Strategic voting is an elusive concept that is theorized to exist according to models of rational voter behavior but is especially challenging to prove reliably or to measure accurately. To put simply, it occurs when citizens decide to vote against their preferred parties or candidates in hope of influencing the results more effectively. For strategic voting to be effective, voters need to be well-informed and well-coordinated, so that they can properly adjust to a common strategy. The 2018 Hungarian parliamentary elections provide a unique opportunity to explore certain aspects of this phenomenon. Due to the nature of the Hungarian mixed member electoral system, strategic voting is possible by casting split-ticket ballots, allowing voters to act tactically and to support their first-preferred political group at the same time. Such behavior was intensively propagated in 2018 and it eventually became one of the main topics of the election campaign with numerous civilian and political actors urging opposition voters to strategically split their ballots with the objective of removing the Fidesz-KDNP coalition from government. The results of the election and the campaign activities of the candidates allow us to look into this attempt at facilitating large-scale voter coordination. The relevance of social media is further emphasized by the media environment in Hungary, where online platforms are the main channel of opposition political communication. This paper first provides a theoretical framework for strategic voting and describes the political and institutional context of the Hungarian elections. Then it analyses the Facebook activity of single-member constituency candidates in relation to strategic voting. Finally, it assesses the effectiveness of strategically split tickets on the election outcome.

1. THEORETICAL FRAMEWORK

This paper examines an overlap of several closely related but still separate phenomena and consequently it is based on a wide theoretical framework of strategic voting, split-ticket voting, voter coordination and the effects of social media on modern political campaigns. These were all influential factors during the 2018 Hungarian elections and their interplay greatly contributed to the final outcome. The expressions “strategic voting” and “tactical voting” will be used interchangeably in this paper. While the relevant literature mainly applies the term “strategic” to the voter behavior described here, “tactical” was used more often in Hungary recently. The distinction between the two could be made as the act of casting such a ballot is actually the tactic that is necessary to achieve a strategic goal like removing a party from government for example.

Strategic voting is defined as the choice made by a voter to move electoral support from the first-preferred party or candidate to another one because of the perception that the latter has a better chance at winning (Blais and Nadeau 1996). This is often called the “wasted-votes” theory and its central element is that voters want to influence the election outcome. At the same time there is an alternative explanation for switching the vote from the first-preference, according to which the electorate wants to influence the composition of governing coalitions (Gschwend 2007, Plescia 2017) and thus major party voters may support minor parties to achieve to desired configuration of seat shares. Such votes are often called strategic votes, ballots that contain the original first preference are on the other hand referred to as sincere votes. The concept of strategic voting is often traced back to Anthony Downs who described it mainly as a feature of multiparty systems in his seminal work, An economic theory of democracy (Downs 1957: 48). Switching one’s vote to a second-preferred candidate (or party) in a purely two-party context probably indicates

indifference to the outcome and not strategic behavior. The theoretical basis of such conscious decisions obviously lies in a model that assumes voters are acting rationally and not expressively in the polling booth. This concept was further improved upon by Duverger with his idea that first-past-the-post systems produce two-party competition (Duverger 1954). To both generalize and operationalize this concept, one can describe a Duvergerian equilibrium, where all (rational) voters are always cast their ballots for the M + 1 candidates in a district with the magnitude of M (Crisp et al. 2012). There are two important realizations contained in this formalized version of Duverger's law. First of all, that voters gravitate towards the viable contestants and desert unlikely winners. Second, as M is always specific to the district or constituency, that this mechanism is effective not on a national but on a constituency level.

There are obviously certain limits to the applicability of the M + 1 equilibrium model. It only applies to rational votes cast by calculating voters who are interested in the electoral outcome and are well-informed enough to know who is a viable contender. Whether voters act in such manner or not, whether they are motivated by strategic considerations or rather use the vote only as an expression of political preference is open to debate. Empirical research indicates that in practice these two models often overlap in real life (Spenkuch 2018). It is also difficult to apply the Duvergerian equilibrium to a high magnitude constituency. Just because there are 93 seats distributed on the national level in Hungary, it is unlikely that votes will concentrate on 94 different political parties. However, in such districts the strategic incentives are often also different. In a high magnitude constituency with proportional seat distribution, an explicit or implicit threshold will affect strategic considerations. Parties with a good chance of reaching the threshold will be perceived viable, those expected to poll below are to be deserted.

Furthermore, strategic voting has two necessary requirements, namely strategic objectives and strategic incentives (Plescia 2017). Switching one's vote from the first-preferred party or candidate requires careful calculation and such a decision cannot be interpreted as a strategic choice without an overall objective. The goal may be to maximize the result for one political bloc, or to prevent another from gaining representation for example. The objective is often specific to the context of the election but it has to be recognized to understand strategic behavior. The goals are also indispensable because they orient the electorate and make coordination possible. The other necessary element, the incentive is the expected pay-off of strategic behavior. Hypothetically, if the race in a district is expected to be close, strategic voting is perceived to be rewarding as the final outcome can be influenced. Interestingly, closeness of the race is often correctly estimated by the electorate beforehand, however using it as an independent variable has its own methodological problems (Cox 1988). The incentive can also be tied to the electoral system itself, more precisely to the method of seat allocation. Under FPTP rules for example, winning the seat could be seen as more valuable, than incrementing the seat share by one in a multi-member district.

