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The nexus of cultural diversity, social cohesion and the radical right in Sweden

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1. Introduction

Sweden today, like many countries in Western and Northern Europe, is facing the challenges of rapid ethnic diversification. Sweden has experienced some of the fastest heterogenisation in Europe as a result of the refugee crisis that started in 2014. As diversity has increased, the integration of immigrants and the handling of growing cultural differences has become an increasingly urgent issue. The issue of cultural differences is particularly problematic according to the cultural deficit paradigm. The greater the linguistic, cultural and lifestyle differences are, the more difficult and time-consuming it is for immigrants to integrate successfully into society.

The increase in diversity has consequences in almost all aspects of society in general. International research has paid particular attention to the impact on social cohesion. Research in recent years has overwhelmingly shown that ethnic diversity has a negative effect on social cohesion. This process can cause major social shifts in the Nordic countries, characterized by high levels of trust. It makes the study of Sweden an additional relevance. Closely linked to the increase in diversity is the rise of radical right parties in Europe as a result of immigration (the paper identifies the concept of the radical right using Jens Rydgren's master concept of ethnonationalism). In Sweden today, the radical right is a major factor through the Sweden Democrats, and the Swedish exceptionalism of the past has disappeared (while radical right parties had already appeared in parliaments in Western and Northern Europe in the early 2000s, in Sweden the ideology of such parties did not reach a wide audience). The party first entered the Swedish parliament in 2010 (5.7%), and has been growing ever since, winning third place in the 2018 election (17.53%). They also played a major role in the overthrow of the left-wing Swedish government in June 2021.

This dissertation explores the relationship between diversity, trust and support for radical right by incorporating novel methodological elements. It presents a group-specific diversity index weighted by cultural distance and compares different spatial modelling techniques to better explore the relationships described in the title of the thesis.

2. Research Aims

The aim of the research is to understand the relationship between diversity, the results of a radical right party and social cohesion, with a focus on identifying geographical and contextual influencing factors (spatial location, neighbourhood effect).

Aim:

I aim to draw the spatial structure of the Sweden Democrats' 2018 election results. To do so, the phenomenon of local spatial autocorrelation and neighbourhood effects on party support must be taken into account. The party's voter bases and areas where it performs poorly in clusters, as well as outliers that deviate from the pattern of its neighbours, are identified.

Hypotheses:

Threats arising from immigration are often based on cultural identity and the perceived cultural distance between immigrant groups and the majority culture, which prevent the positive contacts needed to build trust. Cultural differences can also exacerbate anti-immigrant attitudes that are based simply on diversity. In fact, greater cultural differences between immigrants and local residents can further increase support for the radical right, partly because of their rhetoric that promotes the barriers to integration that cultural differences present.

> *H1: The model with the weighted diversity index (PHI) is better suited to estimating the Sweden Democrats' electoral performance than the classical diversity indexes.*
> *H2: A model incorporating a weighted diversity index (PHI) is more suitable for estimating the trust level of individuals than those using classical diversity indices.*

The Sweden Democrats' performance by electoral districts is most commonly analysed in the literature using linear regression. However, the use of this method can produce spatially biased and erroneous results due to certain spatial factors.

> H3: *The spatial modelling (spatial lag model, spatial error model, geographically weighted regression) allows us to describe the factors influencing support for the Sweden Democrats with more appropriate and better estimating models.*

The phenomenon of the halo effect (non-perceived xenophobia; the theory is that anti-immigrant parties are strong in the neighbourhood of a concentration of immigrants, not in the concentration itself) is well known and studied in the literature on radical right parties. The thesis argues for the importance of the role of diversification and ethnic polarisation, and interprets these as neighbourhood effects as well.

H4: *The halo effect of diversification (and ethnic polarisation) also has a positive impact on the votes of the radical right party, so that even in central electoral districts with a low degree of heterogenisation, surrounded by rapidly diversifying electoral districts, the support for the Sweden Democrats increases, as a result of the phenomenon observed in the neighbouring areas.*

The neighbourhood role of economic factors (unemployment, income) is an under-researched area. Relative deprivation compared to the aggregate economic data of neighbouring areas can increase frustration among residents and turn them towards the radical right.

