

Kovalcsik, Tamás¹ – Bódi, Mátyás²

Geographical Realignment of the Hungarian Voting Behaviour Between 2014 and 2022³

ABSTRACT

One of the main aims of electoral geography is to examine the spatial and socio-economic relationships of voting behaviour. Based on this, strong social cleavages were identified in the developed democracies in the 1960s, which strongly determined voting behaviour. After the regime change, these cleavages were also utilized by Hungarian electoral geographers to describe the spatiality of voting behaviour. However, a decrease in the importance of these cleavages has been reported, with the market turn of the traditional left and the strengthening of the populist right, new alignments have been created. The present study examines the spatiality of Hungarian voting behaviour and its transformation applying quantitative methods to the last three parliamentary elections. Based on our results, with the populist rhetorical change of Viktor Orbán (who is the leader of Fidesz, the governmental party since 2010) that has occurred since the migration crisis (2015), he appeals much more to disadvantaged people in the economic crisis regions (the losers of globalization), in addition to being able to retain his party's significant rural voter base, while its support is relatively decreasing in the economically active, educated, and high-income regions.

Keywords: electoral geography, populism, voting behaviour, urban-rural cleavage, parliamentary election

¹ Assistant Lecturer, University of Szeged, Department of Economic and Social Geography, Egyetem u. 2., 6722 Szeged, Hungary. +36(62)344-176, kovalcsik.tamas@geo.u-szeged.hu, ORCID: https://orcid.org/0000-0002-0306-0506

² PhD Student, Eötvös Loránd University, Department of Social and Economic Geography, Pázmány Péter sétány 1/c., 1117 Budapest, Hungary. bodimatyas@gmail.com.

³ This article is supported by the ÚNKP-21-4-SZTE-489 New National Excellence Program of the Ministry for Innovation and Technology from the source of the National Research, Develop-ment and Innovation Fund.

INTRODUCTION

The 2022 Hungarian parliamentary election provided unique circumstances and results in several aspects. On the one hand, this is the third election held in this constituency system (Tar, 2015), therefore, compared to the first two, longer-term trends can be examined on this spatial scale. On the other hand, although the 12-year-old ruling party coalition Fidesz-KDNP (Alliance of Young Democrats – Christian Democratic People's Party) – led by Viktor Orbán – faced a united opposition [including former far-right, liberal and leftist parties, as well as their common candidates who had been selected through a primary election (Bódi & Kovalcsik, 2022)] for the first time since 2006 (when they lost) and they received (again) a two-thirds majority in the legislature. At the last three elections, despite the similarity of the mandate ratios, the spatiality of voting behaviour has shifted significantly on both the governmental and opposition sides, and these transformations are not independent from the composition of society; moreover, electoral geography is primarily intended to explore the social, economic and, especially, spatial background factors that influence voter decisions (Shin, 2015).

These factors include social status, age, employment status, capital-labour relations, cultural-religious orientation, position in information networks or the cohesion of local society, and the local context (Berelson et al., 1954). Previous research has shown that these factors in developed democracies largely determined voting behaviour before the 1970s, creating stable cleavages within societies, which largely determined the voting bases of each party (Lipset & Rokkan, 1967). Hungarian electoral geography research most often explains the spatiality of voting behaviour with this cleavage theory (Kovács & Dingsdale, 1998; Kovács & Vida, 2015; Mészáros et al., 2007; Vida & Kovács, 2017; Vida & Kovalcsik, 2018). Although recently stable cleavages have had less influence on voting behaviour, as the resilient neoliberal economy affected by globalization divides society into much smaller groups that are highly variable in time and space, making voting behaviour itself also unstable (Drummond, 2006). In addition, right-wing populism has risen since the 2010s, and its representative in Hungary is the ruling party, Fidesz.

The aim of the present study is to explore the influence of these two processes – the realignment of traditional cleavages and the rise of right-wing populism – on the spatiality of voting behaviour. Based on the aim of the research, we formulated the following questions:

- What is the spatial structure of the Hungarian voting behaviour and its realignment based on the results of the last three elections?
- At the constituency scale, what social indicators determine the support of parties in parliament?
- At the constituency level, which indicators influenced the change of parties' support?

The study is structured as follows. After the introduction, in the first part of the study, we described the theoretical background of Hungarian voting behaviour. Then, we presented the data collection and the mathematical and statistical methods used. Following the presentation of the main framework and the research methodology, based on the results of the 2014, 2018 and 2022 parliamentary elections, we clustered the 106 constituencies in Hungary based on the support of political parties and their

transformation. In addition, we examined the socio-economic factors of voting behaviour and its transformation. We ended the study with the conclusions drawn from our analysis.

THEORETICAL BACKGROUND

Due to the disintegration of the Socialist bloc in the 1990s, electoral geography has emerged in eastern Europe. The developed world has become interested in electoral processes within democracies transformed from state socialist systems (Ishiyama, 2000). Several publications about Hungary have been published in the most prestigious English-language journals on the topic of electoral geography. Initially, only the election results were mapped and their basics interpreted (Kovács, 1993; Martis et al., 1992), but later Kovács & Dingsdale (1998) created the Hungarian spatial structure model of voting behaviour based on the cleavage theory of Lipset & Rokkan (1967), emphasizing the urbanrural divide and the different attitudes of the winners and losers of the regime change in voting behaviour. Based on these, by 1994 areas with high direct foreign investment and low unemployment supported more the Hungarian Democratic Forum (hereinafter MDF, which formed the first rightwing government), while the losers of globalization, those living in areas with high unemployment due to the transition, voted more for the communist successor party, the Hungarian Socialist Party (hereinafter MSZP) (Dingsdale & Kovacs, 1996; Kovács & Dingsdale, 1998). Based on this, right after the regime change, the classic economic cleavage between the political left and right was formed at the third election. Other important empirical analyses in the region proved that not just party support and electoral performance are determined by these cleavages, but the institutionalization of political movements (presence of local party headquarters, membership, etc.) was also highly determined by these social factors (Tavits, 2013). In addition to these, ethnic cleavages were also important in the post-socialist region (Farkas, 2016).