Split-ticket voting is defined as voting for different parties or candidates simultaneously in different contests (Burden and Helmke 2009). The opposite of a split-ticket is a straight ticket where all votes are cast for the same party or candidate. There exists a definition for non-concurrent vote splitting, which theoretically occurs when members of the electorate switch their votes in consequent elections (Campbell and Miller 1957). However, this definition could be considered

problematic as it would be difficult to distinguish between non-concurrent ticket splitting and volatility. On the other hand, a distinction can and should be made between horizontal and vertical split-ticket voting. In the case of a horizontal split, the two ballots are cast in support of candidates running for offices in the same level of government. A perfect example for such a situation would be mixed member electoral systems where both ballots are used to select representatives to the same legislative chamber. A vertical split refers to tickets cast for candidates running for office in different levels of government. An opportunity for vertically split tickets arises when the president and the members of the legislative chamber are elected simultaneously for example. Reconciling the two theoretical models presents several problems. Considering vertically split tickets as strategic votes dismisses the possibility, that members of the electorate find different parties and candidates suitable for different positions in the government. Even in the case of horizontally split tickets, the possibility of a personal vote must be considered, meaning that the attractiveness of a certain candidate influenced the voter's decision instead of strategic considerations (Moser and Scheiner 2005). Measuring split-ticket voting is challenging because the two ballots are often not tied together and cannot be reconnected to identify common combinations. Besides opinion polling, which is often not available, conclusions may be drawn from the differences between candidate and party vote shares. The main disadvantages of this technique are probably quite obvious. If supporters of two parties mutually split their ballots in the opposite direction, voting for each other's candidate for example, then there will be no difference between the seat and vote shares in the final count. Some split-tickets will always be hidden due to this cross-voting effect (Plescia 2017). Secondly, if voters of more than one party split their tickets in multiple directions, there will be no way to later decipher which votes went where. Although the Hungarian electoral system provides two votes to each member of the electorate (except for expatriates with no registered domicile in the country), these two ballots are physically separate. While voters may choose to enclose them in the envelope provided at the polling station, this is not compulsory and the two pieces of paper are separated during counting. Consequently, there is no way to determine the exact number of split-tickets, it can only be approximated based on polling station level differences in candidate and party list vote counts.

To summarize this theoretical framework, strategic voting and split-ticket voting can be related, however do not necessarily intersect. Split-tickets can be cast out of ignorance or sincere preferences, while strategic votes may not necessarily be split. At the same time, if there is an identifiable strategic objective, sufficient strategic incentives are present and the two overlap in an obvious manner (e.g. concentrate on candidates of major parties) then it is probable that voter behavior is influenced by strategic considerations. As mentioned at the beginning of this section, for strategic considerations to be influential, voters need to be well-informed regarding the probable outcomes of the elections. More accurately, voters need to have a more or less similar perception of candidates' chances at winning. Such perceptions can facilitate strategic coordination and consequently, strategic voting (Andonie and Kuzmics 2012). Coordination can actually happen on two levels, we can distinguish party level and voter level coordination. The former refers to pre-election coalitions, alliances and withdrawals by parties or candidates and could be considered a supply-side factor in strategic voting (Bischoff 2013). The latter describes a situation where voters decide to act strategically and desert candidates with low chances for winning, and could be considered demand-side strategic behavior (Fernandes et al. 2016).

Common in these two is that both requires an adjustment of the voter's original behavior: Even in the case of party coordination, members of the electorate must decide to support the resulting coalition or the remaining candidate, meaning that strategic incentives may have an important role even then. Coordination is the aspect of strategic voting where media, and more recently online communication plays a significant role (Merkovity 2017). It can inform voters of likely election outcomes and facilitate coordination for common strategic goals. A good real-life example of online coordination would be the so-called Nader-trader websites of the 2000 U.S. Presidential elections (Southwell 2004, Hartvigsen 2006). The entire point of such pages was to connect voters from different states and allow them to coordinate their votes for a successful democratic bid.

2. METHODOLOGY AND DATA

The subject of this paper is the 2018 Hungarian general election and the strategic voter behavior that was propagated during the campaign and observed in the voting patterns of the final results. The institutional and political context is closely examined to identify strategic objectives and incentives during the 2018 elections. Then the social media activity of candidates is analyzed by descriptive quantitative tools to assess how they attempted to facilitate strategic voting behavior. Finally, the effects of strategic split-ticket voting on the final results are examined with quantitative measures.

The Hungarian Academy of Sciences compiled an extensive database of Facebook posts published by single-member constituency candidates during the campaign of 2018 (Bene and Farkas 2018). The earliest observations in the dataset are from February and status messages were recorded until the end of election day, April the 8th. This database is analyzed with the R statistical programming language (R Development Core Team 2008) by algorithmically searching for keywords in the Facebook posts to identify content related to strategic voting. Visualizations were created using the ggplot2 package (Wickham 2016) for the R environment. The keywords searched for were the following, with the English explanations for the expressions in parenthesis: "esélyes jelölt" (opposition candidate with the highest chance of winning); "egy jelölt" / "egyetlen jelölt" (only one candidate), "taktikai szavazás" (tactical voting), "visszalépés" (resigning from the race), "egyéni" (single-member). This narrow set of keywords proved to be quite comprehensive as a search tool. Random manual inspection of the algorithmically sorted data confirmed that the selected posts were related to strategic voting. This coding method was successful because the keywords were the main textual clues used by political actors, media and civilians to refer to strategic voting. Since the concept of tactical vote-splitting is complicated, the usage of these clues was quite common in public discourse during the campaign. A further source of data are websites and groups that were created to coordinate strategic voting. Their names and addresses were taktikaiszavazas.hu, kireszavazzak.hu, rendszervaltas2018.hu and a group called V18. The V18 group did not have a separate website but made recommendations at public media appearances. They provided an overall picture of and also probably influenced the general expectations towards constituency candidates. The recommendations of these sites and groups were published in national media outlets and were more or less used by both voters and candidates to choose viable contenders in the race. During the analysis, candidates were categorized according to their positions on the coordination websites already discussed above. There was very little disagreement

among the examined pages regarding who the most viable candidate was in each district, so it was possible to clearly identify the viable contenders.