H5: *Relative deprivation compared to neighbouring electoral districts in terms of income or unemployment increases support for the radical right (when controlling for the diversity variable).*

My aim is to show the negative impact of a locally strong radical right, on the confidence level of local residents. Research history suggests that local party rhetoric contains more ethnonationalist elements than national rhetoric, and thus may have a greater influence on residents' perceptions of ethnic conflict.

H6: *The "conservative climate" at the local level acts as a contextual effect and reduces the generalised trust of residents.*

3. Research methods

The two most important territorial levels of the studies in this thesis are Swedish municipalities (290) and Swedish electoral districts (6008). The different territorial levels were necessary to investigate the contextual effects, as these and the effects of ethnic diversity are different at lower and higher territorial levels. I downloaded the results of the 2018 parliamentary elections for the Sweden Democrats from the Swedish Election Office website, while the ethnic and socio-economic variables were obtained from Statistics Sweden. The analysis at the electoral district level was complicated by the fact that socio-economic and ethnic data were not available for this spatial level, I only had access to data according to the Swedish DeSO system, which did not match the delimitation of electoral districts, especially in rural areas. For this reason, in order to obtain the best possible match, I looked at the polling districts and DeSOs one by one and. Where there were discrepancies, I averaged them by weight or compared the names of the polling districts with the names of the settlements on the satellite map.

Based on the research objectives, I used the peripheral heterogeneity index weighted by cultural distances, which I had previously developed together

with Dr. Ádám Németh, to measure diversity. This index is a modification of the PHI measuring linguistic differences created by Desmet and colleagues, using the cultural distance measure used by Schaeffer (cultural distance was based on the World Values Survey cultural world map). I was only able to calculate PHI at the municipality level due to lack of detailed data at the electoral district level. Instead at the electoral district level, I analysed diversity and diversification by the proportion of non-European immigrants and the change in their proportion between 2015 and 2018. In order to compare ethnic indices, I also calculated ethnic fragmentation and ethnic polarisation indices to verify the first hypothesis.

$$\mathrm{PHI} = 2\sum_{j=1}^{K} s_j s_c \tau_j$$

s_j: Swedish ethnicity as a proportion of the total population
s_c: Ratio of c ethnicity to total population
τ_{cj}: Variable for weighting between Swedish and c ethnicity, hereafter referred to as cultural distance

I have used spatial diagnostic tools to analyse the spatial structure of the Sweden Democrats and to study aggregate data that influence the election results. The most important of these are the Moran's I and the local Moran's I, which are able to display the phenomenon of spatial autocorrelation. Since spatial diagnostics for the linear regression models indicated spatial bias and error, I applied spatial models (spatial lag model and spatial error model) using first-order queen continuity and Kn77 (nearest 77 neighbours) spatial weight matrix. Spatial diagnostics also indicated the nonstationary nature of the data, which justified the use of geographically weighted regression (adaptive spatial filter, Kn77 bandwidth).

In order to study the impact of ethnic diversity and the conservative climate (expressed as the percentage of representatives of the Sweden Democrats in the local councils of Swedish municipalities) on trust, I needed to use questionnaires in addition to aggregate data. Due to the virus situation, I could only use questionnaire surveys from the Swedish SOM-Institute, whose database I obtained from the Swedish National Data Service. These two surveys cover National SOM 2018 (n=10796) and Western SOM 2018 (n=2913). Due to the embedded nature of the individuals, the use of multilevel modelling was justified and later confirmed by the results. The research also involved interviews with Sweden Democrat politicians, researchers at the University of Gothenburg and the head of a refugee support organisation.

Data were processed using MS Excel 2016, IBM SPSS Statistics 20, ArcMap 10.2.2 and GeoDa software.