Since the 1970s, voting behaviour has become more volatile in Western-type democracies (Drummond, 2006), which was explained by the decrease in political alignment and identification of groups created by social cleavages (Dalton, 2002). Class-based voting, which had been very strong until then, weakened significantly due to the disintegration and diversification of the working class itself, the expansion of education, especially higher education, as well as the later turn of left-wing parties towards the market. From the 1980s on, left-wing vote gradually became associated with higher educated electorate, while the same shift did not occur with the high income and high wealth social groups in particular, who are still more supportive of right-wing parties, creating a special "multi-elite party system" (Gethin et al., 2021).

All of this can be traced back to the growing proportion of highly qualified workers appearing in the service sector, who, with their significant incomes, have become part of the population with a higher social status, which greatly reduced the role of the traditional working class. As a result, economic redistribution values were no longer felt to be important by the (former) working class as a whole, so rather a new conservative/progressive cleavage began to emerge (Jansen et al., 2011).

In addition, the social democratic, left-wing parties – formerly representing the welfare state – drifted more and more to the right by applying market fundamentalist policies and state austerity (Korpi & Palme, 2003). In connection with this, Schumacher (2015) investigated what caused all this to happen. His results show that the structure of the party organization greatly influences the root cause and direction of the transformation, because if the given party is organized from below (by activists or trade unions), then it is in the direction of changing their average voters, while if it is dominated from above – by the party leadership –, then the party's ideology and policy are shifted towards the entire population. As a result, left-wing parties with strong, centralized leadership shifted much more in the direction of right-wing values.

While the traditional left represented those with lower incomes and education, i.e. the working class, after a centrist turn like that of Tony Blair, these parties also aimed to reduce and rationalize the measures of the welfare state (Dalton & McAllister, 2015). As a result, these left-behind social groups in many countries, along with the losers of globalization, have turned in the direction of the populist - in some cases the radical and extreme - right (Olsen, 2018). The phenomenon was embodied by the UKIP led by Nigel Farage (Ford & Goodwin, 2014) in the United Kingdom, and in Sweden by the Swedish Democrats led by Jimmie Åkesson (Jylhä et al., 2019; Sümeghy, 2021, 2022). In both cases, the new voters of the radical right were largely selected from former, native workers, who previously voted for the left, had a lower education, worked in blue-collar jobs, and were considered losers of globalization. It is also worth looking for the reason for the realignment of the voting camps in the latter, since these parties were able to provide a simple explanation and point out those responsible (e.g. immigrants or minority groups, refugees who took advantage of the welfare state) who - at least according to them - caused the situation of the economically disadvantaged groups. In addition, the radical right does not reject the welfare state measures supported by former left-wing parties, but, contrary to the previous rhetoric, it rejects inclusivity and supports welfare chauvinism, which would exclude the above-mentioned groups from the range of beneficiaries of services (Norocel, 2016).

While the realignment of voting behaviour in the West has taken a relatively long time, in the post-socialist region it has taken place over the last 30 years, so in many cases the processes have become congested faster than outside the Eastern bloc. While at the time of the regime change, voters in most countries wishing to break with communist dictatorships elected a center-right government, class-based voting did not appear at all (Szelényi et al., 1996), until communist successor leftist and/or Social Democratic parties performed better at the second elections (not in one case, like in Hungary and Poland, they won) (Matějů & Řeháková, 1997). On the one hand, this was explained by the significant number of memberships in the former state party (Angelusz & Tardos, 1995), and, on the other hand, its institutional system (such as trade unions) or rapid adaptation to the political climate of regime change (social democracy instead of communism) (Waller, 1995), although later scholarly literature does not attribute such importance to trade unions (Ágh, 2000). The welfare state of social democracy was a good message (which included the stability and security of the former system) for voters, many of whom experienced the disadvantages of the economic crisis following the regime change (Orenstein, 1998). In connection with this, scholarly literature has shown a considerably strong economic drive in the post-socialist region, especially in Hungary (Stegmaier & Lewis-Beck, 2011).

Based on this, while the weakness of rising unemployment and other macroeconomic indicators in the early 1990s (i.e. the poor economic performance) increased the support of the Socialist Party, during the period following their first rule this reduced the popularity of the former state party (Stegmaier & Lewis-Beck, 2009). Indeed, even during its first government, the MSZP did not implement an economic policy of a classic social democracy, such as stronger state redistributive measures aiming to reduce inequalities, but certain austerity measures were implemented, and at least the merging and growing oppositional political (right) side was able to convey these to the electorate as social restrictions (Csigó, 1997) [e.g. the Bokros package (Köves, 1995)].

The dynamic transformation of voting behaviour following the regime change was typical until the 2000s, thus creating cleavages only slightly different from developed Western democracies (Evans, 2006). In Hungary, identity-based alignments played a greater role than socio-structural cleavages (Fábián, 2005), and, with the exception of the Czech Republic, belonging to lower social (labour) classes in the post-socialist region did not determine the support for welfare state or egalitarian measures (Gijsberts & Nieuwbeerta, 2000). However, identity-based alignment (the left-right self-classification of the voter) does not necessarily rest on value-based thoughts or decisions, but stems from the self-determination of the party which the individual is a believer in (Tóka, 2005). Based on this, we will also use a pair of left and right concepts corresponding to the self-definition of political parties in the analytical part of the study. This type of left-right self-classification of the individual results in the parties' voting bases not suffering a loss due to a possible change in policy, which has helped to create stable voting bases. Despite non-value-based self-determination, these also had stable (economic-based) geographical patterns, as electoral geography research was able to show spatial cleavages at the constituency level (Kovács & Vida, 2015; Mészáros et al., 2007). Based on these, the division between the urban-rural areas and the winners (Western Transdanubia region) and the losers of the (former industrial districts) economic transition was mostly detected in Hungary (Kovács & Dingsdale, 1998). A spatially well-fragmented and not rational but increasingly identity-based alignment can lead to geographical and political polarization, as it does not demand or even tolerate criticism within the camp, thereby reducing accountability (Körösényi, 2013). In addition, the election campaign of the two opposing camps may escalate to the extreme, resulting in the need to destroy the other (Sheiring, 2019) by a series of negative campaigns (Ceka, 2013). At the same time, the period of the left-liberal government coalition between 2006 and 2010 was burdened with scandals and crises. The leak of the "Öszöd speech"⁴ before the 2006 municipal elections caused Fidesz to win many seats and mayoral mandates (Körösényi et al., 2017); for example, in Budapest, it doubled the number of its mayors. Despite the fact that a significant part of the public (mainly from the right) demanded the resignation of the government and new elections (even with bloody street riots), the left-liberal government remained in place, causing political discontent and crisis. The situation was further aggravated by the financial crisis of 2008, which mainly affected lower-income social groups with foreign currency loans rather than high-income ones. This already low level of trust in political institutions, which is characteristic

⁴ In his closed-door speech at Balatonőszöd, the newly elected Socialist Prime Minister Ferenc Gyurcsány admitted that they had lied during the campaign and that austerity measures would be necessary in order to stabilize Hungary's budget, the recording of which was leaked in the fall of 2006 (Bíró-Nagy & Róna, 2013).

of the entire post-socialist region, further reduced, which increased the need for a populist rhetoric (Varga & Freyberg-Inan, 2012). Before the 2010 parliamentary elections, a significant number of analysts were already preparing for the victory of the right wing, which had already become populist at that time (Tóth & Török, 2015).