There are a number of problems that prevent us from using Facebook status messages as independent variables in measuring voter coordination for the purpose of facilitating strategic voting. First of all, while the texts of the posts are available in the database together with the reactions and the follower counts of the pages, we have no reliable way of knowing how many users were reached by the content. Smaller pages may have sponsored some of the posts to reach thousands, while others could have had a very low reach due to reasons attributed to timing, a lack of interest, inactive audience, or any unknown factor in the news feed algorithm. Also, there is a another important conceptional problem with looking for a direct connection between strategic behavior and communication on social media, namely the audience. Strategic voting means the electorate is voting for less-preferred candidates, however it is unlikely that they also follow these less-preferred politicians on Facebook. Candidates mainly reach their own supporter base on this channel so it is unlikely that it would be an effective tool for convincing voters of other political groups. This does not mean that social media content is irrelevant, however it is probably more useful for reinforcing the existing supporters then for "poaching" others.

There are a number of analytical tools which can be used to identify strategic voting based on observed voting patterns. The most commonly used measure is the SF ratio (Cox 1997) which compares the vote share of the first loser to that of the second loser. The lower its value is, the higher the proportion of strategic votes are. In a mixed member system, an SFPR ratio can also be calculated, this is the SF ratio for party lists (Moser and Scheiner 2009). The difference between the SF and SFPR ratios allows us to draw conclusions regarding strategically split ballots. Another interesting tool for analyzing this phenomenon is the so-called hopeless votes (Crisp et al. 2012). This is the ratio of ballots cast for the non-contenders any other candidate who was neither the winner nor the runner-up. Obviously, a higher ratio of hopeless votes indicates lower presence of strategic behavior in the constituency. Finally, the effective number of losers is a modification of the well-known measure by Laakso and Taagepera (1979) that examines the concentration of votes among losers. The more the ballots concentrate on one candidate, the contender, the more likely strategic voting is. The National Election Office of Hungary publishes online the detailed final results of the election which can be used to calculate these measures. Finally, the effect of strategic voting on the outcome of the elections was calculated by modeling two hypothetical scenarios based on actual election data and comparing them to the real outcome of the elections.

3. POLITICAL AND INSTITUTIONAL CONTEXT

The Hungarian mixed member electoral system allows the electorate to cast two ballots simultaneously for members of the parliament. Out of the 199 representatives, 106 are elected in single-member districts by relative majority, according to first-past-the-post rules. The remaining 93 seats are distributed by the D'Hondt method according to the votes cast for the national level party lists with a threshold of 5%. The former majoritarian and the latter proportional sides of the system are not fully separated as they are also connected by a compensational and a premium mechanism. Votes cast for losing single-member district candidates are transferred to their corresponding party lists to compensate them for their defeat. At the same time, some votes are

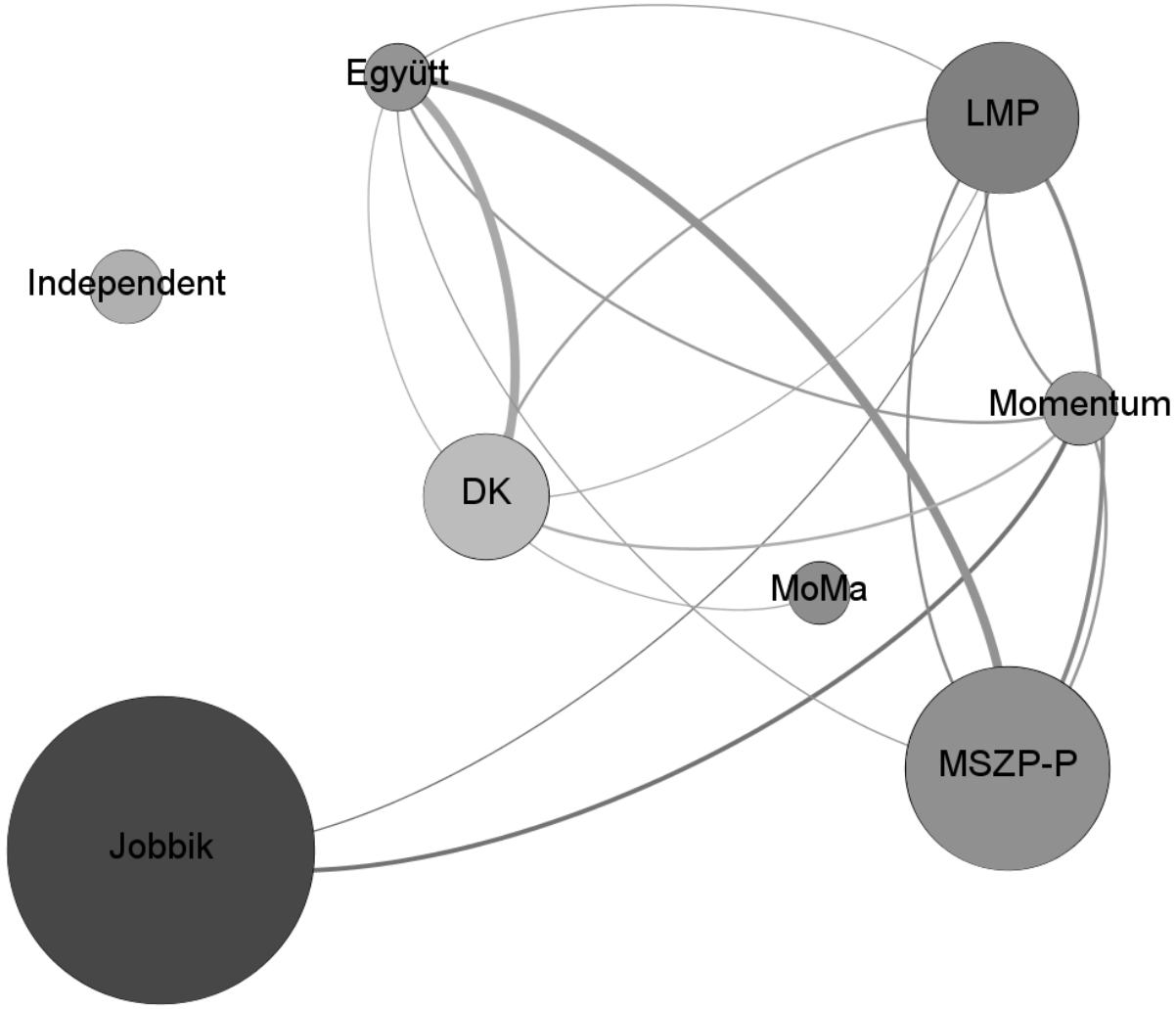
also awarded to the party list corresponding to the winning candidate. Their advantage in votes, or at least those that were not necessary for winning the seat in the constituency are also transferred to the national level, this is calculated by subtracting the runner-up's vote count plus one from the winner's vote count. There are certain provisions for minorities to gain representation by reaching one fourth of the national Hare quota. If any of the 13 minority lists does receive enough votes then they gain a single representative in the National Assembly and their seats are subtracted from the 93 proportional mandates, further decreasing the total that political parties can compete for on the PR side. In 2018, the German minority gained representation this way, and consequently the model calculations in the last section of this paper will consider only 198 seats (106 + 93) available for political parties.

