme right

In different studies, Johnston and his collaborators have proposed original solutions to solve the question of scale to assess the impact of the context on electoral behavior (e.g. Johnston et al., 2005). However, they never apply their methods to the extreme right, notably because British inquiries have few extreme right voters. By studying the impact of the feel-good factor on electoral behavior, Tunstall et al. (2000) have also underlined that different scales may show different impacts for the same variable. In particular, they have shown that subjective feeling and the real level of unemployment had significant impacts on voting at both the local and regional scales. In an article in 2005, Johnston and his collaborators have gone a step further to understand the relevant scale for contextual effects on electoral behavior. They propose to study each contextual variable for its effect on individuals at different distances around their home residence. Their logic is to work in circles, from the most local scale (250 m). to larger ones. And they show that effects can be different at different scales. In particular they found that, when controlled for individual characteristics, regional context, as well as local (250 m.) and place (2000 m.) contexts have significant impacts on electoral choices. For both scales, socio-economic levels and ethnicity were found to be the most significant contextual variables explaining the choice of labor (or Liberal) vs. conservative.

This approach certainly allows assessing the question of scale in a progressive way from very close to larger areas around the subject's home. It offers a great advantage since spatial processes are complex, diffuse, and difficult to capture at one single scale. And we will therefore apply Johnston's approach to our analysis of extreme right voting in Belgium. Yet we believe that this method has also some limits. In particular it considers the space around a residence to be isotropic, which is obviously not the case. What is to be found 1 km west of your home residence and 1 km north, for example is not the same. This is why we will complement this approach by using another one that takes into consideration the polarization

of space. For example, when one lives near a big city, the probability of going to a city center is much higher than the probability of going to any other place that is an equal distance from home.

Yet the choice of scale is not only a matter of methodology. It is to be linked with a deeper theoretical thinking on what would be the relevant scale for the two contextual variables included in our analysis: the economic situation and the presence of immigrants. At what level/scale would unemployment and immigration affect the perception of voters and their political attitudes and behaviors? Regarding the share of immigrants, there are different views about what the relevant scale is. The most natural view is that voters are affected by what they see in their everyday life, in their direct neighborhood. Therefore, all things being equal, the higher the presence of immigrants at the very local scale, the more impact it would have on the vote. However, such a positive relationship has mainly been observed at large scale (Lubbers & Scheepers, 2000, 2002; Givens, 2002). Other authors have argued that the presence of migrants can be influential through different and more complex spatial mechanisms. In particular in France some authors have underlined an indirect effect of the presence of immigrants, what is called the 'halo effect' (*effet de halo*). The idea is that the extreme right performs best in areas located next to sectors where there are lots of immigrants and not within these sectors (Etchebarne, 1989; Mayer, 1987; Bowyer, 2008). The explanations are twofold. First, people living in areas with lots of immigrants are familiar with their presence and are therefore less frightened by cultural differences. Second, it is often the case that neighborhoods near high immigrant concentrations are low middle class districts where residents are afraid of losing their social position[7].

When it comes to the impact of the economic context, the effects may play at two different levels/scales. First, the very local situation can have an effect. Deprivation of neighborhoods may increase the vote for extreme right. This effect may be captured through many socio-economic indicators (housing, incomes, unemployment rate etc…)[8]. But the economic context also plays a role at another level: the employment pool. Voters are more likely to be attracted by the discourse of the extreme right depicting immigrants as job stealers when they have difficulties in finding a job. And the relevant level in that respect is the employment pool, not the direct neighborhood. This means that a very high local unemployment rate is indicative of a deprived neighborhood but not by itself of a lower probability of finding jobs, because labor pools function at a much larger scale.

However, contextual analyses have also underlined the urban character of the extreme right voting. For example, early studies on the French *Front National* underline the opposition between the old urban and industrial France (north from a Le Havre-Valence-Perpignan diagonal), where the *FN* got high scores, and the less industrial France south of this line, where the extreme right only had local successes (Mayer, 2002b). At a more refined scale, more recent studies have put the emphasis on the high scores for the *FN* in the deprived

[7] This is typically the situation in some French suburbs, where middle class suburbia near high concentrations of immigrants in social housing show high scores for the French National Front.

[8] However, it is delicate to multiply these indicators in the analysis because, as suggested by Bowyer (2008), they show high correlations between each other.

suburban areas rather than inner cities (Buléon et al., 2003). While it would be difficult to argue that urban life by itself favors extreme right voting, one must be very careful when studying the impact of unemployment or of the presence of foreigners, because they might be associated with urban contexts as many other aspects of cultural and socio-economic life are.

For all these reasons we believe that there exist solid grounds to call for a more careful reflection on scale in studying the impact of the context on both extreme right voting and ethnocentric attitudes. And it is what we propose in this article by combining Johnston's isotropic approach and our non-isotropic method.

3. Database and methodology

In this section, we first present the database and the variables that we use in our empirical analysis of the impact of the context on individual's attitudes and voting behavior. Second, we describe the steps through which we try to identify the pertinent scales useful to study the extreme right voting and anti-immigrant attitudes as well as the estimation techniques.

3.1. Database and Variables

To carry out our empirical analysis, we use data from the PartiRep Election Study (http://www.partirep.eu/). This voter survey was conducted in the two largest Belgian regions – Flanders and Wallonia – on the occasion of the 2009 Regional Elections. It is a panel survey organized in three waves: *Wave 1* took place a couple of weeks before the election; it collected information on individuals' characteristics, attitudes, and voting expectations; *wave 2* took place a couple of days before the election and focused on voting expectations and the use of the press during the campaign; in *wave 3*, which took place a couple of days after the election, individuals were asked to report their vote.[9] 2331 voters answered at least to wave 1. Each individual has been *geolocalized* in order to allocate to him the contextual rates of unemployment and the share of migrants. Local rates of unemployment come from the 2001 census data and the share of migrants come from the National Register in 2006.

We use two dependent variables: the intention to vote for the extreme right and the attitudes most often associated to extreme right voting, that is, anti-immigrant attitudes. Several studies have shown (Billiet, 1998; van der Brug et al., 2000; Mayer, 2002a) a strong relationship between an individual's attitude toward immigrants and extreme right voting. These attitudes are also to be understood as good indicators of what is by some authors identified as a new cleavage founded on "cultural issues" described by Flanagan (1987) or Kitschelt and Mc Gann (1997) as opposing a *new (libertarian) left* and an *authoritarian right* or by French political scientists as a Universalist vs. ethnocentrist opposition (Chiche *et al.*, 2002).

As a first step, we estimate the effect of our contextual measures on a dependent variable called "ethnocentrism." It is a measure of individual positioning on a scale combining three attitudes toward immigrants. This measure is obtained from three different statements present

[9] A more careful presentation of this database as well as a variable description is provided in the appendix.

in the survey for which individuals are asked to pick a position on a discrete scale going from 1 to 5 (1 means that individual fully disagrees and 5 indicates that s/he fully agrees with that statement). Table 1 summarizes the factor analysis applied on answers provided by individuals to build our index of "ethnocentrism." According to the loadings, higher scores are associated with more negative attitudes towards immigrants.

Table 1. Factor analysis of our measure of "ethnocentrism"

Questions in the survey (answers on a scale going from 1 to 5)	**Loadings**
• Belgium must close the doors of asylum	0.6327
• It is normal that strangers living in Belgium for more than five years can vote at the municipal elections	-0.5897
• Immigration contributes to the wealth of our country	-0.6629
Eigenvalue associated with the first factor	1.18762
Eigenvalue associated with the second factor	-0.13835

Our second dependent variable is called "XD." It is a dummy equal to one if the individual has declared to be willing to vote for an extreme right party at any one of the three waves of the survey, even if s/he does not do it at the time of election. There are several reasons to justify our choice to use this measure and not the actual vote for extreme right parties measured in wave 3 (post-electoral) of the survey. First, it increases a bit the N for our study and, more importantly, it allows us to integrate both voters and intentional voters of the extreme right in both Wallonia (Front National) and Flanders (Vlaams Belang). Second, even if our choice can be criticized, since an intention to vote for a party is somewhat different from an actual vote for a party, we know from previous studies that voting for extreme parties in general (Breen 2000) and for the extreme right more specifically is underdeclared and therefore underestimated by electoral surveys. In the Belgian case, previous studies using other electoral surveys have underlined the problem for the extreme right (Aish-Van Vaerenbergh and Swyngedouw 1994; Frognier and De Winter 2007). This is a general problem with surveys – what Noelle-Neumann (1984) refers to as the spiral of silence. Respondents are reluctant to admit a political choice that is socially condemned. Therefore, declaring that you have the intention to vote for the extreme right is already a strong statement and we consider that respondents declaring such a voting intention can be taken into consideration for an analysis of the influence of the context on the propensity to vote for the extreme right. Third, the analysis of switching voters between the three waves of PartiRep

Electoral Survey show that Vlaams Belang is the party that kept most of its voters from wave 1 (pre-electoral) when we look at the actual vote in wave 3 (Walgrave et al., 2010). Fourth, using the real vote instead of the voting intention does not change our main results, though their degree of significance appears to be lower.