As a result, the formerly moderate-right-conservative ruling party (Fidesz led by Viktor Orbán) has taken an illiberal, populist and authoritarian turn since 2010. However, similar political formations are not unique in the post-socialist region, as Law and Justice, led by Jaroslaw Kaczynski, is conducting an illiberal and authoritarian government in Poland (Drinóczi & Bień-Kacała, 2019), and ANO2011, led by Andrej Babis, also appeared as a new right-wing populist party in the Czech Republic, which also held a government position between 2017 and 2021 (Maškarinec, 2019). It is worth examining the above-mentioned notions separately, according to which the Hungarian ruling party is populist in the sense that it communicates with extremely simple messages against the existing global system and institutions (Tóth, 2020), such as the anti-Soros campaign (Plenta, 2020), "Stopping" Brussels or xenophobia (Gessler et al., 2021; Kiss & Szabó, 2018). With these messages, it clearly addresses the less educated strata, who are the losers of globalization (Guth & Nelsen, 2019). The illiberalism of the system can also be seen in its self-identification, rhetoric and politics (Rydlinski, 2018), as it contradicts traditional liberal values in its communication (Körösényi & Patkós, 2017), and authoritarian, as the leader of the ruling party implements and maintains strong, centralized, authoritarian leadership (Enyedi, 2020), prebendal authority (Szelenyi, 2016) or plebiscitary leadership (Körösényi, 2019). The study seeks to explore the spatial context of this transformation through changes in the social composition and spatiality of voting bases.

METHODS

The research uses mathematical-statistical methods to analyse the realignment of Hungarian voting behaviour at the constituency level. First, the results of the last three parliamentary elections held between 2014 and 2022 were used in order to examine the electoral spatial structure and its transformation. In the analysis, voter turnout and the share of parliamentary party supports were included as input parameters, to reduce their number a principal component analysis was performed. Principal components formed in this way adequately characterize the different aspects of the spatiality of voting behaviour, but to examine the spatial structure and its transformation, a K-means clustering was performed to classify the different types of constituencies. Hungarian electoral spatial structure can be determined and characterized by the voting behaviour indicators of the clusters' constituencies (Appendix 1), as well as by the location of these clusters (Figure 1).

Afterwards, the election results were compared with various socio-economic indicators using the Pearson and Spearman correlation coefficient (Figure 2) in order to examine the transformation of previously observed socio-economic cleavages (Kovács, 2000; Vida & Kovalcsik, 2018). Spearman rank correlation was used to examine the urban-rural division, since a four-level ordinal scale was used to characterize it (rural constituencies were given 1, constituencies with a town of at least 50,000

people were given 2, constituencies with regional centre were given 3 and the capital's constituencies were given 4). Pearson correlation coefficients were calculated to detect ethnic (proportion of Romani), social status (age, education, proportion of married people), economic status (income, occupational categories, unemployment) and religious (proportion of Catholics, Calvinists, Atheists) cleavages. With age groups and the proportion of married people, we measure the composition of households, since a young university student, a single pensioner or a large family represent a completely different social status. For the occupational categories, the ISCO categorization was used, and the groups thus generated were organized into three status categories (high, medium and low) based on the method already used in the literature (Marcińczak et al., 2015). Some of the indicators are collected by the Hungarian Central Statistical Office (HCSO) [1] only during censuses – the last one in Hungary at the time of writing the study was in 2011 –, so the datasets of the given year could only be used for the other indicators (of course, these were indicated in the corresponding tables of the results).

RESULTS

A similar analysis of the 2014 and 2018 parliamentary elections has already been published in the journal Modern Geográfia (Vida & Kovalcsik, 2018); however, in order to understand the results of the 2022 elections, it is necessary to compare them with the two previous elections, therefore, in this study we also included some of the results contained therein, supplemented of course with the discussion of the most recent (2022) election results. Accordingly, first the context of each election was described, then continued with the spatial dimension of voting behaviour, and finally the support of each party was linked to various socio-economic indicators.

The context of Hungarian parliamentary elections between 2014 and 2022

After its landslide election victory in 2010 (national average: 53%), Fidesz led by Viktor Orbán won three consecutive parliamentary elections and – partly due to the peculiarities of the electoral system [created by them in 2011 (Kovács & Vida, 2015; Kovalcsik et al., 2019; Vida, 2020)] – received two-thirds majority in the legislature (which is the constitutional majority in the Hungarian system) on all three occasions. This performance was achieved with 43.6% national support in 2014, 47.4% in 2018, and 52.3% in 2022 (Appendix 1). So, since 2014, Fidesz has had some significantly growing support, which was partly due to the structure and movements of other political parties. Because in 2010, the former bipolar party system broke up and, besides the governing party, two political blocs were formed from both the left and the right.

The bigger governing party before 2010, the MSZP – the successor of the communist state party – was on the left, but later the split (Democratic Coalition, hereinafter DK) and newly formed political movements (Politics Can Be Different – Hungary's Green Party, hereinafter LMP; Dialogue, hereinafter P; Together, hereinafter Együtt) further increased the fragmentation of party structure on this side. In 2014, these parties (except for the green LMP) ran together at the election (Unity), but

the formation that previously (in 2002 and 2006) received almost half of the votes received only 26% nationally.