4. Summary of results

Based on the results, four of the thesis hypotheses can be considered confirmed, one partially confirmed and one refuted. The research aim, the spatial representation of the Sweden Democrats' election results, has been met. Related to this, a spatial autocorrelation between the results of the Sweden Democrats is found according to Moran's I, i.e. in municipalities or electoral districts close to each other, the radical right party has obtained similar results. The local Moran's I analysis at the electoral district level reveals the areas where the party has clustered in high or low electoral results, and the electoral districts that are pointwise outliers in these clusters and have different results compared to their surroundings. The local Moran's I map shows that the party has increased its support base compared to 2014 and that the high-high cluster has expanded northwards, covering a significant proportion of rural areas except for the northern part of the country.

Figure 1 shows that around the larger cities, the high-support cluster is fragmented, these cities are characterised by low support, surrounded by a high-low ring. Moving away from the ring, non-significant electoral districts are found, and then the high-high rural cluster reappears. In some larger cities (e.g. Västerås, Kalmar, Växjö), however, there is no low-low cluster, only a low-high cluster, where urban low support electoral districts are immediately bordered by high support agglomeration and rural electoral districts. The northern part of the country is still characterised by low-low clusters (for example in Umeå, one of the larger cities), but within these clusters there are also high support electoral districts with high marginal values. The Kruskal-Wallis test has also shown that the Sweden Democrats are strongest in municipalities with a high number of commuters, in the neighbourhoods of medium-sized and small towns.

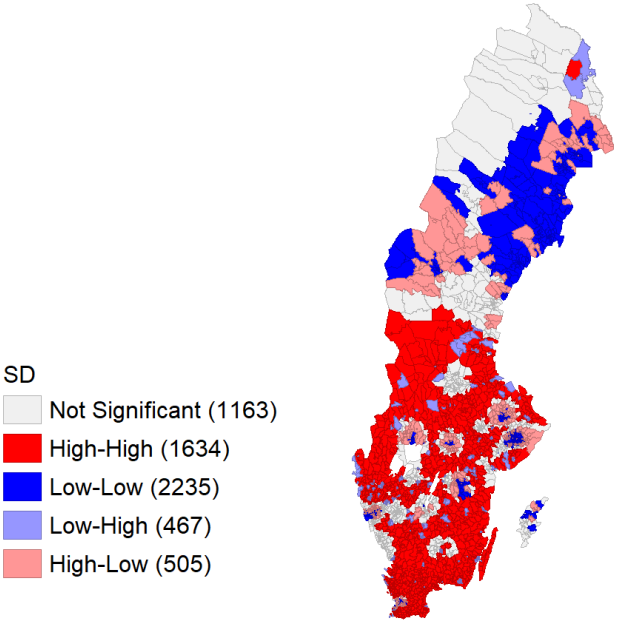

Figure 1: Results of local area autocorrelation (LISA) analysis for the Sweden Democrats' election results (2018) at the electoral district level using the Kn77 spatial weight matrix. The number of electoral districts in each category is shown in parentheses. Source: own editing

H1: At the level of municipalities the hypothesis was confirmed, only the polarisation index had a significant influence on the results of the Sweden Democrats, but the model with the PHI and its four-year change eventually fitted better. The effect of the PHI was in line (negative direction) with previous studies using other diversity measures, while the degree of diversification increases support for the Sweden Democrats. The negative effect confirms the contact hypothesis that continued positive contact with other ethnicities reduces prejudice and support for the radical right. The effect of cultural distance is reflected in the fact that Swedish electoral analysis shows that immigrants from non-European countries are less likely to support the Sweden Democrats (4%). This difference in party preference is captured in the index, and for this reason I also obtained a better fit using the PHI weighted by cultural distance than using the plain immigrant percentage or

the fragmentation index. In the case of diversification, the PHI successfully captures the perceived ethnic threat factor mentioned earlier, which is closely related to the size of the cultural distance (the contact hypothesis cannot hold in the case of rapid diversification). Since the vast majority of electoral geography analyses, with some salutary exceptions, completely avoid the use of ethnic indices, this result may also encourage more frequent use of ethnic indices.

