FORECAST FAILURES AND COLLECTIVE FALSE BELIEFS: COULD HUNGARIAN PUBLIC OPINION POLLSTERS HAVE MADE BETTER PREDICTIONS?

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Abstract: The study below examines the spectacular failure of four Hungarian public opinion pollsters to predict prior to the first round the results of the 2002 general elections, and the causes of this failure. It reviews the types of voting behaviour manifesting themselves during the polls and at the elections, and analyses the criteria of accurate prediction. Based on the results of public opinion pollsters it summarises the observations made during the data surveys prior to the first round of the 2002 elections, and the explanations given by researchers for their failure. Then it tries to explain the reasons for the wrong predictions of pollsters. Besides a change in party support after surveys (late swing) it emphasizes the role of three collective false beliefs: the misconception of voters' attitudes towards Fidesz; the acceptance and interpretation as realistic (giving an accurate picture of the real trends) of the results of pollsters; and the voters' wrong assumption concerning the final result of the elections. The study also describes how these effects manifested themselves.

Keywords: elections, collective false beliefs, public opinion, voting behaviour

INTRODUCTION[1]

In this study[2] we are going to examine what explains the spectacular failure of Hungarian public opinion pollsters in predicting the results of party list voting prior to the first round of the general elections[3] in April 2002. What were the factors due to which Hungarian pollsters considered the Sunday of April the 7th to be a "Black

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Sunday"? And why none of the four prestigious opinion pollsters (Gallup, Median, Szonda-Ipsos, Tárki) were able to identify – neither at the end of March, nor just before the elections – which party would win the most votes on their country list in the first round of the elections?

This problem substantially differs from when we compare the results of public opinion pollsters' surveys of party preference surveys for identical months. When we examine the predicted and actual results we are looking at the accuracy of the estimates, when we compare independent predictions related to the same phenomenon we are looking at the validity of the estimations examined.

In this study we shall only concentrate on the first one, as we have already examined the second set of problems based on the monthly data of the Hungarian public opinion surveys related to the 1994–2002 period (Tóth 2002). We shall analyse the predictions the four major public opinion research institutes (Gallup, Medián, Szonda-Ipsos, Tárki)[4] gave in the months before the elections; at the same time where it is necessary, we shall also mention the results of the public opinion surveys and expert estimates before the second round of the elections, which – although they yielded positive results and were not less spectacular than the previous ones –, received undeservedly less publicity.

As the raw data of these surveys were not available to us, we have to confine our discussion of the results and observations to published results and data related to the surveys. Thanks to the highly informative publishing policy of some institutes, the above have also provided an ample basis for the analysis.

We claim that the failure to predict the results of the elections at the scale of what would amount to a "Black Sunday" hides an extremely rare incident and that it could only come about in consequence of a really extreme set of circumstances. As such, it also offers a special opportunity to analyze the relationship between the intention of voters prior to the election, the opinion pollsters' predictions based on them, and the actual behavior of voters.

In our view the spectacular failure of pollsters can be traced back – apart from a number of external causes – to several misunderstandings and some methodological shortcomings. In a paradoxical way, a contributing factor was the credit given to pollsters' estimates during the election campaign rooted in experiences of their earlier predictions. Thus, the publication of these estimates also had a significant effect on the results of the elections. Analysts fatally misunderstood voters' expected behavior, and they had been unable to assess - not that they would have been able to do so – either in March or immediately prior to the elections, the effect of a political event (the Medgyessy – Orbán television debate) on voters' intention to vote. Additionally, the confronting messages communicated by Fidesz throughout the campaign had a role to play also, as they fundamentally affected the proportion and composition of *'I don't know'* or *'I will not tell you'* answers to questions concerning intentions to vote in the surveys pollsters carried out.

In addition to the above, three common mistakes also contributed, in our view, to the failure of predicting the outcome: misunderstanding of the voters' attitude to

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4 For details of the four Hungarian pollsters see their websites: *http://www.gallup.hu, http://www.median.hu, http://www.szonda-ipsos.hu and http://www.tarki.hu* .

Fidesz, acceptance and interpretation as realistic (i.e. providing a proper picture of real processes) of pollsters' predictions; and the voters' wrong assumptions concerning the likely result of the elections. In this study we shall demonstrate how these effects manifested themselves.

The study consists of four parts. First, in addition to some theoretical considerations, we analyze intended and real behavior types of voters, and define strict and less strict criteria of accurate outcome estimates.

In the second part we present the wrong outcome estimates, and review the published observations derived from the pollsters' surveys and the explanations the opinion pollsters' researchers provided.

In the third part, we provide an alternative explanation, according to which the phenomena opinion pollsters observed and the road to foiled outcome estimates can be described and interpreted as interplay of several processes.

Finally, the study draws the reader's attention to some lessons that can be drawn-with respect to parties; voters and the pollsters themselves from the pollsters' foiled predictions.

SOME THEORETICAL CONSIDERATIONS

Public opinion pollsters were spectacularly wrong – as we stated in the introduction. This statement holds the tacit assumption that they could as well have given an accurate estimate of election results. However, this latter assumption is not at all as evident as it seems to be. The right way of asking the question, that is, just the other way round: Can public opinion pollsters provide an accurate estimate of election results? And if they can, what are the requirements that have to be complied with?

Table 1.1. Voter's behavior types manifesting themselves in the pollsters' predictions and the elections

	Intention to participate	Intended party selection
Probably votes	E^*	A^*, B^*, N^*
Probably will not vote	nE^*	A^*, B^*, N^*
	Actual participation	Actual party selection
Votes	E	A, B
Does not vote	NE	

Explanation:
* signals intended behaviour of electors as observed in the surveys, whereas normal letters denote actual behaviour during the elections.
A: A party's voters/supporters
B: B party's voters/supporters
N: responding *'I do not know'*, *'I will not tell you'*
E: participation in voting
nE: not participating in voting
∩: 'and' relationship

To make the above clear, let us take the example of an imaginary country, X, where two parties (A and B) are competing with each other, and researchers ask the following two questions in a survey of a sample of 1000 people representing the voting population in terms of age, sex and settlement type, one week before the general elections:

Q1) "Which party are you going to vote for at the general elections next week?"
   Respondent can give three answers to this question:
   A party;
   B party;
   Does not respond (*'I do not know'* or *'I will not tell you'* answers).

Q2) "Are you going to vote at the elections next week?"
   Yes
   No
   [Does not respond (*'I do not know'* or *'I will not tell you'* answers)].

Let us assume first that the results of the public opinion surveys are not published, so they cannot really influence voters' actual behavior. The general elections take place in one round; the system is an entirely proportionate one. People answer two questions at the elections: they decide whether or not they will turn out for voting and then, if they will, which party they will vote for. In this case the following options are possible with respect to the intention to participate and the intention to vote. (see *Table 1.1*).

Opinion pollsters can predict election results accurately only if the following relation applies to their estimate and actual results:

$$\frac{E*(A*)}{E*(B*)} = \frac{E(A)}{E(B)} \tag{1}$$

Where $E*(A*)$ is the number of people who answered to the pollsters' question that they would go to vote, and would vote for *A* party, and $E*(B*)$ is the same for *B* party. $E(A)$ and $E(B)$ mean the actual number of people voting for *A* party and *B* party.[5]

However, the situation is not as simple as it seems at the first sight based on (1). As the $E*(A*)$ group defined during the estimates may include people who will either not go to vote in the end, or will change their mind and vote for *B* party instead of *A* party. On the other hand, $E(A)$ may include people who mentioned an $nE*$ answer and any kind of intention to vote at the survey, or belong to group $E*(B*)$ or group $E*(N*)$, etc.

The two simple questions of pollsters, and the two kinds of voter's decisions manifesting themselves at the elections, that is, bring about a rather complicated situation and set apart several types[6] (exactly $2*3*3 = 18$) of voter's behavior. We have grouped them in Table *1.2*.

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5   The precondition defined in (1) is equivalent with setting the equality of the predicted and actual support of the two parties as a precondition. So: $E*(A*)/[E*(A*) + E*(B*)] = E(A)/[E(A) + E(B)]$ and $E*(B*)/[E*(A*) + E*(B*)] = E(B)/[E(A) + E(B)]$. It trivially means that the estimation is accurate if the difference between the predicted and actual results with respect to both observed parties equals zero.