In the far right, the Movement for a Better Hungary (hereinafter Jobbik) gained strength following the political crisis of 2006 and the economic and the resulting social crisis of 2008. Jobbik began to gain strength largely in those areas where the socialist party previously collected the votes from the losers of globalization. These were traditionally industrial regions established in the earlier state socialist period, in which the socialist tradition had a strong cultural identity, but they fell into crisis after the regime change due to the economic transition. However, the political and economic crisis (the latter mainly affected those with lower incomes) overwhelmed the trust in the traditional political elite and resulted in the success of populist rhetoric in the most vulnerable social groups. Moreover, one of Jobbik's main messages was directed against a minority group, the Romani people, who live in the economically most disadvantaged areas (peripheral, small villages near former industrial fields). With this welfare chauvinist rhetoric, Jobbik was able to gain popularity in the low status, majority society. The party thus achieved 20% support in 2014.

A highly significant turn in Viktor Orbán's rhetoric began during the migration crisis of 2015, with which he began to use the themes and rhetoric (populism and welfare chauvinism) of the far-right. At the 2018 election, the leftist parties ran separately but coordinated their individual candidates, while the moderating Jobbik approached the other opposition (leftist) parties (largely due to the rhetorical change of Fidesz) but did not withdraw any of its candidates. Nevertheless, a significant number of voters supported the opposition candidate they considered to be the strongest, regardless of which party they voted for on the list [strategic voting (Alvarez & Nagler, 2000; Blais et al., 2001)]. That is why Fidesz won the same number of seats in the legislature as in 2014, even though it achieved a point three percentages higher national result. The further shift of Fidesz to the far-right and the previous positive experiences from coordination motivated the opposition parties (including Jobbik) to unite for the 2022 election. However, the united opposition suffered a huge defeat due to the new political movement that appeared on the far-right (Our Homeland Movement, hereinafter Mi Hazánk) and the abandonment of their former voters (of Jobbik)(Bódi & Kovalcsik, 2022). In the following, the spatial and socio-economic aspects of these processes were analysed.

The spatial structure of the voting behaviour

To describe the spatial structure of Hungarian voting behaviour, first a principal component analysis was created, thereby creating two new variables that cover 86.32% of the spatial distribution of parties' support. The first component correlates with the support of almost all parties with high significance, while the second component shows a higher correlation with the support of Fidesz in 2014 (Table 1). However, this latter correlation will almost completely disappear by 2022, and the governing party coalition's support also shows a strong correlation with the first component. Consequently, during the last three parliamentary elections, the spatial distribution of support for Fidesz was mostly transformed. In the following, we examined which areas were affected by this realignment.

	Parties	Comp 1	Comp 2
2014	Fidesz-KDNP	-0.567	0.798
	MSZP-Együtt-DK-PM-MLP (Unity)	0.927	-0.322
	LMP	0.942	0.150
	Jobbik	-0.854	-0.401
2018	Fidesz-KDNP	-0.831	0.530
	Jobbik	-0.744	-0.527
	MSZP-P	0.811	-0.339
	DK	0.854	-0.236
	LMP	0.907	0.179
2022	Fidesz-KDNP	-0.928	0.286
	DK-Jobbik-LMP-Momentum-MSZP-P(United for Hungary)	0.942	-0.289
	Mi Hazánk	-0.727	-0.238

Table 1. Correlation coefficients between the parties' support and the principal components

Extraction Method: Principal Component Analysis

This was achieved with a K-means cluster analysis of the two principal components, with which four clusters were formed (Table 2). The 2014 Fidesz support had correlation coefficient with the opposite sign with the two different components, one of which became stronger and the other became non-significant, so the change occurred in the clusters that have centres with the same sign. In the purple cluster, the mean value of both components is negative, which means that in 2014 Fidesz did not get the most voters in these areas, although it was around the national average in areas where previously (in 2002 and 2006) the socialists were mostly stronger, but in 2022 a highly negative correlation value (between the comp 1 and Fidesz's support) shows that at the last election they got most of their voters from here, after the orange cluster. Moreover, Jobbik's support reached its maximum here in 2014 (Appendix 1), so both the far-right and the moderate right benefited in these areas from the collapse of the left in 2010. The purple cluster clearly contained the previously described unfavourable economic areas (Figure 1) besides the orange cluster (Table 3). As a result, support for Fidesz clearly increased the most in the economically disadvantaged areas, while in the purple cluster it integrated former Jobbik voters, while in the orange areas it was already able to rise from a high base.





Source: own editing



Figure 1. The spatiality of voting behaviour and its transformation in Hungary

Source: own editing based on the National Electoral Office [2].

Low status (%)	50.08	49.78	25.88	31.76
Income (HUF/month)	246.025	253.876	375.577	324.365
High status (%)	16.03	16.41	36.42	27.07
Educated (%)	12.50	12.71	32.75	24.15
Urban-Rural (4 to 1)	1.37	1.21	2.71	3.42

Table 3. Averages of social indicators in each cluster

Source: own editing based on the Hungarian Central Statistical Office [1].

The other significant change occurred in the blue cluster, because there the mean value of both components is positive, so in 2014 Fidesz was still strong in these areas, while by 2022 its support has relatively decreased [in 2014 it was still above the national average, while in 2022 the ruling party was significantly below average (Appendix 1)]. This area can be considered the traditional base of the moderate right, as it is characterized by high income, suburbanization or high (mainly industrial or technical) employment (Figure 1). From the relative decrease, it can be assumed that the people living here have not yet turned away en masse from the ruling party coalition, but some attrition is visible and that Fidesz does not gain the expansion of its voters from there. In addition, the districts belonging to the red cluster remained the last strongholds of the left and in 2022 the united opposition. These are mostly the constituencies of the capital (Budapest) and rural regional centres (Szeged, Pécs, Nyíregyháza, Tatabánya), so it mostly contains the urban areas of the country. With this, it can be concluded that the urban-rural division appears more strongly in the Hungarian voting behaviour.

The socio-economic influence on the voting behaviour

The previous findings were partly supported and partly supplemented by the inclusion of socio-economic indicators (Figure 2). Based on these, the social cleavages did not disappear from voting behaviour, only a realignment can be observed. Correlations of Fidesz's support with the classic social status cleavages (the proportion of married people and young people (under 14) – which is essentially an indicator of families –, and the ratio of Christians) remain unchanged, but the relationships along the economic (the ratio of low status and unemployment) and ethnic (the proportion of Romani people) dimension have changed significantly, underpinning the previous finding that Fidesz gained a significant number of voters from Jobbik's camp, since the far-right's economic relationships have changed in the exact opposite direction. In addition, the negative correlations of Fidesz's support with indicators (income, high status, educated people, urban-rural division) that positively measure economic development have significantly strengthened. This also supports the statement that the populist rhetoric of the ruling party coalition primarily appeals to those with lower incomes and the more economically vulnerable.