For our independent variables we combine the standard individual characteristics with contextual factors. Our individual control variables are similar to those used in earlier studies: age, sex, diploma (lower secondary school, upper secondary school or higher education with respect to less than secondary school) and socio-professional status. We also control for the region of residence (Wallonia or Flanders), the language used at home (French or Flemish) and use dummies to control for the population density. We consider three levels of population densities: urban (more than 600 inhabitants per square kilometer), intermediate (between 200 and 600) and rural (less than 200). Finally, we control for the presence of Belgians having a foreign origin in the survey, by using a dummy equal to one for people who speak Arabic, Turkish, or Berber at home.[10] For the context we look at the influence of the share of migrants and of the economic situation at different scales. For the presence of migrants, we focus on the share of migrants from Turkey and Maghreb, since Meuleman and Billiet (2003) have shown that in the Belgian case the presence of migrants from Islamic countries was more a source of political reactions among citizens than the presence of other groups of migrants. For the economic context we use the rate of unemployment. We consider these two contextual variables at the different scales that are studied in the next sections.

3.2. Operationalization: standard vs. multilevel analysis

Regarding the methodological issue of scale, we build our analysis on Johnston's idea of assessing the impact of contextual factors at different scales on the two dependent variables described above. We proceed in two steps. First we explore "the pertinent scale," or how the scale of contextual variables can make a difference in the impact of unemployment and migration on voting. For each individual, we estimate the characteristics of his environment at different distances from home (circle of 500 m, 1000 m, 2000 m….)[11]. By controlling for individual characteristics, we assess the impact of the context at different scales. The goal is to have a first look at what range of scales are to be taken into consideration for the study of the extreme right vote. Would unemployment and migration have an effect at the very local level - where the voter lives (circles of 500 m, 1000 m)? At a medium-range level – where the voters shop, work or study (circles of 2000 m, 4000 m, 8000 m)? Or at a large scale – where the voter goes occasionally (circles of 16,000 m, 32,000 m)? The goal at this first stage of analysis is exploratory but also aims to show that the scale chosen makes a difference.

[10] We must say that we have no observations of individuals speaking one of these languages and voting for an extreme right party. This leads the statistical program (Stata 11) to remove these individuals when estimating the probability to vote for an extreme right party. Nevertheless, we believe that it is important to keep this variable in the analysis, otherwise, we would miss an explanatory variable. We also tested the same regressions when removing that variable. Removing it tends to reinforce our claims.

[11] Each individual has been precisely located. The individual's context is defined as the average characteristics of all statistical sectors (the smallest Belgian statistical unit which is around 500 inhabitants on average) whose center is included in a circle of different radius around the respondent's home.

However, as mentioned in section 2, this method raises problems since the space is considered as isotropic around the respondent's home, which is obviously not the case. This is why, in a second step, we work on the question of scales in another way that takes into account the polarization of space in terms of services, employment, etc. Hence, we define the individual's context according to the proximity pool, the "living pool" and the employment pool. The proximity area is the district you live in, approximated by the statistical sector. The living pool corresponds to the pool where children go to school or where you go shopping for basic needs and is well approximated by the municipality[12]. The employment pool is in theory the relevant scale to thing about the impact of the local economic context. Hence, these areas are used to evaluate the impact of our two contextual variables on extreme right voting and on attitudes towards immigration while controlled for individual characteristics of the voters.

Table 2. The levels used in the "non isotropic" approach

Level/Scale	**Denomination**	**Definition**
Local	Proximity pool / close neighborhood	Statistical district
Intermediate	Living pool	Municipality
Large	Employment pool	All municipalities sending the most commuters to a large employment centre[2]

[2] a large employment centre is defined according to the ratio between employment at working place and residence place (>1.25) or the total employment (>30000)

Before turning to the presentation of our results another question has to be raised. What is the best estimation technique to achieve our goals (i.e. find the pertinent scale and use that scale to study the effect of unemployment and migrations on ethnocentrism and extreme right voting)? When combining variables at different levels (in our case, individual and contextual), we can either use the standard estimation techniques (OLS or logit estimations for, respectively, continuous or binary dependent variables) and correct the standard error by clustering them at the appropriate level or use a multilevel analysis. When using the "standard techniques," we implicitly assume that the context affects individuals as if these contextual characteristics were individual. The contextual specificity is only considered when computing the robust standard errors. The idea of clustering the standard error is to suppose that the errors associated with individuals belonging to a same group (cluster) might be correlated within this group, which must be corrected. When using multilevel estimations, we allow the estimated coefficients themselves (not only their standard errors) to be affected by the

[12] Municipalities are big in Belgium and have been precisely created around centers. Of course, in rural areas, school or retail trade polarization might be larger than one municipality, but still the municipality represents a good proxy for the living pool that we try to capture here.

multilevel structure of the data. The idea is to consider that in addition to the usually estimated fixed effects (those that are the same for every individual across the different levels), there might be random effects at the different considered group levels. For instance, it might be the case that the impact of being unemployed is not the same in two different municipalities. The multilevel analysis would allow accounting for this considering that the effect of the unemployment status might be random across municipalities. It is worth saying that previous studies of extreme right voting using multilevel analysis generally restrained their analysis of these random effects (at different levels) to the constant term (see for example Lubbers & Scheepers, 2000; Dülmer & Klein, 2005). In these cases, the multilevel analysis only allows checking if there is a difference in the average probability to vote for a studied party when controlling for individual and contextual characteristics and no other random effects are taken into consideration.

As stated before, in our first set of analysis (presented in Section 4.1.) we assess the effect of the environment of individuals at different scales. Since individuals are located at different places, there is no mean to consider two different levels, because every individual is associated with his own environment, which is different for most of them (only individuals living very close to each other might have the same environment). The only available estimation techniques are therefore the "standard ones." To ensure that we correct the standard errors properly, we decided to cluster them at the statistical district level (it is quite likely that individuals living in the same statistical district face the same context). For our second set of analysis, we consider different levels (statistical districts, municipalities, and employment pool). The context is therefore the same for different groups of individuals and both techniques might be used to identify the effects of our contextual variables on attitudes and vote.

There are pros and cons for both techniques and the pros of one are generally the cons of the other: using the "standard techniques" has the advantage of being more easily comparable to the results presented in the section "pertinent scale," as the techniques are the same even if the considered environment differs. It is also easier to combine different scales to identify the most relevant one. On the other side, it does not allow accounting for a random effect at the different levels, and results are not comparable to some previous studies, mentioned before; this pleads in favor of multilevel analysis. Last, but not least, the use of a multilevel analysis preferably requires ex-ante assumptions on the pertinent scales and the variables that should be characterized by a random effect at the different scales. This is not easily compatible with our naïve approach, precisely intending to identify these pertinent scales. Considering all these arguments, we decided to keep the "standard estimations" in the core of the text and to present the multilevel analysis whose results are, nevertheless, very similar in the appendix. We will only stress some interesting results from the multilevel analysis in Section 4.2., but do not present the whole identification strategy of these estimations.

4. **Empirical results**

4.1. The pertinent scale

Our first goal is to identify the "pertinent scale" for our analysis. What we call the "pertinent scale" is the level at which our contextual measures of the neighborhood composition (we specifically focus on the rate of unemployment and the share of migrants from Turkey or Maghreb) play the most significant role in someone's position on, either, our ethnocentrism scale or the probability to declare to be willing (at some point) to vote for an extreme right party.

To achieve this goal, we regress one of these two dependent variables on our contextual measures (share of migrants and rate of unemployment) computed at different radii: within a 0.5, 1, 2, 4, 8, 16 or 32 km radius. As said earlier, we also control for the individual characteristics used in similar studies and the population density is considered at a 4 km radius.

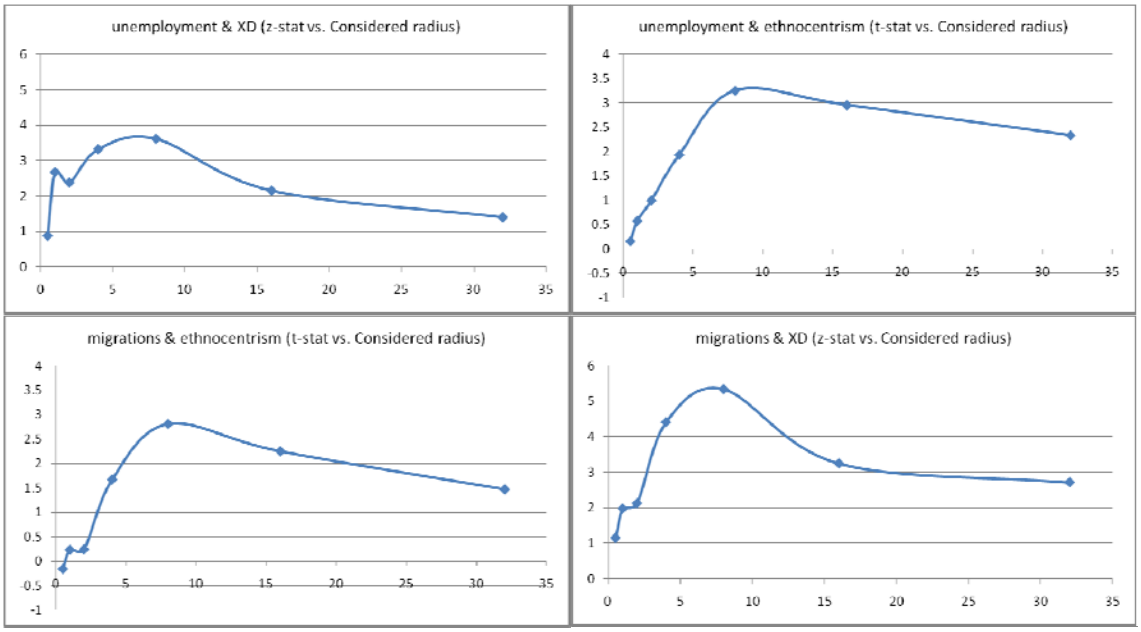
We do not present here the whole tables of results (though it is available upon request) but focus on the significance of the impact of our contextual variables on attitude and extreme-right voting, when controlling for individual characteristics and the regional and urban context. Hence, to illustrate our findings, we plot the t-statistics (for OLS estimations) or the z-statistics (for the logit estimations) for the two variables of interest and for every different considered radius in Figure 1. One should remember that these statistics are obtained from the following formula

$$t \text{ (or z)} = \tilde{\beta} / SE$$

where $\tilde{\beta}$ is the estimated coefficient and SE is its standard error. In our case, we compute the robust standard error by clustering the residuals at the statistical sector level. Remember that the estimated coefficients are assumed to be significant at 5% if their associated statistics are outside the bounds (-1.96, 1.96) and at 1% if it is outside the bounds (-2.576, 2.576).