6   To make it simpler we put together the last two options in the second question (Q2). Thus we defined the positive voting intention with *'YES'* answer and the negative intention to vote with answers *'No'* or *'Don't know'* or *'No answer'*.

In the table we have used bold face for behavior types, where the people interviewed behave consistently during the elections, in accordance with the answers they gave at the data survey. As can be seen, there are only five cases like that, but it has to be added also that the majority of people asked during the surveys can be a priori classified in this category, as these are the expected behavior types. For an accurate estimate by public opinion pollsters of the elections it is not necessary that each and every respondent should act in the elections in line with the intentions expressed at the survey, i.e. behave consistently. It is not necessary either that the ratio of the two parties' consistently behaving voters should be equal to the ratio of the two parties' actual voters. A softer condition will also do for an accurate estimate.

Out of the behavior patterns in *Table 1.2* the non-consistent types[7] – which deflect the actual voting ratios compared to the estimated ratios in favor of one or the other party – deserve special attention. From this point of view the *E*(N*)∩nE* type is not relevant, as it is the group of non-respondents who said at the survey that they would go to vote (but who did not tell/did not know which party they would support), but eventually they did not do so. Their number does not influence the above-mentioned ratio. Consistent behavior types can also be neglected from this point of view.

Let us now group non-consistent behavior types according to their effect on the election results of *A* party or *B* party. This will take us to what is described in *Table 1.3*.

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7 Non-consistent voters are the sum total (the union) of the *lazy* ones, the cross-voters, the ones in hiding and the voters becoming active. For the sake of simplicity we also assign to this group here those too who cannot be described as having been consistent or not, as they failed to disclose their voting intention when they were polled *(voters in hiding)*.

Table 1.2. Voters' behavior patterns in X county defined by the intended
and actual behavior of the voters

		Actual voter's behavior		
		$E(A)$	$E(B)$	nE
Predicted (intended) voter's behavior	$E^*(A^*)$	Consistent ones $E^*(A^*) \cap E(A)$	Cross-voters $(A \rightarrow B)$ $E^*(A^*) \cap E(B)$	Lazy ones $E^*(A^*) \cap nE$
	$nE^*(A^*)$	Voters becoming active $nE^*(A^*) \cap E(A)$	Cross-voters becoming active $(A \rightarrow B)$ $nE^*(A^*) \cap E(B)$	Consistent ones $nE^*(A^*) \cap nE$
	$E^*(B^*)$	Cross-voters $(B \rightarrow A)$ $E^*(B^*) \cap E(A)$	Consistent ones $E^*(B^*) \cap E(B)$	Lazy ones $E^*(B^*) \cap nE$
	$nE^*(B^*)$	Cross-voters becoming active $(B \rightarrow A)$ $nE^*(B^*) \cap E(A)$	Voters becoming active $nE^*(B^*) \cap E(B)$	Consistent ones $nE^*(B^*) \cap nE$
	$E^*(N^*)$	Ones in hiding $E^*(N^*) \cap E(A)$	Ones in hiding $E^*(N^*) \cap E(B)$	Lazy ones $E^*(N^*) \cap nE$
	$nE^*(N^*)$	Ones in hiding becoming active $nE^*(N^*) \cap E(A)$	Ones in hiding becoming active $nE^*(N^*) \cap E(B)$	Consistent ones $nE^*(N^*) \cap nE$

Explanation:
"*" signals intended behaviour of electors as observed in the surveys, whereas normal letters denote actual behaviour during the elections.
A: A party's voters/supporters
B: B party's voters/supporters
N: responding *'I do not know', 'I will not tell you'*
E: participation in voting
nE: not participating in voting
$\cap$: 'and' relationship

Table 1.3. Non-consistent behavior patterns which have a favorable effect
on A or B party's results at the elections

	Favorable for A party	*Favorable for B* party
Lazy ones	$E^*(B^*) \cap nE$	$E^*(A^*) \cap nE$
Cross-voters	$E^*(B^*) \cap E(A)$	$E^*(A^*) \cap E(B)$
Ones in hiding	$E^*(N^*) \cap E(A)$	$E^*(N^*) \cap E(B)$
Voters becoming active	$nE^*(A^*) \cap E(A)$	$nE^*(B^*) \cap E(B)$
Ones in hiding becoming active	$nE^*(N^*) \cap E(A)$	$nE^*(N^*) \cap E(B)$
Cross-voters becoming active	$nE^*(B^*) \cap E(A)$	$nE^*(A^*) \cap E(B)$

Explanation:
"*" signals intended behaviour of electors as observed in the surveys, whereas normal letters denote actual behaviour during the elections.
A: A party's voters/supporters
B: B party's voters/supporters
N: responding *'I do not know'*, *'I will not tell you'*
E: participation in voting
nE: not participating in voting
$\cap$: 'and' relationship

The actual support ratio of any two parties at an election depends – from the perspective of estimates and beside the number of the actual voters of a party – on the ratio of the sum of voters in hiding and cross-voters. The other lesson that can be drawn from the equation described in *Appendix (4)* is that if we are informed of actual participation with respect to part *(E)*, actual election results can be derived from the answers referring to the intention to vote of all respondents in the survey, that is they can be calculated without the answers given to questions probing into intentions to participate.

More accurate estimates can be reached if the ratio of inconsistent voters is as small as possible compared to the number of consistent voters. If the latter constitutes a relatively small proportion compared to consistent voters, a precise estimate can also be reached without public opinion pollsters being aware of the behavior of non-consistent voters. However, the above is possible only in fortunate situations that are beyond the reach of public opinion pollsters' influence. A stricter and somewhat simpler condition than above can also be formulated if we want to generate a more precise estimate. Let by pair ratios of inconsistently behaving voters favoring *A* or *B* party from *Table 1.3.* describing various behavior types coincide with the ratio of consistently behaving voters choosing *A* and *B* parties. In other words, let the by pair effect of these behavior types be neutral *(see Appendix)*.

Our assumption so far has been that public opinion pollsters do not publish their results, thus the results do not influence actual election outcomes. Now let us dissolve this restriction.

If they publish their results, assessed preferences and actual ones manifesting themselves at the elections will not be independent from each other. Herbert Simon

pointed out that if the intention to vote estimates of public opinion pollsters are published, in theory they even cannot measure precisely the election result that would have occurred if they had kept the results of their polls in secret or the polls would not have taken place in the first place (Simon 1957). The possibility of giving an estimate precisely coinciding with election outcomes cannot be ruled out, but publication of survey results influences election results even in such a case.

Simon analyses two theoretical possibilities in his quoted study in a situation when two candidates (parties) – A and B – compete. In both cases $S = f (I, E)$, that is the outcome of voting *(S)* depends on two factors:

- decisions of voters who would have voted for the party (candidate) concerned even if the survey would not have been published (I);
- and decisions of voters who were "convinced" by survey results (1) that they should support candidate *A* if "they would like to be among the winners"; or his/her competitor (2), candidate *B* if by doing so they would like to avoid the victory of candidate *A* having better chances according to public opinion polls. *(E)*.

The first case is about the "bandwagon effect", whereas the second case is about the "underdog effect". If the public opinion pollster is aware of the relative weight, voting intention and the intention to participate of the voters displaying these two different mindsets, then it will be possible for the pollster to provide a precise election estimate prior to the elections or publish such an estimate of the election outcomes that will have a decisive influence on eventual election outcomes.

The results of estimates of the intention to vote, therefore, do not necessarily have to coincide with the actual results of the elections, although they may even coincide with them, the credit for which can go to public opinion pollsters.

The existence of the "bandwagon effect" can be often captured after the elections by observing how the election outcome affects the estimated intention of voters. If one recalls, for example, surveys following the elections in Hungary in 1998, they glaringly demonstrate the assertion of the "bandwagon effect" principle, even with a retroactive effect for that.[8]

Consequently publishing the forecasts, therefore, does have a powerful influence on voters' actual behavior in some cases. The more people become aware of the estimate and the higher is the proportion of voters who decide which party to vote for depending on others' voting intentions, or, by the same token, the more powerfully party messages evoke this or the other behavior type during the campaign, the stronger this effect is.[9]

The higher is the proportion of voters who formulate their own opinion through watching others' (their community's) intentions to vote, the stronger the effect publication of results can have on the very outcome of the election. Furthermore, this

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8   Results of Hungarian public opinion surveys provide ample evidence to this: See Fábián 1996; Angelusz and Tardos 2000; Marián 1998; the compilation with respect to Marketing-Centrum data in *Jel-Kép,* 1998, 4: 24.