The political left, running together (2014) or separately (2018), as well as united with Jobbik (2022), shows the same system of social cleavages between 2014 and 2022 (Figure 2). Their relationships with high social and economic status are as strong as a niche party (such as LMP had in 2014 and 2018), so it can be assumed that they did not manage to appeal to any new social groups at the last three elections. In addition, the relationships of the united opposition in 2022 also show that far-right (previous Jobbik) voters did not join, but mostly switched votes to Fidesz. Along with this, it can be concluded that the newly formed Mi Hazánk did not integrate old Jobbik voters, but rather had a less ethnically divided (but essentially right-wing) voting base. Furthermore, the support of Mi Hazánk was balanced at different levels of the settlement hierarchy (except for Budapest, where it was extremely low) and it basically obtained the most votes in the south-eastern region of the country (where the party president also comes from). In addition to all this, the party is much more popular among low-status employed than among unemployed people, who previously (2014 and 2018) voted for Jobbik, but in 2022 voted much more for Fidesz.



Figure 2. The socio-economic cleavages of political parties' support

Source: own editing based on the Hungarian Central Statistical Office [1] and National Electoral Office [2].

CONCLUSIONS

Based on our present study, traditional social cleavages still have a strong influence on the spatial distribution of voting behaviour in Hungary. Nevertheless, while the ruling right-wing party (Fidesz) had the ability to make a move to the direction of different social groups (i.e. lower-income groups, people living in areas with a higher Romani population ratio, etc.), thus attracting new electorates among them, the left-wing opposition is still associated with and supported by social groups that are quite identical to those in 2018 and 2014. This was unquestionably one of the most important reasons of the landslide victory of the governmental party over the united opposition in 2022. One of the strongest traditional cleavages is the urban-rural divide: while Fidesz has always been dominant in rural Hungary, the correlation becomes even stronger by each election year. Similar to urban-rural divide, social status must also be mentioned as a long-lasting determinant by which low-status electo-

rate is attracted by Fidesz as well; however, the correlation became twice as strong from 2014 to 2022, due to the fact that the rhetorical approach of the government has changed in the populist direction.

Some of the observed social indicators went through a significant transformation and became more important to determine the spatial structure of the parties' support. The ratio of the Romani minority is definitely an interesting case. In 2014, in the explanation of Fidesz support, we could not mention this indicator, as the correlation value was nearly 0, while it was quite determinant for the far-right Jobbik that time. By 2022, it became almost as determinant for Fidesz as it was for Jobbik in 2014, which implies the failure of the united opposition forces to integrate the former Jobbik electorate, while Fidesz was able to do that. This was also one of the most important findings of the cluster analyses when it comes to the characteristics of the purple cluster.

As it was argued, traditional class-based political landscapes have shifted to a much more fragmented and identity-based alignment globally, since the traditional redistributive coalitions were broken, and groups, suffering from high inequality of different kinds, became more fragmented. In most western countries, left parties are dominantly supported by higher educated groups, while high-income people still support the right. This phenomenon was called the transformation towards the "multi-elite party system;" however, this was already challenged in the US, at the last presidential elections, where the top 10% earners voted for the Democrat candidate, for the first time in history (Gethin et al., 2021). In Hungary, we observed something similar in the geographical space, in a sense that the top-income and top-educated social groups gradually turn away from the ruling right-wing forces (Figure 2, "Income" and "High Status" correlation values and their dynamic). In the US, it was referred to as the "Trump effect," and we also have a reason to believe that prime minister Viktor Orbán also has an important personal effect on shaping this changing voting behaviour.

REFERENCES

- Ågh, A. (2000). Party Formation Process and the 1998 Elections in Hungary: Defeat as Promoter of Change for the HSP. *East European Politics and Societies: And Cultures, 14*(2), 288–315. <u>https:// doi.org/10.1177/0888325400014002004</u>
- Alvarez, R. M., & Nagler, J. (2000). A new approach for modelling strategic voting in multiparty elections. ons. British Journal of Political Science, 30(1), 57–75. <u>https://doi.org/10.1017/S000712340000003X</u>
- Angelusz, R., & Tardos, R. (1995). A választói magatartás egy mögöttes pillére. Politikatudományi Szemle, 4(3), 5–18.
- Berelson, B. R., Lazarsfeld, P. F., & McPhee, W. N. (1954). Voting: A Study of Opinion Formation in a Presidential Campaign. The University of Chicago Press.
- Bíró-Nagy, A., & Róna, D. (2013). Rational Radicalism: Jobbik's road to the Hungarian Parliament. In G. Mesežnikov, O. Gyárfášová, & Z. Bútorová (Eds.), *Alternative Politics? The Rise of New Political Parties in Central Europe* (pp. 149–184). Institute for Public Affairs.
- Blais, A., Nadeau, R., Gidengil, E., & Nevitte, N. (2001). Measuring strategic voting in multiparty plurality elections. *Electoral Studies*, 20(3), 343–352. <u>https://doi.org/10.1016/S0261-3794(00)00017-2</u>