H2: There is no statistically significant difference between the diversity indices; the results of the multilevel regression and linear regression show a similar fit for each of the diversity indices. Although nuancing diversity may capture differences in values and language that may make individuals appear less reliable, the use of cultural weighting and PHI does not yield new results. This means that while in theory different diversity indices may play an important distinctive role, in empirical studies they are sometimes indistinguishable. The explanation may be that local residents encounter an ethnically complex minority community rather than a homogeneous ethnic group, so that the dynamics of community cohesion are fundamentally shaped by majority-minority interaction. The use of the PHI weighted by cultural differences may add to the academic interest in the scientific discourse led by Dinesen, Schaeffer, van der Meer and Tolsma, which explores the ethnic index that best expresses the impact of ethnic diversity on social cohesion.

H3: The spatial models all showed significant improvements and better fits than the previous models, and many residual clusters with under-or overestimation were also eliminated. An additional benefit of using these models is that they help to understand the factors that drive spatial dependence. The spatial lag model was used to demonstrate the role of the neighbourhood effect of the Sweden Democrats. The spatial error model identified areas where location-specific variables not included in the models shape the party's electoral outcome. The geographically weighted regression also revealed the spatially varying strength of each variable and identified electoral districts where each variable has a prominent role. A better understanding of these local effects may also be useful for local politicians.

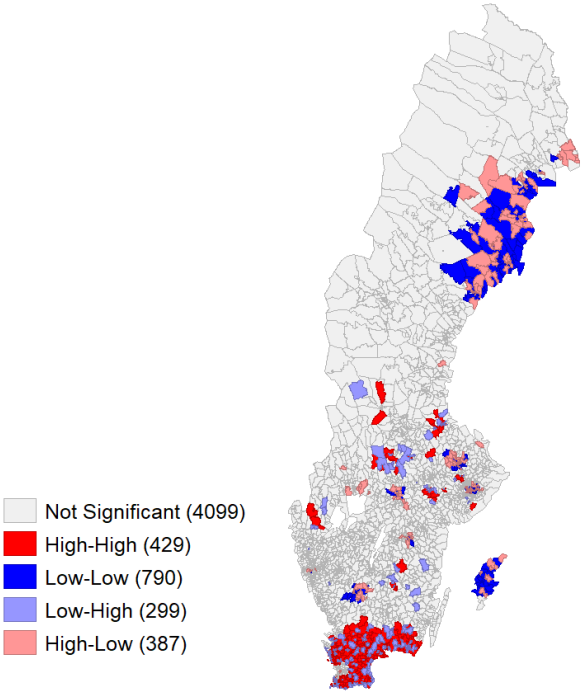

Figure 2: Results of local autocorrelation based on the residuals of the spatial error model (Kn77 weight matrix). The number of electoral districts in each category is shown in parentheses. Source: own editing

H4: As a new finding even at the international level, the halo effect of diversity variation, i.e. that in electoral districts with rapidly diversifying neighbours, this factor increases the strength of the radical right, has been confirmed. At the level of electoral districts, I was not able to calculate PHI due to lack of data, but the usefulness of the diversity indices was also demonstrated in this case by the polarisation index. This index, moreover, has an effect in combination with the share of non-Europeans. This means that when the proportion of non-European immigrants reaches a certain level, which is close to the proportion of Swedes, this process can generate a surplus of radical right votes. Although the fit of the models has improved only slightly, this is due to the fact that it is very difficult (especially at the electoral district level) to construct general models for the whole country, as there are significant spatial differences in the role of individual variables, as indicated by the significant Koenker BP test in my spatial analysis (nonstationarity). However, if we

analyse the results of the geographically weighted regression, in Figure 3 (G) we can see in red those electoral districts where the halo effect of diversification is much more significant than in the national model (especially Växjö and its region). The detection of these phenomena is also important because a radical right campaign in the municipalities selected by the geographically weighted regression, emphasising the degree of diversification of the surrounding areas before the next elections, could mobilise even more potential voters.