9   Let us notice that what we have here is nothing else but the voter type that we describe as the *inconsistent* voter. The two cases described by Simon can come about in such a way that the individual types of what we call *inconsistent voters* exist (cross-voters, voters becoming active, and cross-voters becoming active). The bigger their ratio is compared to the *consistent ones,* the effects described by Simon can be the stronger *ceteris paribus*.

effect is the stronger the more uniform the picture provided by pollsters is with respect to voting intentions of voters in a country.

The above was exactly the situation in Hungary before the general elections of 2002.

FORECAST FAILURES OF HUNGARIAN POLLSTERS:
FACTS, REASONS AND EXPLANATIONS

All the four pollsters examined (Gallup, Medián, Szonda-Ipsos, Tárki) had provided monthly estimates of trends in voting intentions in the years prior to the elections. They deviated from this practice only immediately before the election, when, during the month prior to the election they assessed the population's intention to vote several times (twice in the two weeks before the election). The last but one survey took place immediately before the 8-day moratorium expired with respect to the publication of intention to vote surveys, whereas the last one took place in the days before the elections and on the day of the election.

Public opinion pollsters addressed in their analyses the spectacular failure of the predictions on election day broadcast live by TV channels as a "black day" *(www.gallup.hu)* or, laconically, as a "failure" (Kolosi and Tóth 2002). The first qualifying statement, thus, appears by far to be an exaggeration. What happened on this Sunday fundamentally shook the credit given to the estimates of Hungarian opinion pollsters with respect to voting intentions. The event we are confronted with is such the gravity of which can only be described in terms of its rarity. It is not only, namely, that public opinion pollsters committed a spectacular error on this (black) Sunday, but that their last estimates prior to the eight-day moratorium (in late March) were equally wrong. Furthermore, it is not only that one or two pollsters were wrong, but that all four public opinion pollsters predicted both times and consistently an impeding FIDESZ victory, whereas MSZP received more votes on the country list in the first round.

The question therefore is far from being why Tárki and Szonda–Ipsos forecasts were wrong or why Medián and Gallup were mistaken in their predictions. It is rather about why the four pollsters well versed in public opinion research arrived at consistently and equally wrong results twice in their professionally impeccable and independent from each other's surveys.

At the same time, this constellation of predictions and reality is rare and exceptional in not only the Hungarian history of public opinion polls, but also in countries with considerably richer historical experiences than ours.

Such a country is, for example, Great Britain, where election polls have existed since 1945 (Moon 1999). The first institute was Gallup, with others (Harris, NOP, MORI, etc.) following suit subsequently, conducting questionnaire surveys of the population in days prior to the elections.[10] Reviewing public opinion poll predictions of the elections between 1945 and 1997 and comparing them with actual results we find that out of their estimates of fifteen elections British public opinion pollsters

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10 In Great-Britain there is no moratorium regarding the publication of polls results. So these examinations
    are conducted and the results are published there on the day or days preceding the elections.

"missed" it only once – in 1992 – to such an extent and in such a manner as their Hungarian counterparts in 2002. It is not only that the mean sum of squared error[11] calculated with respect to voting intentions of the two leading parties (the Conservative Party and the Labour Party) was extremely high similarly to the Hungarian result in 2002 (45.7 vs. 40.6 of the eight forecasts provided by the four Hungarian pollsters), but also that the majority of British public opinion pollsters were unable to guess which of the two major parties would win the elections. Four out of six "predicted" the victory of the Labour Party, whereas Conservatives won by 42.8%, overtaking their rival by 7.6 % (Moon 1999: 106).

This was the worst result ever in the history of British public opinion polls since 1945 (see *Figure 2.1*), the emotional effects of which, as it appears, British pollsters have not been able to recover from to date The failure was so devastating that opinion pollsters joined forces after the elections and spent a lot of time trying to detect the reasons. Moon devotes a separate chapter in his book under reference on the history of British political opinion to the examination of the reasons for the failure in 1992 and draws the attention to several important factors that may also be pertinent with respect to how the Hungarian "black Sunday" evolved in 2002. His analysis suggests that the British failure in 1992 and the Hungarian failure in 2002 were very similar not only in magnitude, but - as we will see later - several analogies can also be observed in the underlying reasons of these failures. In Great Britain the failure can be traced back to several independent reasons: the contribution of late swing, i.e. changes in voters' taking sides with this or that party after the survey which, as such, could not be measured by public opinion pollsters; deviation of voters' participation ratios in accordance with their intention to vote; the different composition of the pools of voters refusing to answer and party choosers according to their intention to vote; "lying respondents"; and shortcomings in the sampling process. All the enumerated factors – with the exception of the last one – contributed to a lesser or larger extent to the Hungarian failure.

So far we have been talking about failure or wrong estimate, but we have not clarified the nature of the failure. Namely, the ultimate goal, i.e. providing an accurate estimate, can be specified with several criteria. In the simplest case in such a way that the estimate of the outcome is aimed at the following: which party will win the elections? In this case the actual result in terms of percentages is not of interest, only the ranking of the parties as outlined by the votes on party lists before the first round of the elections in Hungary (Rank 1). A much stricter criterion than this is when the aim is to predict not only the ranking of parties, but also the ratio of the intention to vote for them (Rank 3). Between these two an interim possibility can also be defined (Rank 2). According to this the proportions of the intention to vote for two parties (*A* and *B*) specify three situations, or three categories: $A > B$, $A < B$, or $A \approx B$. That is, according to Ranking 2, apart from the unequivocal order of the two parties (provided by the first and third indicators) a third

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11 The squared error calculated for one point of time (election) is $\sum_{j=1}^{n} \sum_{i=1}^{k} \left(E_{i,j}^{*} - E_{i} \right)^{2}$, where k is the number of predicted objects (parties), n is the number of prediction (survey), $E_{i,j}^{*}$ is the predicted election result of the i party in the *jth* prediction, E_i is the actual election result of the i party. The mean squared error for one point of time (election) can be obtained if we divide the squared error by the number of prediction, n.

possibility is also permitted: namely that the expected support of the two parties is roughly identical, a neck to neck race and very close results can be expected. The final outcome of such a hard struggle cannot be determined with the methods of opinion polls (if not for other reason then because of the sampling error). Pollsters are able to indicate such a situation in advance provided they arrive at the conclusion that, allowing for errors in sampling, that – for example – the support of party *A* is around 42-45%, that of party *B* is around 44-47% at a 95% confidence interval.
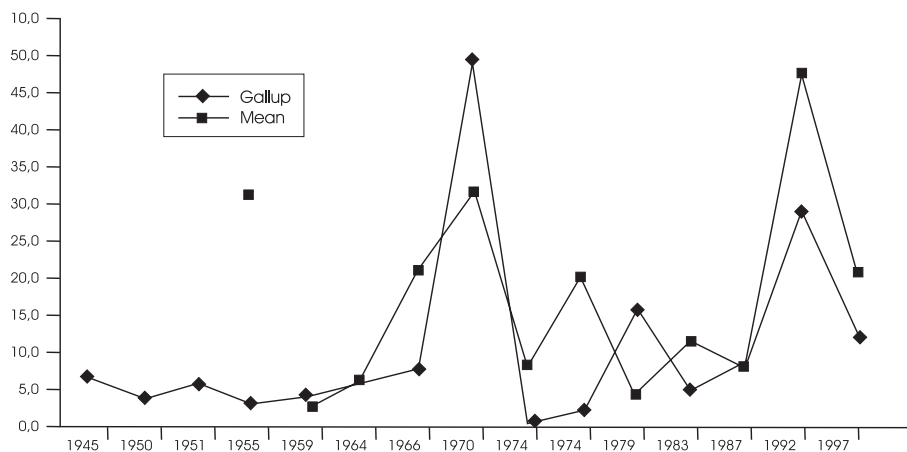

Figure 2.1. The mean squared error in British pollsters' and in Gallup's predictions at the general elections in Great Britain, 1945-1997
Data source: own calculation based on Moon's 1999 data.
The mean squared error have been calculated only for the Conservative Party and the Labour Party. In the calculation only the data of the public opinion pollsters have been considered, the survey results of dailies and weeklies have been neglected because of uncertainties regarding their methodology.