- Bódi, M., & Kovalcsik, T. (2022). Hol vannak az ellenzéki választók? A jobbikos szavazók távolmaradásának és a Márki-Zay Péter-hatás mítoszának kvantitatív földrajzi vizsgálata. *Ellensúly*, 1–2, megjelenés alatt.
- Ceka, B. (2013). The Perils of Political Competition: Explaining Participation and Trust in Political Parties in Eastern Europe. Comparative *Political Studies*, 46(12), 1610–1635. <u>https://doi.org/10.1177/0010414012463908</u>
- Csigó, P. (1997). A Bokros-csomag jelentősége a politikai diskurzusban. *Politikatudományi Szemle,* 6(4), 27–56.
- Dalton, R. J. (2002). The Decline of Party Identifications. In *Parties Without Partisans* (Issue February 2021, pp. 19–36). Oxford University Press. <u>https://doi.org/10.1093/0199253099.003.0002</u>
- Dalton, R. J., & McAllister, I. (2015). Random Walk or Planned Excursion? Continuity and Change in the Left–Right Positions of Political Parties. *Comparative Political Studies*, 48(6), 759–787. <u>https:// doi.org/10.1177/0010414014558257</u>
- Dingsdale, A., & Kovacs, Z. (1996). A return to socialism: The Hungarian general election of 1994. *Geography*, 81(3), 267–272.
- Drinóczi, T., & Bień-Kacała, A. (2019). Illiberal Constitutionalism: The Case of Hungary and Poland. *German Law Journal*, 20(8), 1140–1166. <u>https://doi.org/10.1017/glj.2019.83</u>
- Drummond, A. J. (2006). Electoral volatility and party decline in western democracies: 1970–1995. *Political Studies, 54*(3), 628–647. <u>https://doi.org/10.1111/j.1467-9248.2006.00617.x</u>
- Enyedi, Z. (2020). Right-wing authoritarian innovations in Central and Eastern Europe. *East European Politics*, *36*(3), 363–377. <u>https://doi.org/10.1080/21599165.2020.1787162</u>
- Evans, G. (2006). The social bases of political divisions in post-communist Eastern Europe. Annual *Review of Sociology, 32,* 245–270. <u>https://doi.org/10.1146/annurev.soc.32.061604.123144</u>
- Fábián, Z. (2005). Törésvonalak és a politikai ideológiai azonosulás szerepe a pártszimpátiák magyarázatában. In R. Angelusz & R. Tardos (Eds.), *Törések, hálók, hidak. Választói magatartás és politikai tagolódás* (pp. 207–242). Demokrácia Kutatások Magyar Központja Alapítvány.
- Farkas, G. (2016). A politikai és etnikai földrajz határmezsgyéin Választási földrajzi elemzések Dél-Szlovákia járásaiban. *Modern Geográfia*, *11*(2), 19–35.
- Ford, R., & Goodwin, M. (2014). Understanding UKIP: Identity, Social Change and the Left Behind. Political Quarterly, 85(3), 277–284. <u>https://doi.org/10.1111/1467-923X.12099</u>
- Gessler, T., Tóth, G., & Wachs, J. (2021). No Country for Asylum Seekers? How Short-Term Exposure to Refugees Influences Attitudes and Voting Behavior in Hungary. *Political Behavior*, 2021. <u>https:// doi.org/10.1007/s11109-021-09682-1</u>
- Gethin, A., Martínez-Toledano, C., & Piketty, T. (2021). Brahmin Left Versus Merchant Right: Changing Political Cleavages in 21 Western Democracies, 1948–2020. *The Quarterly Journal of Economics*, 137(1), 1–48. <u>https://doi.org/10.1093/qje/qjab036</u>
- Gijsberts, M., & Nieuwbeerta, P. (2000). Class Cleavages in Party Preferences in the New Democracies in Eastern Europe: A comparison with Western democracies. *European Societies*, 2(4), 397–430. <u>https://doi.org/10.1080/14616690020014343</u>

- Guth, J. L., & Nelsen, B. F. (2019). Party choice in Europe: Social cleavages and the rise of populist parties. *Party Politics*, 1–12. https://doi.org/10.1177/1354068819853965
- Ishiyama, J. (2000). Candidate Recruitment, Party Organisation and the Communist Successor Parties: The Cases of the MSzP, the KPRF and the LDDP. *Europe-Asia Studies*, *52*(5), 875–896. https://doi.org/10.1080/713663097
- Jansen, G., De Graaf, N. D., & Need, A. (2011). Class voting, social changes and political changes in the Netherlands 1971-2006. *Electoral Studies*, 30(3), 510–524. <u>https://doi.org/10.1016/j.elect-stud.2011.02.005</u>
- Jylhä, K. M., Rydgren, J., & Strimling, P. (2019). Radical right-wing voters from right and left: Comparing Sweden Democrat voters who previously voted for the Conservative Party or the Social Democratic Party. *Scandinavian Political Studies*, 42(3–4), 220–244. <u>https://doi.org/10.1111/1467-9477.12147</u>
- Kiss, B., & Szabó, G. (2018). Constructing political leadership during the 2015 European migration crisis: The Hungarian case. *Central European Journal of Communication*, 11(1), 9–24. <u>https://doi.org/10.19195/1899-5101.11.1(20).1</u>
- Körösényi, A. (2013). Political polarization and its consequences on democratic accountability. *Corvinus Journal of Sociology and Social Policy*, 4(2), 3–30.
- Körösényi, A. (2019). The theory and practice of plebiscitary leadership: Weber and the Orbán regime. *East European Politics and Societies*, *33*(2), 280–301. <u>https://doi.org/10.1177/0888325418796929</u>
- Körösényi, A., Ondré, P., & Hajdú, A. (2017). A "Meteoric" Career in Hungarian Politics. In M. Bennister, B. Worthy, & P. Hart 't (Eds.), *The Leadership Capital Index?: A New Perspective on Political Leadership* (Vol. 1, pp. 82–100). Oxford University Press. <u>https://doi.org/10.1093/oso/9780198783848.003.0005</u>
- Körösényi, A., & Patkós, V. (2017). Liberal and illiberal populism. The leadership of berlusconi and Orbán. Corvinus Journal of Sociology and Social Policy, 8(3), 315–337. <u>https://doi.org/10.14267/ CJSSP.2017.3S.14</u>
- Korpi, W., & Palme, J. (2003). New Politics and Class Politics in the Context of Austerity and Globalization: Welfare State Regress in 18 Countries, 1975-95. *American Political Science Review*, 97(3), 425–446. https://doi.org/10.1017/S0003055403000789
- Kovács, Z. (1993). The geography of Hungarian parliamentary elections 1990. In J. O'Loughlin & H. van der Wusten (Eds.), *The New Political Geography of Eastern Europe* (pp. 255–273). Belhaven Press.
- Kovács, Z. (2000). Voksok a térben. A magyar parlamenti választások földrajzi jellemzői. In A. Bőhm, F. Gazsó, I. Stumpf, & G. Szoboszlai (Eds.), *Parlamenti választások 1998* (pp. 100–115). Századvég Kiadó.
- Kovács, Z., & Dingsdale, A. (1998). Whither East European democracies? The geography of the 1994 Hungarian parliamentary election. *Political Geography*, 17(4), 437–458. <u>https://doi.org/10.1016/ S0962-6298(97)00024-3</u>
- Kovács, Z., & Vida, G. (2015). Geography of the new electoral system and changing voting patterns in Hungary. *Acta Geobalcanica*, *1*(2), 55–64. <u>https://doi.org/10.18509/agb.2015.06</u>