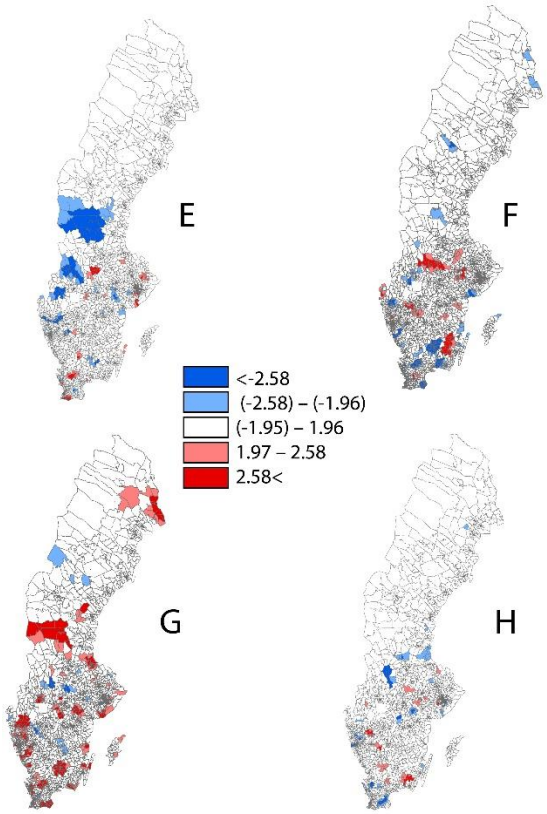

Figure 3: Pseudo t-values of some variables in the geographically weighted regression model. E=Δ Polarization index; F=Halo non-European; G=Halo Δ non-European; H=Rel. dep. not employed. Source: own editing

H5: This hypothesis was partially confirmed by the research results. Differences in income relative to neighbours did not have a significant effect in either the municipality or the electoral district analysis (when differences in diversity of neighbours were included in the model). However, differences in unemployment rates in municipalities relative to neighbouring municipalities and differences in the proportion of non-employed in electoral districts did have an effect on the Sweden Democrats' electoral performance. At the municipal level, the radical right is stronger in the neighbourhood of municipalities with unemployment. However, this is caused by the halo effect of diversity and its inclusion removes the significant role. Unemployment thus has its effect embedded in diversity (e.g. abuse of the social safety net, unemployment benefits). In line with the theory of relative deprivation, the role of a worse economic situation relative to neighbours is only observed in municipalities with homogeneous neighbours. This represents a new aspect of support for the Sweden Democrats. For electoral districts, relative deprivation according to the theory is found in electoral districts with a diverse environment. It increases support for the Sweden Democrats in electoral districts with more non-employed individuals than in their neighbours. The Swedish population may experience frustration by the fact that even in the surrounding areas populated by immigrants, the economic and employment situation is better than in their neighbourhood. The use of geographically weighted regression proved useful in this case as well, as it allowed the identification of electoral districts (Figure 3 (H)) where this effect is even stronger (e.g.: eastern part of Södertälje).

H6: The hypothesis is confirmed, the contextual effect of the conservative climate generated by the Sweden Democrats appears. Municipalities with a higher proportion of Sweden Democrat representatives in local councils between 2014 and 2018 show lower overall trust levels in 2018. What is even more worrying is that in these municipalities, residents (including non Sweden Democrat voters) are also more hostile to refugees, which could lead to an even stronger radical right party at the local level in the next elections. As the Sweden Democrats have achieved even better results in the 2018 local elections than four years earlier and have been able to delegate more members to local councils, the impact of the conservative climate could only increase, challenging the Swedish society characterised by high levels of trust and inclusion. Examining the local effects can also be useful because it shows what could happen if the Sweden Democrats were to come to power at the national level. Instead of the "rainmaker effect" shown by Putnam and his colleagues (according to which good government increases the trust level of otherwise distrustful individuals), in this case I ambitiously propose the introduction of an "acid rainmaker effect", according to which in a distrustful environment, emphasizing the disadvantage of ethnic diversity, even the trust of individuals with higher trust levels decreases.