There are a number of reasons why this complex electoral system is well-suited for both practicing and observing strategic voting. First of all, due to the two-ballot method of voting, casting split-tickets is possible and provides an opportunity for a strategic and an expressive decision at the same time. To a certain extent, it is also observable as discrepancies between candidate and party list vote shares are a clear indicator of ticket splitting and can indirectly hint at strategic behavior. Second, strategic incentives are obviously present during the Hungarian election as the political significance of single-member constituencies is emphasized by their high proportion (53.27% of the seats are distributed in these districts) and also by the mechanism of awarding premium votes to party lists associated with winning candidates. In contrast to the German proportional version of mixed member elections, where single-member seats cannot distort the final outcome, the Hungarian compensation mechanism is much more limited and its effects are mitigated by the premium votes awarded to the FPTP winners. Furthermore, minority representation can only be realized at the expense of the proportional side, so a successful minority bid can decrease the influence of the PR side even more.

In such an electoral system, a relative majority of votes can, and usually is transformed into absolute majority of seats. In both 2010 and 2014, Viktor Orbán's conservative Fidesz and its junior partner, the Christian democratic KDNP (Christian Democratic People's Party), gained a two-thirds supermajority in the Hungarian National Assembly. In the last eight years, this two governing parties have been facing and increasingly fragmented opposition (Ágh 2016) with a mid-sized right-wing party called Jobbik, and a number of smaller left-wing actors like the socialist MSZP (Hungarian Socialist Party) and its splinter party, the DK (Democratic Coalition), the green-left LMP (Politics can be different) and its own splinter, the PM (Dialogue for Hungary), and the Együtt (Together). Divided by numerous internal conflicts, the left-wing parties were also separated by a wide ideological cleavage from the nationalist Jobbik that originally began as a radical right-wing movement. In this situation, challenging the firm rule of the Fidesz-KDNP coalition seemed to be an almost impossible task. A wide coalition of opposition forces running joint candidates and a joint national party list would be necessary to do so among such electoral rules, however this seemed unlikely. It was common opinion among opposition voters and politicians alike that their fragmented state will prove to be prohibitive for their electoral performance.

On the 25th of February 2018, less than two months before the general elections, a mayoral by-election was held in a rural city called Hódmezővásárhely. The city was generally considered to be a Fidesz-KDNP stronghold and the power base of a prominent member of the government, János Lázár. The opposition parties refrained from running their own candidates and decided to support an independent newcomer, Péter Márki-Zay. He defeated Zoltán Hegedűs, candidate of the Fidesz-KDNP by a wide-margin (15%) and the victory gained him national fame (Bayer 2018). In this situation, a number of actors began to call for parties to continue the cooperation that proved successful in Hódmezővásárhely and for voters to unite behind the most viable opposition candidates in each constituency, regardless of their original political preferences. The most visible propagators of this strategy were civilians, at least in the sense that they were not running for office and were not directly related to any of the political parties. They set up websites providing information to voters regarding the chances of different opposition candidates in the constituencies, organized public events and used media appearances to disseminate such messages (see the previous section on methodology and data for the websites and groups examined for this paper). During the campaign both the political parties and the individual candidates attempted to pressure each other into resigning from the constituency race (Böcskei and Sebők 2018). They were only partially successful however, which created a chaotic situation with intertwined resignations, as seen on Figure X. Each candidate withdrawing from the race named a "successor", someone who they recommended instead as a more viable contender. The sizes of the nodes represent the relative size of the parties in terms of support, the edges represent withdrawals. The clockwise direction of the edges represents who resigned in favor of who.