- Kovalcsik, T., Vida, G., & Dudás, G. (2019). Az országgyűlési választókerületek kompaktságának elemzése Magyarországon. *Területi Statisztika*, 59(2), 188–218. https://doi.org/10.15196/TS590204
- Köves, A. (1995). After the Bokros package: what next? (Dilemmas and alternatives of Hungarian economic policy. *Acta Oeconomica*, 47(3–4), 249–265.
- Lipset, S. M., & Rokkan, S. (1967). Party Systems and Voter Alignments: Cross-National Perspectives. The Free Press.
- Marcińczak, S., Tammaru, T., Novák, J., Gentile, M., Kovács, Z., Temelová, J., Valatka, V., Kährik, A., & Szabó, B. (2015). Patterns of Socioeconomic Segregation in the Capital Cities of Fast-Track Reforming Postsocialist Countries. *Annals of the Association of American Geographers*, 105(1), 183–202. <u>https://doi.org/10.1080/00045608.2014.968977</u>
- Martis, K. C., Kovacs, Z., Kovacs, D., & Peter, S. (1992). The geography of the 1990 Hungarian parliamentary elections. *Political Geography*, 11(3), 283–305. https://doi.org/10.1016/0962-6298(92)90030-W
- Maškarinec, P. (2019). The rise of new populist political parties in Czech parliamentary elections between 2010 and 2017: the geography of party replacement. Eurasian Geography and Economics, 60(5), 511–547. <u>https://doi.org/10.1080/15387216.2019.1691928</u>
- Matějů, P., & Řeháková, B. (1997). Turning Left or Class Realignment? Analysis of the Changing Relationship Between Class and Party in the Czech Republic, 1992-96. *East European Politics and Societies: And Cultures, 11*(3), 501–542. <u>https://doi.org/10.1177/0888325497011003004</u>
- Mészáros, J., Solymosi, N., & Speiser, F. (2007). Spatial distribution of political parties in Hungary 1990–2006. *Political Geography*, 26(7), 804–823. <u>https://doi.org/10.1016/j.polgeo.2007.06.002</u>
- Norocel, O. C. (2016). Populist radical right protectors of the folkhem: Welfare chauvinism in Sweden. *Critical Social Policy*, 36(3), 371–390. <u>https://doi.org/10.1177/0261018315621991</u>
- Olsen, J. (2018). The left party and the AfD: Populist competitors in eastern Germany. *German Politics and Society*, *36*(1), 70–83. <u>https://doi.org/10.3167/gps.2018.360104</u>
- Orenstein, M. (1998). A Genealogy of Communist Successor Parties in East-Central Europe and the Determinants of Their Success. *East European Politics and Societies*, 12(3), 472–499. <u>https://doi.org/10.1177/0888325498012003004</u>
- Plenta, P. (2020). Conspiracy theories as a political instrument: utilization of anti-Soros narratives in Central Europe. *Contemporary Politics*, 26(5), 1–19. <u>https://doi.org/10.1080/13569775.2020.17813</u> 32
- Rydlinski, B. M. (2018). Viktor Orbán First among illiberals? Hungarian and Polish steps towards populist democracy. Online Journal Modelling the New Europe, 26, 95–107. <u>https://doi.org/10.24193/</u> OJMNE.2018.26.07
- Schumacher, G. (2015). When does the left do the right thing? A study of party position change on welfare policies. *Party Politics*, 21(1), 68–79. <u>https://doi.org/10.1177/1354068812470505</u>
- Sheiring, G. (2019). Egy demokrácia halála: Az autoriter kapitalizmus és a felhalmozó állam felemelkedése Magyarországon. Napvilág Kiadó.
- Shin, M. E. (2015). Electoral Geography in the Twenty-First Century. In J. Agnew, V. Mamadouh, A. J. Secor, & J. Sharp (Eds.), *The Wiley Blackwell Companion to Political Geography* (pp. 279–296). John Wiley & Sons, Ltd. <u>https://doi.org/doi:10.1002/9781118725771.ch21</u>

- Stegmaier, M., & Lewis-Beck, M. S. (2009). Learning the economic vote: Hungarian forecasts, 1998-2010. *Politics and Policy*, *37*(4), 769–780. <u>https://doi.org/10.1111/j.1747-1346.2009.00197.x</u>
- Stegmaier, M., & Lewis-Beck, M. S. (2011). Shocks and oscillations: The political economy of Hungary. *Electoral Studies*, 30(3), 462–467. <u>https://doi.org/10.1016/j.electstud.2010.11.010</u>
- Sümeghy, D. (2021). The impact of the local conservative climate on generalised trust in Sweden. *Modern Geográfia*, 16(2), 113–133. <u>https://doi.org/10.15170/mg.2021.16.02.06</u>
- Sümeghy, D. (2022). Halo effect of diversification and polarization, and the role of relative deprivation based on the 2018 Swedish parliamentary elections results. *Regional Statistics, 12*(1), Online First. https://doi.org/10.15196/RS120106
- Szelenyi, I. (2016). Weber's theory of domination and post-communist capitalisms. *Theory and Society*, 45(1), 1–24. <u>https://doi.org/10.1007/s11186-015-9263-6</u>
- Szelényi, I., Fodor, É., & Hanley, E. (1996). Baloldali fordulat a volt szocialista országokban újjáéled-e az osztályszemlélet? *Eszmélet*, 8(29), 51–89.
- Tar, F. (2015). Képviselők vagy szószólók? Kisebbségi képviselőválasztás Magyarországon. Modern Geográfia, 10(2), 25–40.
- Tavits, M. (2013). Post-Communist Democracies and Party Organization. Cambridge University Press. https://doi.org/10.1017/CBO9781139565196
- Tóka, G. (2005). A magyarországi politikai tagoltság nemzetközi összehasonlításban. In R. Angelusz & R. Tardos (Eds.), *Törések, hálók, hidak: Választói magatartás és politikai tagolódás Magyarországon* (pp. 17–64). Demokrácia Kutatások Magyar Központja Alapítvány.
- Tóth, C., & Török, G. (2015). Négy választás Magyarországon A magyar politika az elmúlt 12 évben (2002–2014). Osiris Kiadó.
- Tóth, T. (2020). Target the enemy: explicit and implicit populism in the rhetoric of the Hungarian right. *Journal of Contemporary European Studies*, 28(3), 366–386. <u>https://doi.org/10.1080/147828</u> 04.2020.1757415
- Varga, M., & Freyberg-Inan, A. (2012). The threat of selective democracy. Popular dissatisfaction and exclusionary strategy of elites in East Central and Southeastern Europe. *Southeastern Europe*, 36(3), 349–372. <u>https://doi.org/10.1163/18763332-03603004</u>
- Vida, G. (2020). A magyar országgyűlési választási rendszer földrajzi torzulásainak vizsgálata. Doktori (PhD értekezés) SZTE TTIK Földtudományok Doktori Iskola.
- Vida, G., & Kovács, Z. (2017). Magyarország átalakuló választási földrajza a 2010-es és a 2014-es parlamenti választások tükrében. Földrajzi Közlemények, 141(2), 125–138.
- Vida, G., & Kovalcsik, T. (2018). Magyarország választási földrajzi sajátosságai a 2014-es és a 2018-as parlamenti választások tükrében. *Modern Geográfia*, 13(4), 15–30. <u>http://www.moderngeografia</u>. <u>eu/wp-content/uploads/2019/02/2018_IV_02_vida-kovalcsik.pdf</u>
- Waller, M. (1995). Adaptation of the Former Communist Parties of East-Central Europe: A Case of Social-Democratization? *PartyPolitics*, 1(4),473–490.https://doi.org/10.1177/1354068895001004003