A first striking result relates to the fact that the radius yielding the most significant impact is always 8 km and that smaller radii are generally less significant in explaining extreme right voting. Also, it is interesting to note the very progressive and continuous impact of our explanatory variables according to scale, confirming the diffuse character of contextual effects which are not easily reduced to one single scale. This result cannot only be explained by the fact that bigger radii include contextual effects of smaller ones, notably because when the radius is doubled, the contextual area is four times bigger.

Figure 1. t (or z) statistic for our contextual estimations at different scales (0.5 to 32 km).



Control variables used in those estimations: region, age, language (French or Flemish and a dummy equal to one if one of the languages used at home is Turkish, Arabic or Berber), occupational status (blue or white collar, self employed, not active or unemployed), diploma.

4.2. Considering a non-isotropic space

If the previous section allows us to improve our understanding of the scales that have to be taken into consideration when studying the impact of environment on voting behavior and related attitudes, it remains unsatisfactory. Space can obviously not be considered as isotropic and we must refine our analysis to account for the fact that one individual's environment has to be related to his daily moves (or to the places s/he really sees or knows). We will thus take three alternative scales into consideration: the statistical district, the municipalities and the employment pools. Our contextual explanatory variables (rate of unemployment and share of migrants) are thus computed at each of these scales and we use three dummies (rural, intermediate, and urban) to control for urbanization at the municipality scale. The individual control variables are the same as those described in the previous section. As discussed in Section 3, we present logit estimation with robust standard errors clustered at, respectively, the statistical district, the municipality and the employment pool levels, while an equivalent multilevel analysis is proposed in the appendix.

The results presented in tables 2 and 3 (and 4 and 5, in the appendix) generally confirm the relevance of intermediate scales (municipalities here, 4000 to 8000 meters radius in the previous analysis), especially when exploring the impact of the share of migrants. This suggests that the presence of migrants has more impact on the surrounding areas than within the immediate vicinity of the voter. This result holds for both attitudes and extreme right voting which is, of course, an important result. Focusing on unemployment, it appears that the

pertinent scale seems not to be the same in explaining “ethnocentric attitudes” in comparison to the voting behavior. Indeed, the local rate of unemployment seems to be mainly related to ethnocentric attitudes at the employment pool, in line with our theoretical reflection about the potential impact of this variable. However, when explaining the probability to vote for an extreme right party, the municipality – that is, the living pool – is the most significant scale. This difference of scale concerning the impact of unemployment on the two dependent variables is true among the different estimations techniques (logit or multilevel) but, we must confess, are not easy to interpret. Finally, we must underline the important role of the urban/rural context to explain the extreme right vote, while it does not significantly affect the anti-immigrant attitudes. In other words, if the rural context seems to be an obstacle for extreme right voting, it is not the case for anti-immigrant attitudes.

Finally, it is worth saying that the variance decomposition carried out in the multilevel analysis presented in the appendix shows that if the variance of the intercepts computed at different levels is significant when explaining attitudes (it is never the case for extreme right voting), the implementation of such a multilevel analysis does not affect qualitatively our results. The best scales remain the same; the estimated coefficients and their significance remain very similar.

[INSERT TABLE 3 HERE]

(Unemployment, migrations and attitudes)

[INSERT TABLE 4 HERE]

(Unemployment and extreme right voting behavior)

5. Conclusions

In recent works various scholars have underlined the fact that studies may produce different results for the same research questions simply because of the data used. One example is provided by Teorell and Lindstedt (2010) who analyzed the impact of electoral systems on (1) party systems and (2) corruption with four different datasets. And there were significant differences in the results according to the dataset used. As perfectly stated by Mudde and Schedler: "the numbers we use, the world we see"[13].

Their claim finds echo in our article "the scale we use, the world we see." Going through the many publications on the impact of contextual factors – mainly immigration and unemployment – on extreme right performance, it quickly appeared that there was no consensus on their actual effect. But we believe that part of the explanation is to be found in methodological problems. First, as already underlined by Arzheimer and Carter (2009) some pieces of research do not fulfill the requirement of combining contextual and individual variables in their analysis. And more importantly there is an insufficient reflection on the issue of scale.

Most authors use the contextual variables that are available and do not deepen the reflection on what scale would be the most appropriate for the purpose of their study. But scale (or level) does matter.

In this article we have tried to measure the effect of contextual unemployment and immigration on both ethnocentric attitudes and extreme right voting in Belgium at different scales. The results are clear: there are strong differences in the impact that contextual factors have, according to the scale used. For instance our results show no significant impact of immigration and unemployment at the very local scales, very significant effects at intermediate scales and diminishing impact at larger scales. Once again, scale does matter.

In our article we have used two methods to deal with the issue of scale. The first one is taken from Johnston et al. (2005) and had already been raised earlier by Tunstall et al. (2000) but was never applied for the extreme right vote. They propose to test the effect of contextual factors at different scales, by defining the context through circles around home, from very small to larger radii. This approach is appropriate to show in a systematic and continuous way the impact of scale on the relevance of contextual variables, which is useful considering that spatial processes are diffuse and complex. But its weakness is that it considers the space to be isotropic.

Alternatively we have proposed our own non-isotropic method that takes into account the polarization of space by testing the influence of contextual factors at three levels: the proximity pool (close neighborhood), the living pool, and the employment pool. And here again the results at different scales were significantly different. Another advantage of the second method is that it allows using not only standard estimation techniques (OLS, logit) but

[13] See the workshop they organized at the 2008 ECPR Joint Sessions of Workshops in Rennes (France).

also multilevel analysis. The latter is possible because some individuals share the same context while with the first approach the context is somehow specific to each individual.

Finally, it should be noted that this article does not only produce clear findings for the methodological issue of scale. It also provides interesting insights on the impact of contextual variables themselves.

First, at one level or another, the two contextual variables taken into consideration – immigration and unemployment – do have a positive impact on attitudes towards immigrants as well on the extreme right voting. This is an important result because the impact of contextual unemployment on extreme right voting is controversial in the literature. However, this effect is only significant at certain scales.

Second, our results show that intermediary scale (4-8 km radius around home or municipality) is the most relevant in nearly all analyses. It is true that circles around one's home residence to evaluate the context might be criticized to prove such an assertion: it supposes an isotropic space and that the larger the radius, the more homogeneous the context around home between individuals. However, the relevance of intermediate scale is confirmed when considering the polarization of space around home: living pool (rather than district or employment pool) – approximated through municipality – is the most significant scale for explaining extreme right voting through unemployment rates and the share of migrants. This result appears even more clearly when scales are combined in the analysis.

Third, looking at the impact of the presence of immigrants, results confirm the importance of a more powerful contextual impact in the surrounding areas than in the district of residence. This is in line with the 'halo effect' (*effet de halo*) identified in the literature on the French National Front but also suggested by Bowyer (2008) in the British context. The idea behind this effect is that very frequent contacts leading to a concrete knowledge of foreigners might impede an anti-immigrant attitude while more occasional (but not exceptional) contacts might reinforce usual fears and *clichés* often associated with foreign populations.

Finally, the impact of rural/urban context proves to be very different for explaining anti-immigrant attitudes and extreme right voting: a rural context very significantly decreases the propensity of voting for the extreme right, while it has no impact on anti-immigrant attitudes (Van Hamme, 2008). It might be that in urban contexts, anti-immigrant attitudes more often result in extreme right voting than in more peripheral/rural contexts. In other words, rural "ethnocentric" populations do not translate this attitude into an extreme right vote but opt for more traditional voting. This might be explained by the higher power of traditional intermediary strata – for example related to Catholic networks – in which individuals are encapsulated in rural areas (David and Van Hamme, 2010).

References

Aish-Van Vaerenbergh A-M. & Swyngedouw, M. (1994). Stabilité et instabilité du vote en Wallonie: désalignement et réalignement des électeurs. In A-P. Frognier & A-M. Aish-Van Vaerenbergh (eds.), *Elections. La fêlure*. Brussels: De Boeck, pp.61-760.

Anderson, C.J. (1996). Economics, politics, and foreigners: populist party support in Denmark and Norway. *Electoral Studies* 15 (4): 497-511.

Arzheimer K. & Carter, E. (2009). How (not) to operationalize subnational political opportunity structures: a critique of Kestilä and Söderlund's study of regional elections. *European Journal of Political Research* 48 (3): 335-358.

Betz, H-G. (1994). *Radical Right-Wing Populism in Western Europe*. Basingstoke: Macmillan.

Betz, H-G. & Immerfall, S. (eds.) (1998). *The new politics of the right: Neo-populist parties and movements in established democracies*. Basingstoke: Macmillan.

Breen, R. (2000). Why is support for extreme parties underestimated by surveys? A latent class analysis. *British Journal of Political Science* 30 (2): 375-382.