Figure 1. Graph of strategic candidate withdrawals in the 2018 race



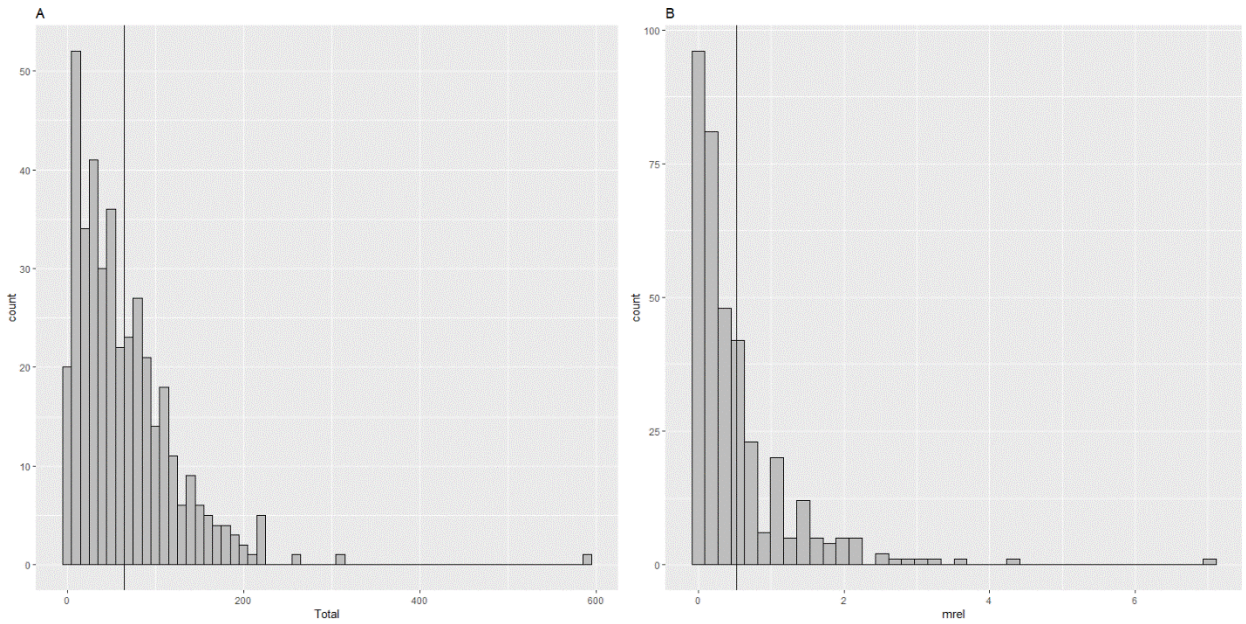
The strategic objective that united, or more precisely coordinated opposition voters, was their general dissatisfaction with the reigning government. Incentives were provided by the experience of a successfully coordinated by-election few months prior to the vote, the electoral system that emphasized single-member constituencies and the expectation that Fidesz-KDNP candidates only have a relative majority among the voting age citizens. The 2018 campaign began in an environment where opposition opinion leaders increasingly considered strategic voting as the only opportunity of defeating the governing parties, however they needed to somehow coordinate such a strategy. Thus, another relevant aspect of the 2018 race was political actors' access to media. Public media outlets, one of the two main commercial television channels, local print newspapers and radio channels were under the control of either the government, or businessmen with close ties

to Fidesz. The traditional media landscape was severely narrowed down and for this reason (Benedikter 2016), online news media and social media were of the highest importance for the opposition parties. Due to these circumstances, it is worth examining how this situation translated into the social media activity of opposition constituency candidates. Facebook pages are the channels that candidates have full control over, they can use them to communicate directly with their supporters and consequently play a crucial part in a personalized campaign of constituency candidates.

4. FACEBOOK ACTIVITY RELATED TO STRATEGIC VOTING

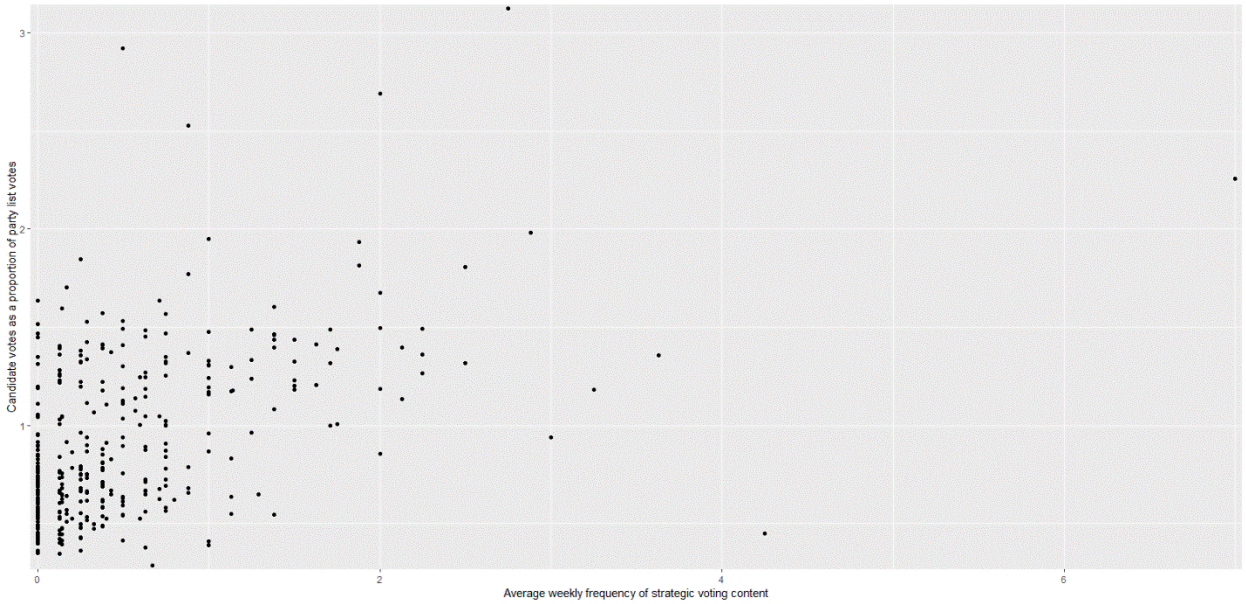
There was wide variance among candidates in the intensity of publishing Facebook posts, with numerous opposition contestant having a minimal or zero social media presence. The database was compiled by the Hungarian Academy of Sciences during their research project monitoring social media activity during the 2018 general elections (Bene & Farkas 2018). It contains 25 841 status messages published by opposition constituency contestants while during the same period the 106 candidates of the Fidesz-KDNP alone posted to Facebook 20 995 times. Obviously, a higher quantity of posts does not necessarily lead to higher effectiveness or wider reach, but it does illustrate the context of the campaign. Nonetheless, the aim of this paper is to study opposition communication patterns regarding strategic voting. Of all the posts published by opposition candidates during the campaign, 93.56% did not contain any of the specified keywords. The 1 664 posts related to strategic voting constitute only 6.44% of the total opposition Facebook content. The number of these posts increased during the campaign period with only 25 appearing on the first week and 549 published on the last week of the campaign. As it became obvious that the majority of the candidates will not withdraw, parties probably began to consider voter coordination increasingly important and thus intensified their efforts to communicate these ideas.