Online sources

- [1] The website of the Hungarian Central Statistical Office: https://www.ksh.hu/stadat
- [2] Hungarian electoral results: https://www.valasztas.hu/1990-2019_eredmenyek

APPENDIX

Appendix 1. Party supports of the cluster created

						National average
2014	Voter turnout	58.2%	59.3%	69.5%	63.9%	61.1%
	Fidesz-KDNP	41.8%	49.0%	44.0%	36.6%	43.6%
	Unity	23.7%	21.0%	31.1%	35.6%	26.2%
	LMP	3.7%	4.3%	8.6%	8.0%	5.5%
	Jobbik	26.5%	21.8%	12.5%	15.5%	20.7%
2018	Voter turnout	66.2%	68.4%	76.6%	71.7%	69.4%
	Fidesz-KDNP	47.7%	54.0%	43.4%	38.1%	47.4%
	Jobbik	24.9%	19.8%	13.4%	16.4%	19.8%
	MSZP-P	11.1%	9.7%	14.1%	18.0%	12.4%
	DK	4.9%	4.2%	7.1%	8.0%	5.6%
	LMP	5.5%	5.9%	11.4%	9.6%	7.3%
2022	Voter turnout	65.6%	68.7%	77.1%	71.1%	69.3%
	Fidesz-KDNP	54.8%	58.6%	45.2%	42.1%	52.3%
	United for Hungary	33.6%	29.7%	43.0%	45.9%	36.0%
	Mi Hazánk	7.1%	6.6%	4.4%	5.2%	6.1%

Appendix 2. The correlation coefficients of the party support

Socio-economic indicators	2014			2018					2022			
	Fidesz- KDNP	Unity	LMP	Jobbik	Fidesz- KDNP	Jobbik	MSZP-P	DK	LMP	Fidesz- KDNP	United for Hungary	Mi Hazánk
Urban-Rural***	-0,595**	0,771**	0,718**	-0,597**	-0,706**	-0,573**	0.756**	0.719**	0.714**	-0.759**	0.776**	-0.518**
Roma (2011)	0.072	-0.408**	-0.671**	0.631**	0.349**	0.545**	-0.335**	-0.422**	-0.626**	0.581**	-0.508**	0.185
Married (2011)	0.541**	-0.533**	-0.432**	0.254**	0.559**	0.189	-0.496**	-0.456**	-0.356**	0.519**	-0.544**	0.252**
Educated (2011)	-0.372**	0.758**	0.897**	-0.808**	-0.664**	-0.764**	0.663**	0.702**	0.885**	-0.792**	0.824**	-0.737**
Catholics (2011)	0.366**	-0.344**	-0.296**	0.173	0.442**	0.113	-0.396**	-0.334**	-0.279**	0.384**	-0.418**	0.243*
Calvinists (2011)	0.196*	-0.341**	-0.389**	0.348**	0.295**	0.236*	-0.195*	-0.324**	-0.357**	0.404**	-0.328**	-0.01
Atheists (2011)	-0.481**	0.357**	0.305**	-0.108	-0.528**	0.023	0.359**	0.348**	0.294**	-0.473**	0.450**	0.002
Young people	0.152	-0.261**	-0.299**	0.249*	0.139	0.217*	-0.198*	-0.184	-0.153	0.321**	-0.316**	0.101
Elders	-0.179	0.402**	0.488**	-0.434**	-0.301**	-0.407**	0.334**	0.342**	0.427**	-0.422**	0.425**	-0.256**
Employment	0.167	-0.1	0.064	-0.04	0.053	-0.009	-0.050	-0.012	0.068	-0.333**	0.325**	-0.125
Unemployment	0.105	-0.526**	-0.759**	0.755**	0.412**	0.624**	-0.392**	-0.525**	-0.692**	0.560**	-0.508**	0.343**
Income	-0.360**	0.759**	0.900**	-0.819**	-0.651**	-0.725**	0.576**	0.735**	0.883**	-0.781**	0.786**	-0.686**
High status	-0.369**	0.732**	0.884**	-0.779**	-0.658**	-0.766**	0.640**	0.693**	0.899**	-0.797**	0.817**	-0.712**
Middle status	-0.496**	0.769**	0.750**	-0.683**	-0.697**	-0.560**	0.667**	0.732**	0.699**	-0.751**	0.722**	-0.383**
Low status	0.442**	-0.818**	-0.930**	0.834**	0.732**	0.772**	-0.711**	-0.771**	-0.916**	0.868**	-0.872**	0.671**
Agriculture emp.	0.547**	-0.709**	-0.615**	0.483**	0.652**	0.391**	-0.576**	-0.659**	-0.622**	0.654**	-0.687**	0.513**

Ez a mű a Creative Commons Nevezd meg! – Ne add el! – Ne változtasd! 4.0 nemzetközi licence-feltételeinek megfelelően felhasználható. (CC BY-NC-ND 4.0) <u>https://creativecommons.org/licenses/by-nc-nd/4.0/</u>

This open access article may be used under the international license terms of Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 (CC BY-NC-ND 4.0) <u>https://creativecommons.org/licenses/by-nc-nd/4.0/</u>