Billiet, J. (1998). Qui vote pour le Vlaams Blok ? In P. Delwit, J-M. De Waele & A. Rea (eds.), *L'extrême droite en France et en Belgique*, Brussels: Editions Complexe.

Billiet, J. & De Witte, H. (1995). Attitudinal dispositions to vote for the extreme right-wing. *European Journal of Political Research* 27 (2): 181–202.

Bowyer, B. (2008). Local context and extreme right support in England: The British National Party in the 2002 and 2003 local elections. *Electoral Studies* 27 (4): 611-620.

Buléon, P., Fourquet, J. & Ravenel, L. (2003). Vote et gradient d'urbanité : les nouveaux territoires des élections présidentielles de 2002. *Espaces, Population, Société*, 2003 (3), 469-482.

Chapin, W.D. (1997). Explaining the electoral success of the new right: the German case. *West European Politics* 20 (2): 53-73.

Chiche, J., Haegel, F. & Tiberj, V. (2002). La fragmentation partisane. In G. Grunberg, N. Mayer & P.M. Sniderman (eds.), *La démocratie à l'épreuve. Une nouvelle approche de l'opinion des Français*. Paris : Presse de Sciences Po, pp. 203-238.

Coffé H., Heyndels, B. & Vermeir, J. (2007). Fertile grounds for extreme right-wing parties: Explaining the Vlaams Blok's electoral success. *Electoral Studies*. 26 (1): 144-155.

Dalton, R.J. (1984). Cognitive mobilization and partisan dealignment in advanced industrial democracies. *The journal of politics* 46 (1): 264-284.

David, Q., Van Hamme, G. (2010). Pillars and Electoral Behavior in Belgium: The Neighborhood Effect Revisited. *CREA Discussion Paper* n° 2010-05.

Dulmer, H. & Klein, M. (2005). Extreme right-wing voting in Germany in a multilevel perspective: a rejoinder to Lubbers and Scheepers. *European Journal of Political Research*, 44 (2): 243-263

Eatwell, R. (2003) Ten Theories of the Extreme Right. In P. Merkl & L. Weinberg (eds.), *Right-Wing Extremism in the Twenty-First Century.* London: Frank Cass, pp. 47-73.

Eatwell, R. & Mudde, C. (eds.) (2004.) *Western Democracies and the New Extreme Right Challenge*. London: Routledge.

Etchebarne, S. (1989). Le FN dans le Nord ou les logiques d'une implantation électorale. In N. Mayer & P. Perrineau (eds.), *Le Front national à découvert*. Paris : Presses de la Fondation nationale de Sciences politiques, pp. 284-306

Fennema, M. (1997). Some conceptual issues and problems in the comparison of anti-immigration parties in Western Europe. *Party Politics* 3 (4): 473-492.

Flanagan S. (1987). Value changes in industrial societies. *American Political Science Review* 81 (4): 1303-9.

Franklin, M.N. (2002). The future of election studies. In M.N Franklin & C. Wlezien. *The Future of Election studies.* Boston: Mass. Pergamon.

Frognier, A-P. (2007). Les déterminants du vote (1999-2003). In A-P. Frognier, L. De Winter & P. Baudewijns (eds.), *Elections : le reflux ?* Brussels : De Boeck, pp. 33-50.

Givens, T.E. (2002). The role of socioeconomic variables in the success of radical right parties. In M. Schain, A.R. Zolberg & P. Hossay (eds.), *Shadows over Europe: the Development and Impact of the Extreme Right in Western Europe*. New York: Palgrave MacMillan, pp. 137–158.

Golder, M. (2003). Explaining variation in the success of extreme right wing parties in Western Europe. *Comparative Political Studies* 36 (4): 432-466.

Hainsworth, P. (2008). *The Extreme Right in Western Europe.* London: Routledge.

Ignazi, P. (1992). The silent counter revolution: Hypotheses on the emergence of the extreme right-wing parties in Europe. *European Journal of Political Research* 22 (1): 3–33.

Ignazi, P. (1999). Les partis d'extrême droite : les fruits inachevés de la société postindustrielle. In P. Perrineau (ed.), *Les croisés de la société fermée*. Paris : Cevipof.

Johnston R., Propper C., Burgess S., Sarker R., Bolster A. & Jones K. (2005). Spatial scale and the neighbourhood effect : Multinomial models of voting at two recent British general elections. *British Journal of Political Science* 35 (3): 487-514.

Jackman, R.W. & Volpert, K. (1996). Conditions favouring parties of the extreme right in Western Europe. *British Journal of Political Science* 26 (4): 501-521.

Kestilä, E. & Söderlund, P. (2007). Subnational political opportunity structures and the success of the radical right: Evidence from the March 2004 regional elections in France. *European Journal of Political Research*, 26 (4): 773-96.

Kitschelt, H. (1994). *The transformation of European social democracy*. Cambridge: Cambridge University Press.

Kitschelt, H. & Mc Gann, A.J. (1997). *The radical right in Western Europe, a comparative analysis*, Ann Arbor, MI: University of Michigan Press.

Knigge, P. (1998). The ecological correlates of right-wing extremism in Western Europe. *European Journal of Political Science* 34 (2): 249-279.

Kriesi, H., Grande, E., Lachat, R., Dolezal, M., Bornschier, S. & Frey, T. (2008). *West European Politics in the Age of Globalization*. Cambridge: Cambridge University Press.

Lubbers, M., Gijsberts, M. & Scheepers, P. (2002). Extreme Right-Wing Voting in Western-Europe. *European Journal of Political Research* 41 (3): 345-378.

Lubbers M. & Scheepers P. (2002). French Front National voting : a micro and macro perspective. *Ethnic and racial studies* 25 (1): 120-149.

Lubbers, M. & Scheepers, P. (2000). Individual and contextual characteristics of the German extreme right-wing vote in the 1990's: A test of complementary theories. *European Journal of Political Research* 38 (1): 63-94

Lubbers, M., Scheepers, P., Billiet J. (2000). Multilevel modeling of Vlaams blok voting: Individual and contextual characteristics of the Vlaams blok vote. *Acta Politica* 35 (4): 363-398

Mayer N. (1987). De Passy à Barbès. Deux visages du vote Le Pen à Paris. *Revue française de science politique*. 37 (6): 891-906.

Mayer, N., (2002a). *Ces Français qui votent Le Pen*. Paris : Flammarion.

Mayer, N. (2002b). Les hauts et les bas du vote Le Pen 2002. *Revue française de science politique* 52 (5-6): 505-520.

Meuleman, B. & Billiet, J. (2003). De houding van Vlamingen tegenover 'oude' en 'nieuwe' migranten: diffuus of specifiek? *Administratie Planning en Statistiek*. Brussels: Ministerie van de Vlaamse Gemeenschap, pp. 137-176.

Mudde, C. (2007). *Populist Radical Right Parties in Europe*, Cambridge: Cambridge University Press.

Noelle-Neumann, E. (1984). *The Spiral of Silence. Public Opinion-Our Social Skin*. Chicago: The University of Chicago Press.

Norris, P. (2005). *Radical Right: Voters and Parties in the Regulated Market*. Cambridge: Cambridge University Press.

Putnam, R. (2000). *Bowling Alone. The Collapse and Revival of American Community*. New York: Simon & Schuster.

Schain, M., Zolberg, A. & Hossay, P. (eds.) (2002). *Shadows Over Europe: The Development and Impact of the Extreme Right in Western Europe*. New York: Palgrave Macmillan.

Swyngedouw, M. (1998). Anvers, Une ville à la portée du Vlaams Blok. In P. Delwit, J-M. De Waele & A. Rea (eds.), *L'extrême droite en France et en Belgique*. Brussels: Editions complexe, pp. 291-315

Teorell, J. & Lindstedt, C. (2010). Measuring Electoral Systems. *Political Research Quarterly* 63 (2): 434-448.

Troufleau, P. (1995). Géographie des comportements électoraux en Eure-et-Loir : essai d'explication socio-économique et problèmes méthodologiques. *L'information géographique* 2: 155-168

Tunstall, H., Rossiter, D.J., Pattie, C.J., MacAllister, I., Johnston, R.J. & Dorling, D.F.L. (2000). Geographical scale, the Feel-good factor, and voting at the 1997 general election in England and Wales. *Transactions of the Institute of British Geographers* 25 (1): 51-64.

van der Brug, W., Fennema, M. & Tillie, J. (2000). Anti-immigration parties in Europe: Ideological or protest vote ? *European Journal of Political Research* 37 (1): 77-102.

van der Brug, W., Fennema M. & Tillie J. (2005). Why some anti-immigrant parties succeed and others fail? A Two-step model of aggregate electoral support. *Comparative Political Studies* 38 (5): 537-573.

Van Hamme, G. (2008). La géographie de l'Extrême Droite peut-elle s'expliquer par l' « ethnocentrisme » des territoires ? Une analyse multiscalaire en Europe occidentale. *Espace populations sociétés* 3.

Walgrave, S., Lefevere, J. & Hooghe, M. (2010). Volatiel of wispelturig? Hoeveel en welke kiezers veranderden van stemvoorkeur tijdens de campagne? In K. Deschouwer, P. Delwit, M. Hooghe & S. Walgrave (eds.), *De stemmen van het volk: een analyse van het kiesgedrag in Vlaanderen en Wallonië op 7 juni 2009*. Brussels: VUB Press, pp. 29-50.