Figure 2. Distribution of the frequency of Facebook posts (A) and content relevant to strategic voting (B) (Based on data collected by the Hungarian Academy of Sciences)



Since the intensity of Facebook usage was widely different even among opposition candidates, comparisons can only be made using the proportion of posts on strategic voting. Figure X Chart A shows the distribution of post counts. The histogram displays some quite extreme values with the most enthusiastic contestant publishing almost 600 posts over the course of the campaign. The mean total post count for the candidates however is only 65, with the majority publishing somewhat more frequently than once a day. Chart B displays the distribution for the weekly frequency of posts related to strategic voting. Values accumulate near zero with a mean average of 0.5 indicating that tactical split-ticket voting was not the main topic for most of the politicians. Based on these two histograms, one must be careful when looking for a relationship between the outcome of the elections and the intensity of strategic voting communicated in social media. Except for some extreme cases, candidates did not consider strategic voting to be their most important message and some of the only used it as a part of their slogan or signature. Figure X displays the weekly frequency of strategic voting status messages published by the candidates, plotted against their vote share in proportion of the percentage gained by their corresponding party lists. Looking for a direct cause and effect relationship would be misguided, even though the shape of the scatter plot would indicate that there was one. The truth is that this relationship is probably a lot more indirect. Contenders marked with triangles on the chart are those who were recommended by the coordinating websites. They subsequently used this as an important argument in their campaign. However, they became the most likely competitors of Fidesz-KDNP candidates even before they started to talk about it. They were then introduced in national media as the most viable challengers and that was probably the most influential factor affecting their performance at the polls. Furthermore, for them it was obviously easier to implement strategic voting into their communication than for those who were not recommended at all by the websites.

Figure 3. Weekly frequency of posts related to strategic voting plotted against candidate's vote share in proportion to the corresponding party list's vote share (Source: Own elaboration based on the official election results and the data collected by the Hungarian Academy of Sciences)



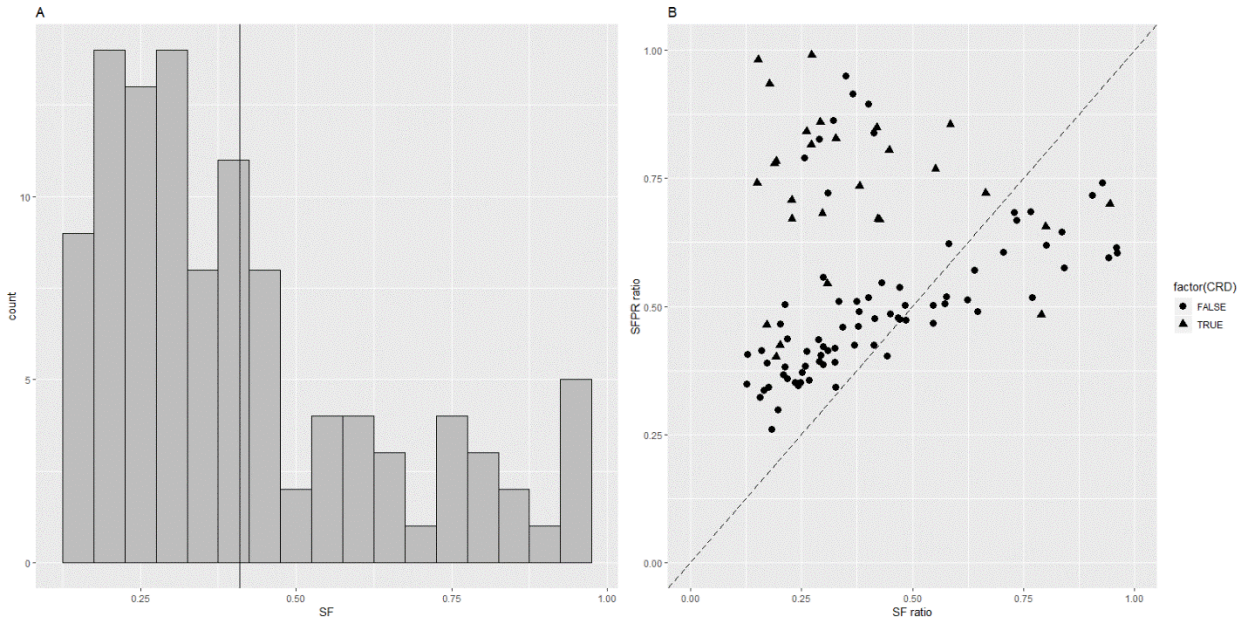
Independent candidates campaigned for strategic voting in 14.15% of their posts. The socialist MSZP-PM alliance and the Együtt each used more than 11% of their total posts to convince their followers of voting strategically, with the socialist splinter party, the DK trailing them with 7.35%. The LMP and the Jobbik are tied at 5.37% and the MKKP is at the last place with 1.67%. These are the ratios of posts that included any of the selected keywords that signify strategic behavior. Such texts mainly emphasize the importance of choosing the most electable candidate with the highest chance of beating the Fidesz-KDNP politicians in the race. Independent candidates generally had an unsuccessful track record on Hungarian elections. However, in 2018 two of them were named as viable contestants by all of the examined websites. For them, emphasizing this fact in their communication was crucial to prove they are legitimate alternatives on the ballot. The Együtt was the main proponent of strategic voting. The party did not run candidates in numerous districts claiming that they were instead supporting wide scale coordination between political parties. Their main messages were focused on the necessity of cooperation among opposition political groups so unsurprisingly this topic dominated their social media spaces too. The MSZP-PM and the DK were the only parties who explicitly coordinated their strategies during the nomination process. They refused to run candidates against each other and divided up the constituencies between themselves. The LMP and the Jobbik had fairly ambivalent attitudes towards strategic coordination. Although both were established political parties with two parliamentary terms behind them, they emphasized their separation from the political establishment of the 90's and early 2000's. They were also separated from both each other and the other parties by wide ideological cleavages that made cooperation even less likely. However, while Jobbik was the most popular opposition political group at the time, LMP was a minor party, so while the former could claim to be the most viable contender in many if not all of the constituencies, the latter had some trouble explaining the lack of withdrawals. Finally, the MKKP was more or less a joke party that ran candidates in the only part of the districts. Their campaign was based on absurdity and strategic cooperation probably lacked relevance for them and their supporters.