Whichever of the first and second indicators of ranking we consider to be valid with regard to assessing the correctness of public opinion pollsters' estimates of election results, the results of the estimates concerning the outcome of the first round of the elections in 2002 conceal an exceedingly unique incident.

According to the first criterion none of the eight independent surveys that took place within the two weeks were able to predict which party would win the first round. (See *Table 2.1*).

Table 2.1. Statistics of the predictions of pollsters and the results of the first round of general elections in Hungary on 7 April 2002

	Medián		Gallup		Szonda–Ipsos		Tárki		The first round of elections
	Prediction prior to moratorium (end of March)[1]	Prediction before the day of first round of election[2,3]	Prediction prior to moratorium (end of March)[4]	Prediction before the day of first round of election[2,3,5]	Prediction prior to moratorium (end of March)[6]	Prediction before the day of first round of election[3]	Prediction prior to moratorium (end of March)[7]	Prediction before the day of first round of election[3]	Share of votes to country list [number of votes][8]
Fidesz–MDF (F)	43	44	48	47 (46–47)	44	45 (43–47)	47 (44–48)	45.8	41.07 [2306763]
MSZP (M)	39	42	37	38 (38–39)	39	40 (38–42)	37 (36–40)	37.8	42.05 [2361997]
Turnout share ratio (%)	70	?	75	70	72	70 (?)	75	x > 65	70,53 [5685655]
Sample size / [number of voters] (head)	1200	3000	2076	2000	3000	15000	1519	15000	[8061101]
The date of the survey	March 22–24	April 5–6	March 22–25	April 7	March 24–25	April 4–7	March 19–24	April 4–6	April 7
Confidence interval (*)	± 2.8	± 1.8	± 2.2	± 2.2	± 1.8	± 0.8	± 2.5	± 0.8	–

Table 2.1. continued

| | Medián | | Gallup | | Szonda–Ipsos | | Tárki | | The first round of elections |
	Prediction prior to moratorium (end of March)[1]	Prediction before the day of first round of election[2,3]	Prediction prior to moratorium (end of March)[1]	Prediction before the day of first round of election[2,3]	Prediction prior to moratorium (end of March)[1]	Prediction before the day of first round of election[2,3]	Prediction prior to moratorium (end of March)[1]	Prediction before the day of first round of election[2,3]	Share of votes to country list [number of votes][8]
Rank₁ R_1 {1,2}	F	F	F	F	F	F	F	F	M
Rank₂ R_2 {1,2,3}	F ≈ M	F ≈ M	F > M	F > M	F > M	F > M	F > M	F > M	F ≈ M
Squared error	13.03	8.59	73.53	51.57	56.89	19.65	60.67	40.44	–

1: www.median.hu; 2: Magyar Hírlap, 8 April 2002.;
3: Népszabadság, 8 April 2002.;
4: Magyar Nemzet, 29 March 2002.;
5: www.gallup.hu;
6: Népszabadság, 29 March 2002;
7: Magyar Hírlap, 29 March 2002;
8: www.valasztas.hu
*: confidence interval with confidence coefficient 95%, with the maximum variance of estimated variable and number of respondents
(): intervals given by pollsters with corrections of expert estimations of each company
2: the given parameters were not published by pollsters
(?): the interpretation of published data was not clear in the publication

The likelihood of such an incident is very small ($1/2^8$, that is 0.003906). At first sight the situation appears to be better if measured by the second criterion: Medián – making an allowance for sampling errors – measured a balanced, neck-to-neck struggle in both of its estimates, which can be interpreted as predicting the elections to be a struggle with two possible outcomes. It is exactly this balanced struggle that is supported by the somewhat less than one percentage point difference between the two parties in the party list outcomes of the first round. In other words, Medián provided accurate estimates in both surveys if measured by the second criterion.[12] For that matter, the above does not amount to an exceptional and rare incident either: out of eight independent surveys two were accurate (its likelihood is 0.273129).[13] But what happened here is not exactly this, since here also the predictions of all the other firms proved to be faulty; Moreover, they consistently committed one particular error, pointing to the lead of MSZP relative to Fidesz–MDF. The likelihood of an event like this is really very small (p=28/38 that is 0.004268) and yet again draws our attention to the fact that the failure on the "black Sunday" can be traced back to some special, underlying factor or a set of factors independent from the methods public opinion pollsters used.

When examining the possible reasons of faulty estimates the only explanations one can take into account are those that equally affected all public opinion pollsters and are independent from the differences inherent in the methods these firms use in their survey and inquiry methods. In other words, there was not a single factor to play a role in this that may have contributed to the consistent deviations of the results of public opinion pollsters having existed and pointed out earlier (Tóth 2002).

Before anything else two possible groups of factors have to be distinguished. The first one includes effects that could not be taken into consideration in formulating the estimate as they occurred after the time of the estimate, so their effect cannot be measured either. The second one includes effects that public opinion pollsters could have become aware of at the time of the estimate, but due to some reason they did not take the effect of these factors into consideration when they formulated their predictions. Let us see these factors in greater detail!

1) The existence of the first group derives from the very nature of predictions. The assumptions regarding the outcome of elections reflect our perceptions evolving on the basis of the information available for us at the time of the assessment (t_0) with respect to the probable at t_n time ($n > 1$) of the status of a phenomenon being scrutinized. As such, it presupposes that neither any effect nor any event would occur that would have

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12 An indicator related to the strictest criterion listed above (the accurate estimate of the ratios) is to examine the accuracy of predictions in such a way that we compare them to the actual results and check to what extent they have "hit" the actual election results. This purpose is served – among others – by the comparison of the squared error. If we calculate these sums for the four pollsters and the two competing parties Medián comes out as winner: Medián's predictions were the closest to reality, the indicator number belonging to these estimates is the lowest (21.6). Szonda–Ipsos is in the second place (76.5), whereas the most inaccurate predictions were made by Tárki (101.1) and Gallup (125.1). (The detailed calculation of the mean squared error for the British and Hungarian elections' predictions is available at http://www.wargo.hu)

13 The likelihood of two accurate predictions out of eight independent predictions – if in all cases three outcomes are possible – is: $[(26 * 8!/(2!*(8-2)!))/38]$

a significant impact on the phenomenon observed. If one or several events of this kind occur, it is impossible to predict which party voters would vote for in greater numbers, as we do not have any preliminary knowledge as to the time and nature of such events, let alone the impact they would have on the behavior of voters we want to assess. This is when we are dealing with *late swing*.[14]

2) The second group of criteria relate to the nature of responses to the two questions public opinion pollsters asked with regard to voters' probable behavior at the election. No matter how explicit the two questions concerning voters' behavior (intention to vote and intention to participate) are, they can only yield a precise assessment without additional information and assumptions concerning actual behavior of voters if inconsistent voters represent a small proportion only and, as the stricter criterion of accuracy indicates, at least the pairs lack any distortion (see *Appendix 6*). If this were not the case, in addition to the information yielded by asking the two questions, some additional external information would also be needed concerning actual participation rate and the intention to vote as actually manifested during elections. In this case the question concerning the intention to participate (Will you vote at the elections?) is not enough in itself to take us closer to any precise assessment. So the second group of criteria has an impact on not consistently behaving individuals so that it modifies their proportion once in favor of one, then in favor of the other party. The issue here is not only that undecided respondents or those refusing to answer deviate with respect their actual intention to vote, but also that the proportion of those promising to but failing to vote or of hesitating to but eventually casting their vote is also distorted in favor of one or the other party.

Now let us have a look at the factors having contributed to the mistakes of the two series of assessment! We shall consider here only the assessment and outcomes of the duel between the MSZP and Fidesz–MDF parties.

First we shall speak about the observations that can be derived from the results and analyses of public opinion pollsters having been published. Then we shall analyze two factors that have attracted little or hardly any attention in the analyses having been published so far. One of them is related to the televised dispute between Medgyessy and Orbán, the other one to the differences in the seasonal fluctuations of the support Fidesz and MSZP were enjoying. Finally, we shall discuss factors we consider relevant as having contributed to the failure of assessing the outcome, their impact on the behavior of the three players of the elections (electors, parties and public opinion pollsters) and their ultimate consequences.