A. **Appendix**

A.1. Database description

We use data from the PartiRep Election Study (http://www.partirep.eu/). This voter survey is organized jointly by four Belgian universities (Vrije Universiteit Brussel, Université Libre de Bruxelles, Katholieke Universiteit Leuven and Universiteit Antwerpen) and is financed by the Belgian Federal Scientific Policy (BelSpo). Partirep was conducted in the two largest Belgian regions – Flanders and Wallonia – on the occasion of the 2009 Regional Elections. PartiRep is a panel survey organized in three waves. In wave one, a geographically stratified sample of eligible voters in Flanders and Wallonia was drawn from the national registry. The total number of addresses was 4363, spread out over 240 sampling points. No replacement addresses were used. The selected individuals were then asked to participate in a CAPI interview that would last approximately 45 minutes. The expected net sample size for wave 1 was 2400 completed interviews. Due to the lower response rate, an additional sample of 500 addresses was obtained for the most problematic sampling points. Field work on wave 1 commenced on February 21st, 2009 and ended on May 23rd, 2009. After field work for wave 1 ended, 2331 completed interviews had been conducted out of 4831 addresses, a response rate of 48.3 per cent (32 addresses were omitted from the gross sample as no contact information was obtained from the interviewers during the field work period; they were therefore treated as non-contacts).

Those respondents that were successfully contacted in the first wave were asked to participate in two follow up surveys conducted over the telephone (CATI interviews). Of the 2331 successfully contacted respondents, 2057 agreed to participate in these additional surveys. Of those 2057 contacts, 1845 were successfully contacted in wave 2 a response rate of 89.6 per cent. Field work for wave 2 ran from Monday, May 25th until Saturday, June 6th 2009. For wave 3, the same set of respondents was again contacted, which resulted in 1698 completed interviews, which is a response rate of 82.1 percent. The field work for wave 3 ran from Monday, June 22nd until Monday, August 24th.

A.2. List and description of variables

Individual characteristics

XD is a dummy equal to one if the respondent declared to be willing to vote for an extreme right party (Vlaams Belang or Front National) once over the three waves of the survey.

Ethnocentrism is a variable assessing the ethnocentric attitude of individuals. It is obtained from a factor analysis carried out from three questions present in wave 1 of the survey.

Region is a dummy equal to one if the individual lives in Flanders.

Urban is a dummy equal to one if the individual lives in an area where the population density is higher than 600 inhabitants per square kilometer.

Intermediate is a dummy equal to one if the individual lives in an area where the population density is between 200 and 600 inhabitants per square kilometer.

Rural is a dummy equal to one if the individual lives in an area where the population density is lower than 200 inhabitants per square kilometer.

Age is the age of the individual, approximated by the formula: 2009 – year the individual was born.

Sex is a dummy equal to one if individual is a man.

National language is a dummy equal to one if the individual decided to carry out the interview in Flemish (the other possible language for the interview is French).

Berber, Arab or Turk is a dummy equal to one if the individual declared that one of the languages spoken at home is one of these languages (it can be the first, the second, the third, etc.)

White collar, *Blue collar*, *Self-employed*, *Liberal professions*, *Unemployed*, *Student*, *Not active* are dummies equal to one if the individual declared that his status corresponds to one of these situations.

Diploma is composed by four dummies corresponding to four level of diploma: less than secondary, lower secondary, secondary school, and higher education.

Contextual data

Rate of unemployment is the ratio between unemployed and the total active population (2001)

Share of migrants from Turkey and Maghreb is the ratio between the persons whose nationality is Turkey, Tunisia, Morocco or Algeria and the total population (2006)

Appendix 2

Multilevel analysis

[INSERT TABLE 5 HERE]

(Unemployment, migrations and attitudes)

[INSERT TABLE 6 HERE]

(Unemployment and extreme right voting behavior)

TABLE 3

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
								Ethnocentrism							
Rate of unemployment															
Statistical district		0.00581*			0.00275	0.00262		0.00229							
		(0.00341)			(0.00395)	(0.00471)		(0.00538)							
Municipality			0.0105*		0.00867		0.00279	0.00133							
			(0.00548)		(0.00552)		(0.00378)	(0.00491)							
Employment district				0.0215**		0.0199**	0.0192**	0.0190**							
				(0.00929)		(0.00809)	(0.00852)	(0.00819)							
Proportion of migrants from Turkye and Maghreb															
Statistical district									0.00605			-0.00376	0.00598		-0.00376
									(0.0108)			(0.0125)	(0.0164)		(0.0141)
Municipality										0.0348		0.0373*		0.0347	0.0372**
										(0.0216)		(0.0197)		(0.0206)	(0.0149)
Employment district											0.00473		0.00443	0.00230	0.00232
											(0.0292)		(0.0286)	(0.0251)	(0.0251)
Contextual control variables															
Region (1 if Flanders)	0.207**	0.199*	0.210**	0.203***	0.206**	0.200**	0.204***	0.201***	0.191*	0.191**	0.188**	0.190**	0.189**	0.189**	0.189**
	(0.0932)	(0.104)	(0.0904)	(0.0734)	(0.0901)	(0.0734)	(0.0730)	(0.0735)	(0.106)	(0.0917)	(0.0707)	(0.0914)	(0.0705)	(0.0717)	(0.0713)
Urban municipality	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Rural municipality	-0.0401	-0.0127	0.0344	0.0225	0.0342	0.0301	0.0356	0.0354	-0.0244	0.0234	-0.0291	0.0231	-0.0225	0.0243	0.0240
	(0.0572)	(0.0538)	(0.0616)	(0.0438)	(0.0613)	(0.0378)	(0.0424)	(0.0424)	(0.0527)	(0.0618)	(0.0627)	(0.0619)	(0.0506)	(0.0518)	(0.0515)
Intermadiate municipality	0.0219	0.0328	0.0569	0.0362	0.0559	0.0400	0.0439	0.0432	0.0298	0.0698	0.0257	0.0698	0.0307	0.0701	0.0702
	(0.0408)	(0.0359)	(0.0433)	(0.0331)	(0.0431)	(0.0356)	(0.0377)	(0.0375)	(0.0365)	(0.0502)	(0.0345)	(0.0504)	(0.0384)	(0.0465)	(0.0465)
Individual control variables															
age	0.000337	0.000342	0.000388	0.000368	0.000381	0.000368	0.000378	0.000373	0.000273	0.000267	0.000239	0.000251	0.000267	0.000264	0.000247
	(0.00109)	(0.00116)	(0.00108)	(0.00110)	(0.00108)	(0.00110)	(0.00110)	(0.00110)	(0.00116)	(0.00109)	(0.00110)	(0.00109)	(0.00113)	(0.00112)	(0.00114)
sex (1 if men)	-0.0902***	-0.0891***	-0.0907***	-0.0869**	-0.0901***	-0.0866**	-0.0873**	-0.0869**	-0.0927***	-0.0935***	-0.0925***	-0.0935***	-0.0926***	-0.0935***	-0.0934***
	(0.0283)	(0.0321)	(0.0282)	(0.0331)	(0.0283)	(0.0334)	(0.0330)	(0.0337)	(0.0322)	(0.0282)	(0.0314)	(0.0282)	(0.0310)	(0.0312)	(0.0312)
National language spoken (1 if Flemish)	-0.190**	-0.140	-0.0832	0.0442	-0.0786	0.0487	0.0478	0.0499	-0.173	-0.166*	-0.168**	-0.166*	-0.168**	-0.163**	-0.163**
	(0.0933)	(0.110)	(0.105)	(0.101)	(0.105)	(0.100)	(0.101)	(0.100)	(0.108)	(0.0895)	(0.0669)	(0.0896)	(0.0658)	(0.0651)	(0.0653)
1 if Berber, Arab or Turk is spoken at home	-0.780***	-0.811***	-0.808***	-0.787***	-0.818***	-0.800***	-0.794***	-0.802***	-0.802***	-0.824***	-0.781***	-0.814***	-0.802***	-0.824***	-0.814***
	(0.105)	(0.0997)	(0.106)	(0.0963)	(0.107)	(0.102)	(0.0971)	(0.101)	(0.105)	(0.116)	(0.101)	(0.122)	(0.117)	(0.103)	(0.114)
White collar (higher level)	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Self employed	0.0987	0.100	0.102	0.112	0.102	0.112	0.112	0.112	0.106	0.100	0.105	0.0997	0.105	0.0998	0.0993
	(0.149)	(0.139)	(0.149)	(0.129)	(0.149)	(0.130)	(0.130)	(0.130)	(0.139)	(0.148)	(0.134)	(0.148)	(0.134)	(0.136)	(0.136)
prof_lib	0.0169	0.0201	0.0164	0.0142	0.0180	0.0158	0.0143	0.0157	0.0138	0.00513	0.0135	0.00527	0.0123	0.00436	0.00449
	(0.141)	(0.151)	(0.141)	(0.158)	(0.141)	(0.159)	(0.158)	(0.158)	(0.152)	(0.140)	(0.154)	(0.140)	(0.157)	(0.160)	(0.160)
White collar (lower level)	0.00739	0.0115	0.0101	0.0187	0.0115	0.0197	0.0182	0.0193	0.00503	-0.000480	0.00436	-0.000896	0.00445	-0.000760	-0.00118
	(0.136)	(0.126)	(0.137)	(0.143)	(0.137)	(0.144)	(0.144)	(0.145)	(0.126)	(0.135)	(0.141)	(0.135)	(0.141)	(0.144)	(0.144)
Blue collar	0.0390	0.0396	0.0359	0.0461	0.0367	0.0458	0.0445	0.0451	0.0346	0.0249	0.0343	0.0244	0.0340	0.0247	0.0242
	(0.135)	(0.129)	(0.135)	(0.141)	(0.135)	(0.142)	(0.142)	(0.143)	(0.129)	(0.133)	(0.139)	(0.133)	(0.139)	(0.141)	(0.141)
Unemployed	-0.0933	-0.101	-0.104	-0.0935	-0.106	-0.0971	-0.0963	-0.0980	-0.0922	-0.102	-0.0887	-0.101	-0.0928	-0.102	-0.101
	(0.152)	(0.141)	(0.151)	(0.140)	(0.151)	(0.138)	(0.141)	(0.140)	(0.142)	(0.150)	(0.136)	(0.150)	(0.134)	(0.137)	(0.137)
Student	-0.393***	-0.389***	-0.390***	-0.384***	-0.388***	-0.382***	-0.384***	-0.383***	-0.399***	-0.404***	-0.400***	-0.405***	-0.400***	-0.405***	-0.405***
	(0.125)	(0.136)	(0.125)	(0.112)	(0.126)	(0.112)	(0.112)	(0.112)	(0.136)	(0.125)	(0.109)	(0.125)	(0.108)	(0.110)	(0.110)
Not active	-0.0396	-0.0373	-0.0411	-0.0337	-0.0398	-0.0331	-0.0347	-0.0337	-0.0444	-0.0525	-0.0440	-0.0525	-0.0450	-0.0528	-0.0528
	(0.121)	(0.122)	(0.121)	(0.134)	(0.121)	(0.134)	(0.134)	(0.135)	(0.121)	(0.119)	(0.132)	(0.119)	(0.133)	(0.135)	(0.135)
Diploma: less than secondary school	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Diploma: lower secondary school	-0.258***	-0.258***	-0.260***	-0.261***	-0.260***	-0.261***	-0.261***	-0.261***	-0.253***	-0.257***	-0.253***	-0.257***	-0.253***	-0.257***	-0.257***
	(0.0644)	(0.0582)	(0.0642)	(0.0687)	(0.0644)	(0.0692)	(0.0686)	(0.0691)	(0.0580)	(0.0645)	(0.0720)	(0.0646)	(0.0712)	(0.0707)	(0.0707)
Diploma: secondary school	-0.379***	-0.373***	-0.375***	-0.378***	-0.373***	-0.375***	-0.377***	-0.375***	-0.375***	-0.378***	-0.377***	-0.379***	-0.376***	-0.379***	-0.379***
	(0.0528)	(0.0548)	(0.0523)	(0.0504)	(0.0525)	(0.0512)	(0.0507)	(0.0513)	(0.0548)	(0.0526)	(0.0514)	(0.0525)	(0.0514)	(0.0515)	(0.0514)
Diploma: Higher education	-0.802***	-0.797***	-0.801***	-0.802***	-0.799***	-0.799***	-0.802***	-0.800***	-0.801***	-0.809***	-0.803***	-0.810***	-0.802***	-0.809***	-0.810***
	(0.0632)	(0.0580)	(0.0633)	(0.0711)	(0.0638)	(0.0728)	(0.0713)	(0.0729)	(0.0578)	(0.0632)	(0.0709)	(0.0632)	(0.0717)	(0.0709)	(0.0716)
Constant	0.514***	0.428***	0.309*	0.119	0.304*	0.110	0.106	0.105	0.509***	0.469***	0.511***	0.471***	0.503***	0.466***	0.468***
	(0.143)	(0.157)	(0.172)	(0.221)	(0.173)	(0.228)	(0.222)	(0.224)	(0.148)	(0.148)	(0.140)	(0.148)	(0.138)	(0.142)	(0.143)
Observations	2283	2283	2283	2283	2283	2283	2283	2283	2268	2268	2268	2268	2268	2268	2268
R-squared	0.139	0.140	0.141	0.143	0.141	0.143	0.143	0.143	0.140	0.141	0.139	0.141	0.140	0.141	0.141