While party positions are obviously relevant, candidates faced unique situations in their constituencies determined by the perception of the winning chances. To measure how they acted based on their constituency level position, they were categorized into contestant and non-contestant groups. There were 106 contenders and 316 non-contender candidates categorized with the average weekly frequency of their Facebook posts strategic voting calculated. Welch's t-test was conducted to compare the weekly frequency of posts on strategic voting by contenders and non-contenders. There was significant difference in the frequencies for contenders ($M = 0.826$) and non-contenders ($M = 0.495$); $t(395) = 2.6728$ $p = 0.007833$. Results indicate that contenders posted about strategic voting significantly more frequently than their non-contender counterparts. This is not very surprising as candidates could use their designation as viable contenders to reinforce their support. On the other hand, they were preaching to the choir, as they were using a channel that was not necessarily adequate for reaching voter other than their own. Communication on social media is obviously only one of the many factors that affected coordination and considering the low frequency of related Facebook posts, candidates may have acknowledged this themselves.

5. EFFECTS OF STRATEGIC VOTING ON THE FINAL RESULTS

Without attributing all strategic behavior to the Facebook posts of candidates, in the following section the prevalence and effectiveness of strategic voting is going to be assessed. One of the simplest tools available for us to do so is the so-called SF ratio (Cox 1997) which has already been discussed above. Chart A in Figure X shows the distribution of SF ratios in the single member constituencies. The lower the value is, the more the votes concentrated on the runner-up, the most viable contender. In the 2018 Hungarian elections, the average value of this measure was 0.4 (see the vertical line on the chart) and the SF ratio was below average in the majority of the districts. This means that in most districts, the candidate in the third place received only 40% or less of the vote share gained by the runner-up. Considering that the SF ratio will be zero in a perfect Duvergerian M + 1 equilibrium, the values observed here indicate limited strategic behavior. This can probably be explained by insufficient coordination, both between the Jobbik and left-wing parties, and their supporters. The bipolar division of the parties opposing the Fidesz-KDNP do not provide fertile ground for ballot concentration. To further examine the extent of strategic voting, the traditional SF ratio can be compared to an identical measure calculated for the PR race in a constituency. Chart B in Figure X displays constituencies with some form of party coordination (candidate withdrawal) as triangles and non-coordinated districts as dots with the two measures on the two axes. Constituencies where the SF ratio equals the SFPR ratio should be aligned on the straight 45-degree line that stretches from the origin to (1,1). In such constituencies, the proportion of the votes concentrated on the runner-up and their corresponding party list is equal which indicates a lack of strategic behavior. In constituencies above the line, the SF ratio is lower than the SFPR. According to the theoretical framework of this paper, this is a sign of tactical considerations behind voter decisions as they attempted to concentrate their support on a viable contender while still casting their proportional ballot for their most preferred party list. Chart B clearly shows that in the majority of constituencies where parties coordinated, the SF ratios were lower than the SFPR ratios. Since there were less available choices on the FPTP ballot in these districts, this is not unexpected. However, the majority of non-coordinated districts are also above the line, indicating that even without candidate withdrawals, voters generally supported the most viable contenders. Charts A and B in the Figure each display a different aspect of strategic and split-ticket voting. They are very informative together as Chart A shows that most constituencies are far from the Duvergerian equilibrium but compared to the proportional votes, there is an obvious tendency towards strategic behavior on the majoritarian ballots.

Figure 4. Histogram of SF ratio distribution (A) and comparison of SF and SFPR ratios by constituencies (Source: Own elaboration based on official election results)



Determining the effectiveness of strategic voting on the 2018 elections in should not be attempted simply by examining the political outcome, namely the supermajority won by the Fidesz-KDNP. Strategic coordination obviously did not lead to a change of government, however that does not mean that there was no successful strategic voting on election day. For a clearer picture of the influence of strategic split-ticket ballots, two hypothetical situations were modeled on the actual results of the election, and compare them with the real outcome. The first model involves no coordination of any kind. All voters cast their ballots for their preferred party and the corresponding candidates, meaning that candidate vote count will always equal party list vote count when there is a relevant candidate running. If there isn't, in this hypothetical model, candidate votes are not transferred to another but are completely lost. The chances of this happening, is highly unrealistic of course. In practice, voters who have no candidate to vote for are certainly free to choose a second preferred one, or to strategically coordinate on a viable contender. However, this model is intentionally prohibitive of any split-ticket voting, so as to illustrate the effect of 100% straight, sincere ballots and no coordination whatsoever.

The immediate consequence of the lack of coordination is that the governing Fidesz-KDNP alliance wins all single-member constituency seats. A total of 148 seats are won by them in the parliament, providing them with a comfortable 74.75% supermajority in the house. While the MSZP-P, the Jobbik and the DK all lose seats in this model, the LMP doesn't. The explanation for this is that while they do fail to win their one constituency seat, they gain one more through the PR side by the compensatory mechanism and by the lack of strategic desertion that affects small parties in general.