What information that may shed light on the failure of the election forecasting can be discerned from the surveys carried out by public opinion pollsters prior to the elections? In answering this question we can rely on data and conclusions of the analyses published in the homepage of the Hungarian Gallup Institute, the contents of

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14 Apart from the failure of the British public opinion pollsters in 1992, this phenomenon was the reason in 1948 for the first shocking failure of election forecasts in the United States in 1948, as observed by the Social Science Research Council analysing the causes. Taking this experience into consideration, pollsters in the United States perform their surveys on the days directly preceding the election and, due to the lack of any moratorium – they interview right up until the evening before an election and they publish their results on the same day. See Moon 1999; Campbell et al. 1976, Campbell and Godard 1996.

Kolosi and Tóth's study published in 2002 (Kolosi and Tóth 2002) and statements published in the papers of several pollsters.

The first and perhaps the most important observation from the surveys carried out prior to the elections refers to the high and increasing rate of voters either refusing to answer or being undecided. During the last survey Tárki performed in three days (April 4–6) among 15,000 voters, the rate of those having refused to answer was 12.7% in the first day, 15.1% in the second and 19.7% on the day directly preceding the election. By the same token, the rate of undecided voters (i.e. those having answered *'I do not know'* to the question of party preference) was 15.6%, 14.4% and 12.8%, respectively. This means that Tárki was unable to find out about the intentions to vote of as many as one third, i.e. more than 3800, of decided voters – (representing 77%, i.e. 11,550 individuals in the sample of 15,000) during the survey. Both Gallup (during a telephone survey of 2000 individuals on the day of the election the refusal rate was 20%) and Szonda observed the same phenomenon.[15]

The second observation refers to the fact that the groups of undecided voters and voters refusing to answer did not differ from each other with respect to their answers to other questions concerning their political attitudes, apart from the one referring to their intention to vote (to which they did not answer). (Gallup 2002a; Kolosi and Tóth 2002).

Thirdly, we also have indirect awareness of the fact that the intention to vote of undecided voters and voters refusing to answer significantly differed from the intention to vote of decided voters. This latter group must have consisted of significantly more MSZP than Fidesz supporters provided they did eventually attend the elections. In an assumed case based on calculations of Tárki's survey data MSZP voters constituted 59% and Fidesz supporters 22% within this group.[16] Post-election estimates of Gallup indicated that a much higher proportion of mimicry and undecided voters must have voted for MSZP than Fidesz once they did turn out for the elections.

Other observations relate to Gallup's name. Based on its surveys Gallup pointed out that the elections not only proved that a high majority of undecided voters and voters refusing to answer did eventually support MSZP, but also that the voters having stated their intention to vote for Fidesz presumably stayed at home (see *Table 2.2*, below). The table indicates that, whereas disciplined MSZP supporters, compared to Fidesz voters, constituted the majority of voters having cast their votes by 13.00, the rate of MSZP supporters vs. Fidesz voters not having voted by 13.00 but planning to go was 32% and 53%, respectively. Half of the voters not having cast their votes by 17.00 were also Fidesz supporters.

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15 See *Népszabadság:* Special issue of the elections, 7 April 2002.
16 See Kolosi and Tóth 2002: *Table 2.*

Table 2.2. Party preferences of voters having cast their votes by a specified point of
time at the elections and of voters who intended to vote after that, in %

	Has voted already		Has not yet voted, but plans to vote	
	MSZP supporters	Fidesz supporters	MSZP supporters	Fidesz supporters
By 13.00	45	41	32	53
By 15.00	41	44	33	51
By 17.00	40	45	35	50

Source: Gallup 2002a

On the other hand, surveys Gallup performed prior to the second round drew the attention to an important phenomenon: the more the individual with a specific party preference is in the minority (i.e. the loser's side) in a particular constituency, the more likely the individual chose to answer *'I do not know'* or *'I am not going to tell you'*. This equally applies to Fidesz sympathizers in constituencies with a left-wing majority, and MSZP sympathizers in constituencies with a right wing majority. Conversely, the assumption of "MSZP voters in hiding" refers to an existing pool of voters.

Thirdly, outcomes of the surveys also testified that refusal to answer; moreover distortion of the answer and cross voting rates also differed consistently between the two parties in both the first and second rounds. 9% of participants having participated in the first round changed their intention to vote in the last days (Gallup 2002a). In addition, about 6% of the voters selecting a party before the second round provided inconsistent answers to the questions referring to intention to vote and political attitude. Within this group an overwhelming majority of voters were those who had supported Fidesz's candidate during the survey yet, as it can almost be taken for granted now, they voted for the MSZP's candidate.[17]

Both Gallup and Tárki ascribed the failure of prediction to a lack of knowledge or imprecise definition of the actual intention to vote of undecided voters or those refusing to answer.[18] They were discussing the response patterns of undecided and refusing to answer voters as two kinds of manifestation of the same phenomenon, the

17 This group, "liar-respondents", the existence of which and their contribution to the failure of prediction had already been revealed by British surveys performed in 1992. (Moon 1999: 127–130.). Of course it is not that respondents would have *deliberately* answered misleadingly, but rather that their answers to the questions concerning preferred party were inconsistent with their responses to the questions concerning political attitudes.

18 A prudent analysis and consideration of international experiences prior to the election would have provided a chance for avoiding this mistake (See Niemi and Weisberg, 1992; Campbell 1976; Campbell and Godard 1996). Namely, both the famous failure in the United States of 1948, and the British error in 1992 were due to the fact that the problem of voters refusing to answer had been ignored and, respectively, managed inadequately.

secrecy of the individuals interviewed. They tended to associate with voters' social status as well as social and demographic factors the type of how voters tried to conceal their intention to vote during the surveys. Respondents answering, *'I do not know'* belonged to a lower status, with a lower level of education and were more likely pensioners than those who openly refused to answer, i.e. answering *'I will not tell you'* (Kolosi and Tóth 2002). Gallup arrived at a similar conclusion.[19]

The realization that public opinion pollsters had been mistaken in determining the preferred party of undecided voters and voters refusing to answer prior to the first round of the elections, helped pollsters in working out for the second round methods facilitating more precise forecasting. Using the results of post-election surveys carried out after the first round, they worked out indicators (questions) measuring political attitudes that allowed obtaining relevant information on probable preferred party of voters in hiding. Based on the results of this method, Tárki adjusted in a single step its raw data and determined of preferred party of voters in hiding (Kolosi and Tóth 2002: 363–366). In addition to this, Gallup added yet another step: it adjusted the intention to vote of even those who had revealed it before, but, as it turned out, provided an inconsistent answer to the supplementary questions with respect to political attitudes (Gallup 2002b).[20] Both approaches proved to be successful: the adjusted assessment of both firms was able to predict fairly precisely the outcome of the second round.

Gallup accepted the assumption of "MSZP voters in hiding", yet it ascribed a decisive role to the unexpected weak performance of Fidesz in the results of the first round and drew the attention to the fact that participation of supporters of both parties in voting had been consistently distorted.[21] It also raised the idea of the contribution of "impulsive voters" to this. Impulsive voters have weak party connections; hardly ever go to vote, yet, now, under the impact of the forceful election campaign, decided to vote in the last moment and was more inclined to vote for MSZP.[22] This explanation, however, leaves open the question of why such voters chose to vote for MSZP rather than for Fidesz. Neither is it clear what motivated "impulsive voters" to participate in voting. Had they really been supportive of MSZP rather, some other factors must have contributed to this state of affairs in addition to the intensity of the campaign.

Gallup ascribed the fact that MSZP voters were hiding their preferences to the increasing roughness of the campaign and that MSZP voters having felt themselves to be in a minority and expected a Fidesz victory felt more pressure than Fidesz supporters to give distorted and secretive answers to surveyors when asked about their

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19 MSZP voters in hiding, therefore, belonged to the pool of elderly people of smaller towns and villages who are less informed politically, at the same time are inclined to nurture irrational fear due to their age and, partly, their historical experiences. (Gallup 2002a).

20 As we saw earlier, Gallup diagnosed the manifestation of "liar respondents" also, therefore this procedure constituted a logical response to this.