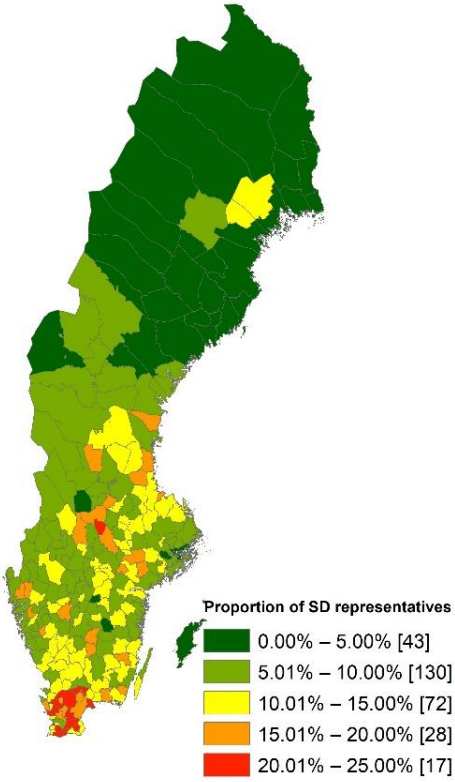

Figure 4: Sweden Democrats' share of representatives in local councils (2014). The number of municipalities in each category is shown in parentheses. Source: own editing based on data from the Swedish Election Office

List of publications on this topic:

Németh, Á. & **Sümeghy, D**. (2018). Migráció és diverzitás. Globális és európai trendek 1990 után. In N. Pap, & G. Szalai (szerk.), 2018. *Táj geográfus ecsettel*. (pp. 237–249). Pécs: PTE TTK

Németh, Á., **Sümeghy, D.,** Trócsányi, A., & Pirisi, G. (2020). Competing diversity indices and attitudes toward cultural pluralism in Europe. *Equality, Diversity and Inclusion*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/EDI-02-2019-0087 **(Q1)**

Sümeghy, D. & Péterfi, J. (2019). „A Két Front Között" - A szír menekültek elszállásolásának módja a svéd kastélyokban. *Mediterrán és Balkán Fórum 13*(3), 39–55.

Sümeghy, D. (2018). A svéd szélsőjobboldali pártok választási eredményeinek térbelisége az 1930-as években. In B. L. Alpek (szerk.), *Földrajz, diverzitás, csomópontok*. (pp. 57–71) Pécs: Publikon

Sümeghy, D., & Németh, Á. (2018). Etnikai diverzitás és a szélsőjobboldal megerősödése Svédországban 1991 után. In P. Reményi, & R. Vers (szerk.), *2018. Az iszlám és Közép-Európa, geopolitika és migráció. 10. Magyar Politikai Földrajzi Konferencia*. (pp. 267–278). Pécs: Magyar Földrajzi Társaság

Sümeghy, D., & Németh, Á. (2021). A kulturális diverzitás hatása a társadalmi bizalomra. Esettanulmány Västra Götaland példáján. *Területi Statisztika*, accepted, expected publication 2021 Q4 **(Q2)**

Sümeghy, D. (2021). The impact of the local conservative climate on generalised trust in Sweden. *Modern Geográfia*, 16(2), 113–133. https://doi.org/10.15170/MG.2021.16.02.06

Sümeghy, D. (2021). Additional contextual effects that affect voting for a radical right party: Halo effect of diversification and polarization, and the role of relative deprivation. *Regional Statistics.* The study has been proofread and corrected and is awaiting linguistic proofreading.