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

TABLE 4

VARIABLES	(2)	(1)	(3)	(4)	(5)	(6)	(7)	(8) xd	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Rate of unemployment															
Statistical district		0.0244*			0.00515	0.0184		0.00536							
		(0.0140)			(0.0179)	(0.0131)		(0.0160)							
Municipality			0.0621**		0.0584*		0.0665***	0.0629***							
			(0.0300)		(0.0352)		(0.0184)	(0.0213)							
Employment district				0.0588		0.0434	-0.0107	-0.0114							
				(0.0418)		(0.0438)	(0.0486)	(0.0488)							
Proportion of migrants from Turkye and Maghreb															
Statistical district									0.0440			-0.0260	0.0381		-0.0258
									(0.0484)			(0.0465)	(0.0253)		(0.0377)
Municipality										0.212**		0.228**		0.200***	0.216***
										(0.0826)		(0.0926)		(0.0503)	(0.0582)
Employment district											0.153		0.146	0.0839	0.0835
											(0.145)		(0.141)	(0.126)	(0.126)
Contextual control variables															
Region (1 if Flanders)	0.948***	0.891***	1.044***	0.977**	1.029***	0.932**	1.044**	1.029**	0.970***	1.027***	0.884**	1.026***	0.897**	0.986**	0.985**
	(0.264)	(0.254)	(0.266)	(0.441)	(0.274)	(0.453)	(0.423)	(0.435)	(0.244)	(0.269)	(0.439)	(0.270)	(0.436)	(0.422)	(0.422)
Urban municipality	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Rural municipality	-0.955***	-0.851**	-0.594*	-0.856***	-0.594*	-0.804***	-0.586*	-0.586*	-0.897***	-0.613*	-0.901***	-0.617*	-0.859***	-0.605**	-0.609**
	(0.307)	(0.333)	(0.332)	(0.295)	(0.332)	(0.306)	(0.302)	(0.302)	(0.328)	(0.331)	(0.302)	(0.331)	(0.291)	(0.289)	(0.287)
Intermadiate municipality	-0.286	-0.250	-0.123	-0.284	-0.125	-0.258	-0.111	-0.113	-0.249	-0.00916	-0.258	-0.00904	-0.227	-0.00844	-0.00832
	(0.210)	(0.163)	(0.208)	(0.239)	(0.207)	(0.249)	(0.243)	(0.240)	(0.165)	(0.208)	(0.230)	(0.208)	(0.218)	(0.205)	(0.205)
Individual control variables															
age	-0.0258***	-0.0258***	-0.0257***	-0.0257***	-0.0257***	-0.0257***	-0.0257***	-0.0257***	-0.0254***	-0.0255***	-0.0256***	-0.0256***	-0.0254***	-0.0255***	-0.0256***
	(0.00735)	(0.00600)	(0.00731)	(0.00885)	(0.00732)	(0.00892)	(0.00870)	(0.00872)	(0.00605)	(0.00727)	(0.00885)	(0.00722)	(0.00897)	(0.00858)	(0.00861)
sex (1 if men)	0.101	0.104	0.0974	0.104	0.0980	0.105	0.0967	0.0973	0.0944	0.0940	0.107	0.0973	0.101	0.0973	0.101
	(0.146)	(0.162)	(0.148)	(0.142)	(0.148)	(0.143)	(0.144)	(0.145)	(0.161)	(0.149)	(0.141)	(0.150)	(0.142)	(0.146)	(0.149)
National language spoken (1 if Flemish)	0.890***	1.149***	1.511***	1.521**	1.525***	1.546**	1.442**	1.452**	0.883***	0.882***	1.044**	0.876***	1.043**	0.965**	0.959**
	(0.258)	(0.314)	(0.398)	(0.678)	(0.389)	(0.679)	(0.656)	(0.658)	(0.255)	(0.256)	(0.453)	(0.255)	(0.449)	(0.424)	(0.426)
1 if Berber, Arab or Turk is spoken at home	No variance among those individuals who speek one of these languages at home; 43 observations are thus removed from this estimation														
White collar (higher level)	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Self employed	-0.810	-0.797	-0.798	-0.787	-0.796	-0.784	-0.801	-0.799	-0.805	-0.828	-0.806	-0.833	-0.804	-0.827	-0.833
	(0.685)	(0.717)	(0.687)	(0.633)	(0.686)	(0.629)	(0.641)	(0.640)	(0.716)	(0.683)	(0.632)	(0.684)	(0.627)	(0.626)	(0.627)
prof_lib	0.697	0.706	0.673	0.697	0.676	0.702	0.672	0.676	0.694	0.625	0.678	0.622	0.674	0.619	0.615
	(0.710)	(0.754)	(0.709)	(0.521)	(0.708)	(0.524)	(0.519)	(0.517)	(0.753)	(0.710)	(0.519)	(0.706)	(0.530)	(0.524)	(0.517)
White collar (lower level)	-0.703	-0.685	-0.707	-0.688	-0.703	-0.679	-0.710	-0.706	-0.696	-0.740	-0.698	-0.748	-0.693	-0.737	-0.746
	(0.662)	(0.648)	(0.668)	(0.685)	(0.667)	(0.683)	(0.701)	(0.700)	(0.646)	(0.667)	(0.679)	(0.669)	(0.670)	(0.690)	(0.691)
Blue collar	-0.617	-0.614	-0.639	-0.607	-0.637	-0.609	-0.642	-0.640	-0.611	-0.681	-0.622	-0.691	-0.619	-0.683	-0.693
	(0.606)	(0.652)	(0.612)	(0.587)	(0.611)	(0.585)	(0.602)	(0.603)	(0.649)	(0.610)	(0.586)	(0.611)	(0.579)	(0.591)	(0.592)
Unemployed	-0.612	-0.638	-0.673	-0.616	-0.674	-0.635	-0.675	-0.677	-0.627	-0.682	-0.603	-0.679	-0.621	-0.678	-0.675
	(0.659)	(0.685)	(0.663)	(0.672)	(0.662)	(0.665)	(0.687)	(0.684)	(0.684)	(0.659)	(0.664)	(0.661)	(0.663)	(0.673)	(0.678)
Student	-1.771***	-1.754**	-1.769**	-1.759***	-1.765**	-1.751***	-1.771***	-1.766***	-1.747**	-1.796***	-1.777***	-1.812***	-1.761***	-1.802***	-1.817***
	(0.685)	(0.742)	(0.688)	(0.585)	(0.686)	(0.581)	(0.593)	(0.590)	(0.739)	(0.684)	(0.587)	(0.685)	(0.585)	(0.585)	(0.582)
Not active	-0.655	-0.647	-0.675	-0.646	-0.672	-0.644	-0.678	-0.675	-0.657	-0.724	-0.657	-0.728	-0.661	-0.723	-0.728
	(0.558)	(0.614)	(0.564)	(0.552)	(0.564)	(0.551)	(0.565)	(0.567)	(0.612)	(0.566)	(0.549)	(0.567)	(0.546)	(0.560)	(0.560)
Diploma: less than secondary school	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Diploma: lower secondary school	-0.412	-0.420*	-0.423	-0.412*	-0.424	-0.418*	-0.424*	-0.425*	-0.413*	-0.438*	-0.409*	-0.438*	-0.413*	-0.436*	-0.436*
	(0.256)	(0.248)	(0.260)	(0.246)	(0.260)	(0.244)	(0.252)	(0.251)	(0.249)	(0.263)	(0.247)	(0.263)	(0.248)	(0.251)	(0.251)
Diploma: secondary school	-0.976***	-0.972***	-0.985***	-0.975***	-0.983***	-0.972***	-0.986***	-0.984***	-0.969***	-1.007***	-0.982***	-1.010***	-0.981***	-1.011***	-1.015***
	(0.267)	(0.259)	(0.267)	(0.249)	(0.266)	(0.248)	(0.248)	(0.247)	(0.260)	(0.268)	(0.249)	(0.266)	(0.248)	(0.244)	(0.243)
Diploma: Higher education	-2.369***	-2.367***	-2.392***	-2.371***	-2.390***	-2.368***	-2.393***	-2.391***	-2.360***	-2.427***	-2.377***	-2.434***	-2.375***	-2.432***	-2.439***
	(0.368)	(0.356)	(0.369)	(0.304)	(0.368)	(0.302)	(0.306)	(0.304)	(0.355)	(0.370)	(0.304)	(0.370)	(0.302)	(0.306)	(0.303)
Constant	-0.548	-0.914	-1.756*	-1.621*	-1.761*	-1.615*	-1.649*	-1.647*	-0.628	-0.865	-0.788	-0.844	-0.835	-0.966*	-0.945*
	(0.764)	(0.785)	(0.956)	(0.938)	(0.953)	(0.937)	(0.904)	(0.907)	(0.763)	(0.777)	(0.586)	(0.772)	(0.587)	(0.575)	(0.570)
Observations	2279	2279	2279	2279	2279	2279	2279	2279	2265	2265	2265	2265	2265	2265	2265
Pseudo R-squared															