21 The same situation occurred during the elections in Britain in 1992 (Moon 1999: 114–115.)

22 "These people have little interest for or "involvement" in politics and they do not have any firm commitment to parties. They are so called "impulsive voters", i.e. short-term, instantaneous impacts have strong influence on them. Their opinion fluctuates and it even occurs that they change their party attractions from one day to the other." (Gallup 2002a)

preferred party. Thus, adapting to the public opinion of the assumed majority and group pressure also had a role to ply in bringing about a secretive attitude.[23]

Although Kolosi and Tóth (2002) did not exclude the possibility of the assumption of the existence of "MSZP voters in hiding", they rather reasoned to the contrary. They considered the significance of such voters to be marginal and asserted that the distortions of responses that can be ascribed to voters being in hiding represent only a "fraction of mistakes". As the forecasts themselves represented a deviation of only 4 percentage points at the most if compared to actual data, with this assertion the authors assumed the pool of "voters in hiding" to have been extremely small, of some couple of thousand people only. However, the proportion of voters in hiding must have been much higher than this, taking into consideration the excessive rate of voters having refused to respond as assessed by pollsters prior to the election. Kolosi and Tóth have rather been in favor of the assumption of the existence of "impulsive voters" as being more relevant, more particularly the hypothesis of the *center having left behind* referring to the fact that the camp of Fidesz supporters gradually shifted to the right along an assumed left-right scale in the period between 1998 and 2002, whereas voters positioning themselves in the center (the majority of undecided and voters in hiding belong to this group along such a left-right scale and are evenly distributed on both sides of the scale) felt themselves to be closer to MSZP and thus eventually voted for them. The authors quote some empirical evidence to support this statement. In addition they also reason that voters who rarely turn out for voting and belong to lower social strata vote traditionally for the left. Apart from the fact that this explanation may equally apply to both cross voting for MSZP instead of Fidesz, and to those undecided voters inclined to vote for MSZP rather, it has three major shortcomings.

On the one hand it does not even attempt to answer the question why this "center left alone" – once it felt itself to be closer to MSZP than to Fidesz – chose not to tell the surveyors at the time of the survey that he would vote for MSZP (i.e. sympathized more with MSZP). Why did he choose to conceal the answer ('*I do not know*', '*I am not going to tell you*')? On the other hand, it fails to provide any answer to the question why at all voters in hiding uncertain in their intention went to vote? And why did a part of those do so who did not intend to participate in the elections, although their choice was MSZP? Furthermore, it does not even occur to anybody that, as we can conclude from Gallup's results, a reverse effect also existed: a considerable part of Fidesz supporters having pledged to definitely participate in the elections did not eventually take part in the first round. What may have been the reason for that?

What made, that is, MSZP supporters rather more and Fidesz supporters rather less consistent, and, vice versa, why the ratio of voters behaving inconsistently if compared to their original intentions and improving MSZP's support was higher than that of voters improving the support of Fidesz?

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23 "The pressure of this worry and the local microclimate of the society they obviously felt to be real may have caused them to become 'secretive'" (Gallup 2002a). The existence of the response distorting influence of group pressure is underlined by the fact that, according to Gallup's data, a stable two-thirds majority of the population expected a Fidesz victory from 14 March to 6 April. See: *http://www.gallup.hu.*

Before answering the questions raised here, let us return to the original question for a little while (what factors may have contributed to the failure of election forecasts) and examine one factor not having been discussed so far. This is the televised Medgyessy – Orbán dispute.

The Medgyessy – Orbán televised dispute finally took place at the time suggested by Fidesz, immediately before the elections, in the evening of 5 April.[24] As shown in *Table 2.1*, its impact could not be measured at all by two companies (Medián and Tárki), as they completed their survey before the dispute started. It could also contribute to a marginal extent only to the eventual survey and assessment of Szonda–Ipsos: if the survey covering 15,000 individuals evenly distributed among the four days of the survey, it would have impacted only one fourth of the sample at the most, and would not have had any impact on the rest. Gallup's survey on the day of the election is the only one in which this dispute may have had any impact on actual party preferences of the surveyed individuals. Whether it was indeed so we do not know and, unfortunately, we are not going to be able to find out any more. According to data of one of Gallup's surveys conducted after the dispute, its outcome was more favorable for Viktor Orbán (51% of the respondents in this pool considered him and only 38% saw Medgyessy to have taken the upper hand). As for undecided voters, the outcome was balanced, whereas those not having revealed their party preference 31% saw Medgyessy and, respectively 29% saw Orbán to have come out first. 43% of the interviewed men saw Medgyessy and 32% saw Orbán to have been nicer whereas about the same proportion considered the latter to have been more convincing than the former one. So the dispute, as the data suggest, was rather more balanced than the one four years ago between Horn and Orbán, which resulted at that time, as it was also expected in this case, in Orbán's resounding victory.[25] As everybody, perhaps even Medgyessy expected that Orbán would take the upper hand in the dispute, the lack of this undoubtedly benefited Medgyessy and MSZP.[26] It may also be the case that this outcome of the dispute encouraged those voters to participate in the elections who felt MSZP was closer to them as against Fidesz, yet had doubts prior to the dispute over whether it was worth at all going to vote and face a situation that, as they had believed earlier, they would cast their vote to the "party most certain to

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24 A sharp dispute evolved about the timing of the TV debate: MSZP recommended 26 or 28 March, Orbán, however, held fast to 5 April. So the debate did eventually take place on 5 April.

25 This is confirmed by Lányi's content analysis (2002).

26 It is especially so if considered in the context that, after the antecedences of the dispute many thought the dispute would not even be held as Medgyessy "would not dare to go". (MTI quoted János Áder, vice-president of Fidesz saying in Vásárosnamény that "voters have to decide whether to choose a candidate or the Prime Minister, one of whom runs away from the dispute and intends to hide behind the back of press correspondents taking refuge there from the audience, not undertaking open polemics. The other person, however, undertakes the dispute, does not lay claim to manipulations of the press and looks upon the audience as his discussion partners." See *Népszabadság*, 11 April 2002: 4.) When he did muster up his courage to go and confront the dispute, this in itself was well received by those who so far had not yet decided whom they would vote for or if they would go to vote at all. What happened subsequently ("he did not suffer a K.O.") rather enhanced people's sympathy to him.

lose".[27] That is, changes after the surveys in the intention to vote and intention to participate (late swing) may have contributed to the failure to predict the outcome of the elections.

The analysis of the above-mentioned impact, therefore, indicates that the TV dispute between Medgyessy and Orbán was of a rather favorable impact on MSZP's election outcomes, although we do not possess any empirical evidence with respect to this fact.

ONE ALTERNATIVE EXPLANATION:
THREE COLLECTIVE FALSE BELIEFS

We are attempting below to provide an answer to the failure of predicting the outcome of the elections in such a manner as to give an answer to the cause of every observed phenomena that each contributed, like pieces of a tile, to the strengthening of MSZP and weakening of Fidesz at the elections, if compared to predictions.[28]

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27 An important nuance has to be pointed out here: according to the telephone survey of Szonda–Ipsos the overwhelming majority of the population, 71 % would have preferred the TV dispute to take place before 5 April. Especially village dwellers (79%), people with primary school education (75%) and youth under 40 were of this opinion. 81% of those who considered the outcome of the dispute would have some kind of influence on which party they would eventually vote for considered it would be better to have the dispute take place earlier and not on the last possible day. See *Népszabadság*, 11 March 2002: 4. Therefore it was the people impressed most by the ultimate outcome of the dispute (Orbán did not "blow away" Medgyessy) who agreed the least that the dispute be held on the last day of the campaign as Fidesz suggested. It were them, that is, who presumably preferred to support MSZP instead of Fidesz in consideration of their preliminary views concerning the time of the dispute as well as the eventual outcome of the dispute, once they decided to go to the election.

28 One of the central concepts of the explanation is the so-called "collective false believes" or "collective misconception", which is one of the cases of collective consciousness (Csontos 1999), when a collective consciousness is wrong. Cases of collective consciousness, based on the work of *László Csontos* can be expressed as follows: (A) let X be the parameter of a phenomenon, which can actually assume two values: 0, or 1. If in a society or community (1) everybody believes that everybody else thinks that X=1; and (2) everybody thinks that X=1. In that case this X=1, is part of the collective consciousness of the community irrespective of whether X=1 is actually true or false. If actually X=0 is true, we have a case of collective false belief, if (X=1) is true, then the collective consciousness is "correct" or "true". It is a special case that collective consciousness may also exist if only (1) is true (Csontos 1999). In this case the statement of the collective consciousness that (X=1) is absent from each individual member of the community whereas it does exist in everybody (e.g. "Hungarians consider themselves to be pessimists" may be part of Hungarian collective consciousness even if nobody considers himself to be a pessimist in Hungary). Moreover it can also be established that there can be three types of relations between (A) and the two (1) and (2) conditions of collective consciousness. They are either not connected in any way, i.e. the status of X is independent from what members of the community think of it (e.g. the future of the Sun, its existence or absence is independent of what members of the society think about.) But there can be a relationship, when (1) and (2) themselves cause X=1 to materialize. In this case we are confronted with a *self-fulfilling prophecy*. Or, (1) and (2) result in X=1 not materializing (i.e. X=0 happens), which is nothing else but a *self-destructing prophecy*. See more Merton 1968; Boudon 1979.