Table 1. Results of the model calculations and the actual election outcome as the number of seats gained by political parties (Source: Own elaboration based on the official results)

		DK	EGYÜTT	FIDESZ-KDNP	JOBBIK	LMP	MKKP	MSZP	MOMENTUM	Independent
Model 1	**FPTP**	0	0	106	0	0	0	0	0	0
	PR	6	0	42	22	8	0	14	0	0
	Total	6	0	148	22	8	0	14	0	0
Model 2	**FPTP**	0	0	102	0	1	0	3	0	0
	PR	7	0	40	22	8	0	15	0	0
	Total	7	0	142	22	9	0	18	0	0
Actual results	**FPTP**	3	1	91	1	1	0	9	0	1
	PR	6	0	42	25	7	0	11	0	0
	Total	9	1	133	26	8	0	20	0	1

In the second model, parties coordinate, however voters do not. This is a situation where parties withdraw their candidates in certain constituencies and the electorate does adjust to this supply-side coordination, they do not switch their voters or split their tickets where they don't have to. If there is a candidate of their most preferred party running, they are going to support it no matter what the strategic incentives are. In the model, candidate vote only equals with party vote when there is no strategic withdrawal. If there is, then the PR votes of the parties cooperating are added together. The model was calculated according to the real strategic withdrawals that happened during the campaign (again see Figure X). In such cases, the resigning candidates always declared who they resigned in the favor of. Again, this is another simplistic model as supporter groups probably cannot be added together completely. Some may be unwilling to coordinate due to irreconcilable differences in their political preferences. However, the calculated results do not seem to be that unrealistic. The Fidesz-KDNP still wins the overwhelming majority of the single-member constituencies in this scenario, but not all of them. The MSZP-P manages to win three single-member seats and the LMP gains one. Interestingly, for both the LMP and the MSZP-P, this would have been the best scenario, although that is not true for the opposition overall. The explanation here is that in this model, voters do not defect from their candidates and even though they lose in the FPTP race, they are awarded with votes in the compensatory mechanism leading to a higher final seat share.

Finally, we arrive at the third scenario which is not a model calculation but the real outcome of the election. These are the results that were created by not just party-level supply side but also voter level demand-side coordination. Although parties did coordinate to a limited extent (same as in the second model), members of the electorate also deserted candidates who were not seen as serious contenders and supported more viable alternatives. Comparing the results to the first model indicates that strategic cooperation in overall costed the governing Fidesz-KDNP coalition 15 constituencies and nearly the supermajority (which they only reached by a single seat.

Calling strategic voting a failure or a success is of course subjective. However, strategic coordination apparently had a significant influence on the final outcome of the elections and rewarded the opposition parties with several additional seats, compared to scenarios with less or no cooperation at all. At the same time, it was not enough to prevent the Fidesz-KDNP coalition to transform its approximately 50% support into a two-thirds constitutional majority in the

National Assembly. An interesting finding of this analysis is the very obvious difference in the effect of supply-side and demand-side strategic voting. It is possible but unlikely that even without candidate withdrawals, voters would have coordinated just as effectively. At the same time, by comparing the two models to real life seat shares, it seems that voter coordination was more influential than party coordination. The most likely explanation is that both are required for the success of strategic voting as the two can mutually reinforce each other.

6. FINDINGS AND CONCLUSIONS

This paper attempts to examine strategic voting during the 2018 Hungarian general elections and to analyze what part the Facebook communication of candidates played in coordinating this phenomenon. From both a theoretical and a practical viewpoint, the direct relationship between the two is dubious. First of all, strategic voting refers to the specific event when voters support a candidate other than their first-preferred one. This could hardly be achieved solely by claiming to be the most viable contender – which is a staple of political campaigns anyway. Furthermore, Facebook pages provide a direct channel for candidates to communicate with their own supporters. Reaching the electorate of the competitors can be achieved by paid advertisements, however there is no available data on such activities including budget and content at this time. What seems to be confirmed is that those who were named as viable contenders did use this fact as an important argument in their campaigns and since the coordination websites were generally correct about their recommendations, the most successful opposition candidates did post more about strategic voting. Looking at the final results of the election, the effectiveness of strategic voting is unquestionable. It cost the governing Fidesz-KDNP coalition 15 seats in the Hungarian National Assembly. Furthermore, an important contribution of this paper is demonstrating the importance of both elements of strategic coordination: supply-side or party level and demand-side or voter level. This however is not unrelated to the social media activity of candidates. Supply-side coordination was limited during the campaign period so the only chance was to facilitate it on the demand-side. Social media could probably be a great tool for doing this, however official candidate Facebook pages probably aren't. Candidates did not consider posting about strategic voting a priority and it was mainly discussed by those who were already considered to be viable. While this paper focused on a number of factors specific to Hungary, the findings presented here make a strong case for the importance of strategic voting behavior in general. It is clearly defined by both voter expectation and the available political alternatives on the ballot and the former can be influenced by social media, at least to a limited extent.

KEY TERMS AND DEFINITIONS:

Strategic voting: The decision by a voter to move electoral support from the first-preferred party or candidate to another one because of the perception that the latter has a better chance at winning.

Split-ticket voting: Casting different ballots simultaneously, splitting them between two or more separate political groups or candidates.

Supply-side strategic coordination: Cooperation of political groups regarding the nomination and withdrawal of candidates to facilitate strategic voting

Demand-side strategic coordination: Voters defecting from first-preferred candidates in favor of viable contenders without any cooperation between the political parties.

Hungary: Central-Eastern European country, member of the European Union.

SF ratio: A measure developed by Cox to measure strategic voting, it is the ratio of the second and first loser's votes.

SFPR ratio: Another version of the SF ratio that uses party list vote counts in the proportional race instead of the candidate vote counts in the majority race.

Mixed-member system: An electoral system where parties compete in majoritarian and proportional races simultaneously.

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