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

TABLE 5

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Ethnocentrism												
Rate of unemployment													
Statistical district			0.00591*										
			(0.00327)										
Municipality					0.00893*								
					(0.00492)								
Employment district							0.0203**						
							(0.00828)						
Proportion of migrants from Turkye and Maghreb													
Statistical district									0.00405				
									(0.0110)				
Municipality											0.0363*		
											(0.0217)		
Employment district													0.0307
													(0.0312)
Contextual control variables													
Region (1 if Flanders)	0.207*	0.224*	0.216*	0.230**	0.234**	0.249**	0.241**	0.208*	0.209*	0.212*	0.215*	0.231**	0.229*
	(0.115)	(0.116)	(0.116)	(0.116)	(0.115)	(0.116)	(0.116)	(0.117)	(0.117)	(0.117)	(0.117)	(0.117)	(0.117)
Urban municipality	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Rural municipality	0.00973	-0.00823	0.0111	0.0173	0.0463	0.0287	0.0455	0.00339	0.00723	0.0278	0.0555	0.0371	0.0439
	(0.0503)	(0.0519)	(0.0529)	(0.0550)	(0.0571)	(0.0516)	(0.0520)	(0.0522)	(0.0532)	(0.0553)	(0.0577)	(0.0519)	(0.0523)
Intermadiate municipality	-0.0227	-0.0246	-0.0144	-0.0232	-0.0104	-0.0145	-0.0158	-0.0229	-0.0200	-0.0212	-0.00256	-0.0132	-0.0138
	(0.0346)	(0.0352)	(0.0357)	(0.0382)	(0.0387)	(0.0357)	(0.0355)	(0.0353)	(0.0362)	(0.0382)	(0.0398)	(0.0357)	(0.0358)
Individual control variables													
age	0.000431	0.000506	0.000493	0.000588	0.000602	0.000523	0.000516	0.000419	0.000435	0.000491	0.000512	0.000431	0.000425
	(0.00117)	(0.00116)	(0.00116)	(0.00116)	(0.00116)	(0.00116)	(0.00116)	(0.00117)	(0.00117)	(0.00116)	(0.00116)	(0.00117)	(0.00117)
sex (1 if men)	-0.0904***	-0.0903***	-0.0888***	-0.0856***	-0.0852***	-0.0909***	-0.0890***	-0.0926***	-0.0926***	-0.0876***	-0.0871***	-0.0932***	-0.0927***
	(0.0320)	(0.0318)	(0.0318)	(0.0316)	(0.0316)	(0.0318)	(0.0318)	(0.0319)	(0.0319)	(0.0317)	(0.0317)	(0.0319)	(0.0319)
National language spoken (1 if Flemish)	-0.171	-0.190	-0.143	-0.174	-0.0928	-0.183	0.0124	-0.174	-0.174	-0.157	-0.149	-0.170	-0.152
	(0.116)	(0.116)	(0.119)	(0.118)	(0.126)	(0.123)	(0.145)	(0.117)	(0.117)	(0.119)	(0.119)	(0.124)	(0.126)
1 if Berber, Arab or Turk is spoken at home	-0.783***	-0.773***	-0.806***	-0.770***	-0.786***	-0.782***	-0.788***	-0.773***	-0.788***	-0.772***	-0.798***	-0.783***	-0.785***
	(0.118)	(0.118)	(0.119)	(0.118)	(0.118)	(0.118)	(0.118)	(0.119)	(0.125)	(0.119)	(0.120)	(0.119)	(0.119)
White collar (higher level)	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Self employed	0.101	0.102	0.103	0.106	0.109	0.102	0.110	0.110	0.110	0.115	0.114	0.109	0.108
	(0.139)	(0.139)	(0.139)	(0.138)	(0.138)	(0.138)	(0.138)	(0.139)	(0.139)	(0.139)	(0.139)	(0.139)	(0.139)
prof_lib	0.0201	0.0161	0.0163	0.0253	0.0205	0.00795	0.00580	0.0131	0.0118	0.0216	0.0115	0.00672	0.00272
	(0.157)	(0.157)	(0.156)	(0.156)	(0.156)	(0.156)	(0.156)	(0.157)	(0.157)	(0.157)	(0.157)	(0.157)	(0.157)
White collar (lower level)	0.0155	0.00655	0.00892	0.00549	0.00624	0.0112	0.0175	0.00358	0.00344	0.00276	-0.00127	0.00989	0.00922
	(0.128)	(0.128)	(0.128)	(0.127)	(0.127)	(0.128)	(0.128)	(0.128)	(0.128)	(0.127)	(0.127)	(0.128)	(0.128)
Blue collar	0.0487	0.0377	0.0368	0.0365	0.0350	0.0425	0.0480	0.0332	0.0328	0.0320	0.0266	0.0392	0.0384
	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)
Unemployed	-0.0836	-0.0882	-0.0991	-0.105	-0.112	-0.100	-0.101	-0.0840	-0.0872	-0.0998	-0.108	-0.0944	-0.0965
	(0.139)	(0.139)	(0.139)	(0.138)	(0.138)	(0.138)	(0.138)	(0.139)	(0.139)	(0.139)	(0.139)	(0.139)	(0.139)
Student	-0.383***	-0.386***	-0.385***	-0.378***	-0.379***	-0.386***	-0.383***	-0.394***	-0.394***	-0.386***	-0.390***	-0.392***	-0.394***
	(0.141)	(0.140)	(0.140)	(0.140)	(0.140)	(0.140)	(0.140)	(0.140)	(0.140)	(0.140)	(0.140)	(0.140)	(0.140)
Not active	-0.0325	-0.0388	-0.0379	-0.0459	-0.0466	-0.0410	-0.0374	-0.0428	-0.0437	-0.0489	-0.0542	-0.0432	-0.0445
	(0.122)	(0.122)	(0.122)	(0.121)	(0.121)	(0.121)	(0.121)	(0.122)	(0.122)	(0.121)	(0.121)	(0.121)	(0.121)
Diploma: less than secondary school	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Diploma: lower secondary school	-0.259***	-0.255***	-0.254***	-0.257***	-0.256***	-0.263***	-0.263***	-0.248***	-0.249***	-0.250***	-0.251***	-0.256***	-0.256***
	(0.0591)	(0.0590)	(0.0589)	(0.0587)	(0.0587)	(0.0589)	(0.0588)	(0.0591)	(0.0591)	(0.0589)	(0.0589)	(0.0590)	(0.0590)
Diploma: secondary school	-0.378***	-0.376***	-0.370***	-0.375***	-0.371***	-0.374***	-0.373***	-0.373***	-0.372***	-0.372***	-0.371***	-0.371***	-0.372***
	(0.0561)	(0.0560)	(0.0561)	(0.0558)	(0.0558)	(0.0559)	(0.0559)	(0.0562)	(0.0562)	(0.0560)	(0.0560)	(0.0561)	(0.0561)
Diploma: Higher education	-0.801***	-0.799***	-0.793***	-0.799***	-0.796***	-0.802***	-0.801***	-0.799***	-0.798***	-0.798***	-0.799***	-0.802***	-0.803***
	(0.0594)	(0.0594)	(0.0594)	(0.0594)	(0.0594)	(0.0592)	(0.0592)	(0.0595)	(0.0595)	(0.0595)	(0.0595)	(0.0594)	(0.0594)
Constant	0.501***	0.502***	0.421***	0.483***	0.333*	0.461***	0.137	0.506***	0.501***	0.487***	0.454***	0.468***	0.434***
	(0.152)	(0.152)	(0.158)	(0.152)	(0.173)	(0.154)	(0.205)	(0.152)	(0.153)	(0.152)	(0.154)	(0.155)	(0.158)
Observations	2283	2283	2283	2283	2283	2283	2283	2268	2268	2268	2268	2268	2268
Variance decomposition													
employment district (36)						0.0083*	0.0059					0.0079*	0.0089*
						0.0046	(0.0037)					(0.0045)	(0.0048)
Municipalities (215)				0.0230***	0.0216***					0.0226***	0.0222***		
				(0.0075)	(0.0074)					(0.0075)	(0.0074)		
Statistical district (1645)		0.050***	0.0490***					0.0493***	0.0493***				
		(0.0191)	(0.0191)					(0.0191)	(0.0191)				