What are these phenomena? Let us sum them up briefly:

1. during the surveys the number of voters in hiding was high and steadily increased;

2. a higher number of voters in hiding compared to their ratio within the pool of those who were certain to vote supported MSZP than Fidesz;

3. voters in hiding most probably did turn up for voting; even the ones who originally had not been certain of their intention to vote. If they did turn up, a higher number of them than their ratio among decided voters supported MSZP than Fidesz;

4. the number of voters not behaving consistently was also high among those who intended to choose a party and to vote: more of them voted over to MSZP than to Fidesz.

5. The number of those having stayed at home (i.e. behaving inconsistently) was higher among Fidesz supporters and those who promised definitely that they would vote, than in the corresponding group of MSZP.

Going back to the voting behavior types analyzed in *section 1* and using the same symbols we can write, based on 1 to 5 above, for MSZP and Fidesz, the proportions of the weight of inconsistent behavior types having distorted the prediction described in *Table 1.3*. We do not have any information with respect to the proportions of the last group mentioned here (cross-voters becoming active), however, as in the case of both the electors becoming active and cross-voters observations refer to an MSZP dominance, it would negate the facts to assume that whatever can be proved for both groups separately, would not apply here also.

If looking at *Table 3.1* we can see that in this situation the requirement of precise outcome prediction as described in (1) could not even have been complied with. In the first place, due to distortions in the group of the lazy if the number of consistently behaving MSZP voters was higher than that of Fidesz voters and also due to all the other relations, if the situation was reverse.

Public opinion pollsters, therefore, using their traditional technique in Hungary (question referring to preferred party complemented with questions probing into the intention to participate) had been doomed to failure already before the first round of the elections in 2002. So we have to answer an unequivocal no to the question raised in the title of the study if the pollsters only used in their estimates the information they derived from the answers to the above two questions. Instead of considering incidental a wrong prediction of the outcome of the elections by any of the companies, it appears to be rather more incidental if the pollster manages to provide a correct prediction. It means that the two predictions of Medián having proven correct on the basis of the weaker, third criterion of success, can rather be ascribed to incidence and an unintended interplay of fortunate circumstances than to the use of consciously chosen indicators in variance to the rest of the institutions.

But it still remains to be answered what was the reason for the extreme situation having evolved before the elections of 2002, in which the number of voters choosing to behave inconsistently systematically favored MSZP and placed Fidesz at a disadvantage?

Table 3.1. Relations between inconsistent behavior samples of electors or behavior types influencing favorably the outcome of the elections for MSZP or Fidesz

Phenomena	Relations	Source of observed phenomena
Among "*lazy*" there were more Fidesz than MSZP supporters	$E^*(M^*) \cap nE < E^*(F^*) \cap nE$	Gallup 2002a
Among "*cross-voters*" there were more MSZP than Fidesz voters	$E^*(F^*) \cap E(M) > E^*(M^*) \cap E(F)$	Gallup 2002b
Among "*voters in hiding*" there were more MSZP than Fidesz voters	$E^*(N^*) \cap E(M) > E^*(N^*) \cap E(F)$	Kolosi-Tóth 2002 Gallup 2002a, 2002b Tárki 2002a
Among "*voters becoming active*" there were more MSZP than Fidesz voters	$nE^*(M^*) \cap E(M) > nE^*(F^*) \cap E(F)$	Gallup 2002a
Among "*voters in hiding becoming active*" there were more MSZP than Fidesz voters	$nE^*(N^*) \cap E(M) > nE^*(F^*) \cap E(F)$	None (Medgyessy – Orbán TV dispute)
Among voters "*becoming actors and voting over*" there were more MSZP than Fidesz voters	$nE^*(F^*) \cap E(M) > nE^*(A^*) \cap E(B)$	None (can be logically deduced)

Explanation:
"*" signals intended behaviour of electors as observed in the surveys, whereas normal letters denote actual behaviour during the elections.
F: Fidesz voters/supporters
M: MSZP voters/supporters
N: responding 'I do not know', 'I do not tell it'
E: participation in voting
nE: not participating in voting
$\cap$: 'and' relationship

In our view, this can be ascribed to the interplay and coexistence of several factors, which, if taken separately, would not have caused the failure of the series of predictions at all, but given their co-existence and mutual impact, they eventually did. Now let us look at what it is all about!

For this, we shall have to anticipate to initial preconditions:

A1) Public opinion pollsters published the results of their predictions in the months prior to the election. (This is what they have always done, but this fact is indifferent now from the outcome of the predictions with respect to the results of the elections).

A2) All three players involved in the elections, i.e. the electors, parties and those assessing the electors' decisions (public opinion pollsters), guided by their favorable experiences of earlier assessments, seriously gave credit to the outcomes of the surveys of voters of this or the other party. If one pollster pointed out a decline or growth in a party's support, both the parties and voters (monitoring public opinion surveys) interpreted it as an actual decline or increase of support. And public opinion pollsters also believed in the validity of their results (could they have done otherwise?).

Now let us consider what these surveys indicated in the six months preceding the elections! Let us now focus on the duel of the MSZP and Fidesz and, take from the outcome of all surveys only deviations in the support of MSZP and Fidesz among the party voters certain to vote. It has to be admitted that, with Gallup's exception, all other institutions saw more or less similar tendencies in how MSZP's and Fidesz's support was shaping up (see Figure 3.1). Although at various levels, the difference between MSZP's and Fidesz's support can be depicted in a similar way if using Medián's, Szonda's and Tárki's data. This difference increasingly dwindled between November 2001 and January–February 2002, then again increased by March. In January-February, both Medián, Szonda–Ipsos and Tárki measured a smaller or higher degree MSZP superiority among party voters certain to vote. This superiority had disappeared by the end of March and was replaced by Fidesz powerfully taking the lead. Yet an additional difference between public opinion pollsters can be detected in the last survey following this (immediately preceding the first round): whereas Szonda considered there was no change, Gallup, Medián and Tárki registered a certain degree of melting in Fidesz's superiority.
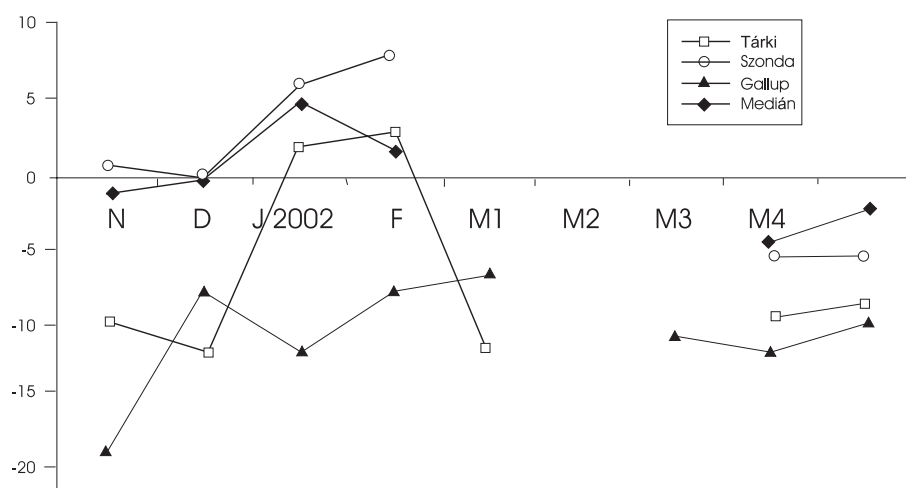

Figure 3.1. Estimates of the four public opinion pollsters with respect to differences in the support of MSZP and Fidesz-MDF among firm decided party voters, in percentages (%), November 2001: April 2002.