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 6

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7) xd	(8)	(9)	(10)	(11)	(12)	(13)
Rate of unemployment													
Statistical district			0.0315*										
			(0.0165)										
Municipality					0.0711***								
					(0.0271)								
Employment district							0.0776*						
							(0.0456)						
Proportion of migrants from Turkye and Maghreb													
Statistical district									0.0575				
									(0.0508)				
Municipality											0.214***		
											(0.0792)		
Employment district													0.179
													(0.131)
Contextual control variables													
Region (1 if Flanders)	0.914	0.914	0.828	0.946	1.053	0.941	0.957	0.923	0.935	0.956	1.007	0.950	0.833
	(0.735)	(0.735)	(0.725)	(0.746)	(0.769)	(0.742)	(0.752)	(0.738)	(0.746)	(0.749)	(0.759)	(0.745)	(0.730)
Urban municipality	S	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Rural municipality	-0.514	-0.514	-0.426	-0.448	-0.215	-0.479	-0.414	-0.512	-0.458	-0.445	-0.250	-0.477	-0.435
	(0.333)	(0.333)	(0.336)	(0.346)	(0.356)	(0.338)	(0.339)	(0.333)	(0.336)	(0.346)	(0.351)	(0.338)	(0.337)
Intermadiate municipality	-0.304*	-0.304*	-0.271	-0.259	-0.184	-0.283	-0.309*	-0.303*	-0.264	-0.259	-0.118	-0.283	-0.303*
	(0.170)	(0.170)	(0.171)	(0.182)	(0.183)	(0.174)	(0.175)	(0.170)	(0.174)	(0.182)	(0.188)	(0.173)	(0.174)
Individual control variables													
age	-0.0254***	-0.0254***	-0.0256***	-0.0263***	-0.0260***	-0.0254***	-0.0255***	-0.0252***	-0.0249***	-0.0261***	-0.0255***	-0.0252***	-0.0252***
	(0.00586)	(0.00586)	(0.00586)	(0.00598)	(0.00594)	(0.00587)	(0.00586)	(0.00587)	(0.00587)	(0.00598)	(0.00594)	(0.00587)	(0.00586)
sex (1 if men)	0.0875	0.0875	0.0948	0.0802	0.0835	0.0875	0.0921	0.0876	0.0818	0.0807	0.0847	0.0877	0.0947
	(0.163)	(0.163)	(0.163)	(0.165)	(0.165)	(0.163)	(0.163)	(0.163)	(0.163)	(0.165)	(0.165)	(0.163)	(0.163)
National language spoken (1 if Flemish)	1.029	1.029	1.363*	1.013	1.691**	0.984	1.825**	1.012	1.021	0.995	1.012	0.966	1.213
	(0.737)	(0.737)	(0.761)	(0.750)	(0.819)	(0.748)	(0.906)	(0.740)	(0.748)	(0.752)	(0.762)	(0.751)	(0.755)
1 if Berber, Arab or Turk is spoken at home	No variance among those individuals who speek one of these languages at home; 43 observations are thus removed from this estimation												
White collar (higher level)	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Self employed	-0.827	-0.827	-0.805	-0.806	-0.791	-0.804	-0.788	-0.821	-0.815	-0.801	-0.809	-0.798	-0.819
	(0.746)	(0.746)	(0.746)	(0.755)	(0.755)	(0.748)	(0.747)	(0.746)	(0.746)	(0.755)	(0.752)	(0.748)	(0.748)
prof_lib	0.772	0.772	0.774	0.813	0.753	0.792	0.769	0.776	0.763	0.817	0.715	0.797	0.742
	(0.759)	(0.759)	(0.761)	(0.770)	(0.771)	(0.759)	(0.759)	(0.759)	(0.761)	(0.770)	(0.771)	(0.759)	(0.761)
White collar (lower level)	-0.681	-0.681	-0.659	-0.684	-0.691	-0.675	-0.661	-0.679	-0.673	-0.682	-0.713	-0.673	-0.676
	(0.686)	(0.686)	(0.686)	(0.695)	(0.695)	(0.687)	(0.686)	(0.686)	(0.686)	(0.695)	(0.694)	(0.687)	(0.687)
Blue collar	-0.588	-0.588	-0.584	-0.594	-0.609	-0.571	-0.564	-0.585	-0.581	-0.591	-0.639	-0.568	-0.586
	(0.678)	(0.678)	(0.678)	(0.688)	(0.688)	(0.679)	(0.679)	(0.678)	(0.678)	(0.688)	(0.686)	(0.679)	(0.679)
Unemployed	-0.552	-0.552	-0.591	-0.543	-0.619	-0.529	-0.550	-0.545	-0.577	-0.537	-0.615	-0.522	-0.539
	(0.723)	(0.723)	(0.725)	(0.734)	(0.735)	(0.725)	(0.724)	(0.723)	(0.725)	(0.734)	(0.733)	(0.725)	(0.725)
Student	-1.723**	-1.723**	-1.709**	-1.740**	-1.744**	-1.717**	-1.711**	-1.717**	-1.698**	-1.734**	-1.754**	-1.711**	-1.733**
	(0.760)	(0.760)	(0.761)	(0.771)	(0.771)	(0.762)	(0.761)	(0.760)	(0.761)	(0.771)	(0.769)	(0.762)	(0.762)
Not active	-0.639	-0.639	-0.627	-0.643	-0.657	-0.631	-0.621	-0.636	-0.644	-0.640	-0.694	-0.627	-0.638
	(0.649)	(0.649)	(0.650)	(0.658)	(0.658)	(0.650)	(0.649)	(0.649)	(0.650)	(0.658)	(0.657)	(0.650)	(0.650)
Diploma: less than secondary school	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Diploma: lower secondary school	-0.430*	-0.430*	-0.440*	-0.421	-0.423*	-0.433*	-0.428*	-0.427*	-0.430*	-0.417	-0.434*	-0.429*	-0.426*
	(0.253)	(0.253)	(0.253)	(0.258)	(0.257)	(0.254)	(0.253)	(0.253)	(0.253)	(0.258)	(0.256)	(0.254)	(0.253)
Diploma: secondary school	-1.006***	-1.006***	-0.999***	-1.014***	-1.001***	-1.006***	-0.999***	-0.999***	-0.996***	-1.006***	-1.018***	-0.999***	-1.007***
	(0.250)	(0.250)	(0.250)	(0.254)	(0.253)	(0.250)	(0.250)	(0.250)	(0.250)	(0.255)	(0.253)	(0.251)	(0.251)
Diploma: Higher education	-2.379***	-2.379***	-2.376***	-2.458***	-2.446***	-2.392***	-2.382***	-2.372***	-2.368***	-2.451***	-2.454***	-2.385***	-2.383***
	(0.334)	(0.334)	(0.333)	(0.342)	(0.340)	(0.335)	(0.334)	(0.334)	(0.333)	(0.342)	(0.339)	(0.335)	(0.334)
Constant	-0.718	-0.718	-1.160	-0.769	-2.044**	-0.764	-2.117*	-0.727	-0.804	-0.778	-0.994	-0.773	-0.990
	(0.793)	(0.793)	(0.826)	(0.808)	(0.954)	(0.799)	(1.142)	(0.793)	(0.797)	(0.808)	(0.810)	(0.799)	(0.815)
Observations	2279	2279	2279	2279	2279	2279	2279	2265	2265	2265	2265	2265	2265
Variance decomposition													
employment district (36)						0.0237	0.0071					0.0236	0.00134
						(0.0374)	(0.0283)					(0.0374)	(0.0313)
Municipalities (215)				0.1498	0.105					0.1487	0.0743		
				(0.108)	(0.103)					(0.108)	(0.0374)		
Statistical district (1645)		1.10e-15	1.31e-13					9.74e-16	4.04e-16				
		(3.02e-16)	(3.46e-8)					(2.84e-8)	(1.84e-8)				

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1