Note: M1, M2, M3, M4:first, second, third and fourth week of March. We synchronised the predictions of each pollster by illustrating them for the week on the last day of which the data was surveyed.

Based on the above we have to draw attention, given the two basic conditions mentioned above, to two consecutive events:

E1) Three out of four pollsters (Szonda, Tárki, Medián) registered the strengthening and rallying forth of MSZP during their January and February surveys.

E2) Tárki's first survey in March showed a considerable "reverse" tendency: a critical Fidesz superiority (of 10 percentage points!). Results of the survey Szonda carried out in the week following that, also pointed to a similar tendency, however, in

their case, MSZP still indicated some degree of superiority. Later, the end-of-March survey pointed to a clear Fidesz superiority.

After this, let us consider the six factors or steps that, in our view, eventually resulted in the failure of predictions!

F1) Collective misconception in the assessment of voting attitudes in favour of Fidesz

A decisive factor contributing to the faulty assessment of the results of elections was that both public opinion pollsters and Fidesz, on the side of parties, held mistaken assumptions with respect to the voters' attitude to Fidesz. They expected that the publication (in late March) of the public poll results pointing to an unequivocal Fidesz superiority would spark a bandwagon process ("Join the winner!"): i.e. that voters who had been undecided that far would start thinking about voting and eventually would vote for Fidesz if seeing Fidesz in the lead. On the contrary, the underdog effect prevailed instead in the elections held on 7 April ("Fidesz leads [no good], therefore we should not vote for Fidesz.") The same misunderstanding played a role in the eventual outcome of the elections.

Public opinion pollsters had two options to choose from when publishing their estimates of the outcome of the election: they will either publish raw survey results without adjustment, or they will calculate, from the outset, all probable changes that would occur in the opinion of party voters following the publication of the results. Had they assumed that the impact of the bandwagon effect would prevail in the case of the leading party, and the assumption would be correct in other respects, then the adjustment and publication of the adjusted outcome would improve the situation of the party concerned. On the other hand, not adjusting the results would not have had any impact on the final outcome of the elections. The situation is its reverse in the underdog scenario. Namely, in this case, a failure to adjust the figures and publication of unadjusted figures worsened the situation of a leading party, moreover, if powerful enough, it could even reverse the eventual outcome of the elections. If the preliminary results had been adjusted and adjusted results had been published, they would not have changed the eventual outcome of the elections. We are aware of adjusted figures that eventually did play out (see Simon 1957).

Accordingly, an unadjusted publication of the estimates with respect to voters' opinion concerning Fidesz during the last surveys of March were enough in themselves to contribute to the fact that there were less voters in the first round of the elections in April in favor of Fidesz. A similar assumed case is being depicted in *Figure 3.2.* using Simon's model of 1957. Here we denoted with E the estimates of public opinion pollsters of voters' opinion and with S the real opinion of voters with respect to Fidesz. As it can be seen in the Figure, the dotted line of 45% shows the cases in all of which $S = E$, i.e. preliminarily estimated and actual voting ratios coincide and outcome estimates are precise. The $S = f(I, E)$ function shows how the underdog effect is manifesting itself. E^* stands for the voters' opinion of Fidesz derived from the adjusted estimate, whereas voters' actual opinion of Fidesz will be marked S^*. E^*, conversely, has two important features: if published, it will turn true without changing the outcome of the election. We have illustrated another estimate in the Figure, marked E'. It stands for raw outcome derived from data of the surveys of public opinion

pollsters of voters' opinion of Fidesz. In this estimate, if it were not for the underdog effect, the proportion of voters actually voting for Fidesz would be I precisely. Yet, given the effect exists and acts, we depicted it in the Figure with an extreme power and, after unadjusted results of surveys were published, opinions in favour of Fidesz radically decline from I to *S'*. As *I > 50% > S'*, it means that due to the publication of unadjusted results the outcome will reverse and Fidesz will eventually lose the elections.

Clearly, the above is just an illustration of the interplay between tendencies in voters' opinion with respect to Fidesz, on the one hand and the publication of data by public opinion pollsters, on the other. Yet, as every similar illustration, it may provide important information for us to realise that confusing the impact of bandwagon effect and the underdog effect and its misinterpretation may not only bring about a failure of the estimates of public opinion pollsters, but may also affect the eventual opinion of voters with respect to Fidesz. We are unaware of how powerfully the underdog effect prevailed in the last week of March, when late March surveys were carried out, but we do assume that it must have existed to some degree already then.
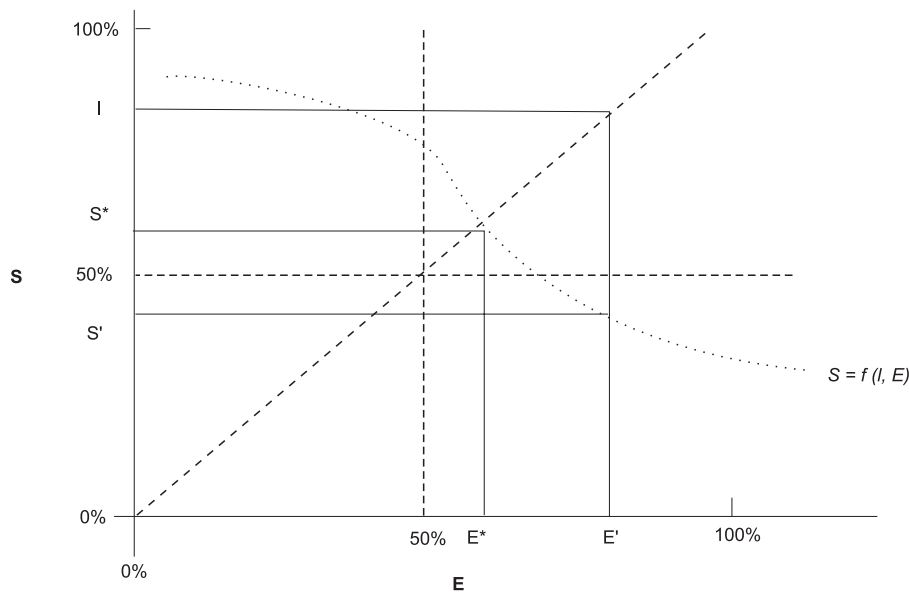

Figure 3.2. The impact of the underdog effect on Fidesz's election outcomes following publication of adjusted and unadjusted public opinion pollster predictions
(S < I, if E > 50%)

The misunderstanding of the above two impacts decisively contributed to the fact that pollsters were caught unawares (and wrong) in adjusting the opinion of voters certain to participate in the elections, but answering "I do not know" or refusing to answer by using the ratios prevailing in the opinion of decided voters. Moreover, they also missed to take into consideration that they might also wrongly calculate actual

participation data.[29] Had they been aware of the underdog effect taking the upper hand with respect to Fidesz, they should have been guided by the following assumptions in their estimates of 7 April:

a) Eventually more people than expected from undecided voters will turn out for voting, and the majority of these people will not be in Fidesz's favor;

b) The number of MSZP voters must be considerably higher among decided voters in hiding than that of Fidesz voters if compared to decided voters.

In addition to this, Fidesz itself misinterpreted the situation and, for that, two times over. First, when it failed to consider the fact that its campaign loaded with confronting messages would rather take away than bring votes if it is in a leading position. Second, when seeing public opinion predictions published on 29 March, it expected the bandwagon effect to take the upper hand given its leading position in all constituencies as against MSZP, and it was confident that a sufficient number of Fidesz voters will turn out for voting joined by a number of undecided voters. Had they been aware of the fact that they were already dealing with a reverse effect, they should have immediately changed their strategy so as to disarm disillusioned voters and encourage its own voters to participate in great numbers in the elections.[30]

F2) Confronting messages of Fidesz

Besides, the erroneous predictions can also be ascribed to the fact that Fidesz and the movements in its favor (like, e.g. Magyar Polgári Együttműködés Egyesület [Hungarian Association of Civil Cooperation]) actively engaged in a powerful activist and, at places, confronting campaign in the last 6 weeks preceding the elections. Most certainly MSZP's moving forward in January and February indicated by several pollsters (E1) also had a role to play here. The messages of this campaign, however, were not so much directed against MSZP, than rather at voters not in favor of Fidesz. It wished to convince them that "Fidesz had no alternative". Fidesz continued to pursue this campaign strategy until the first round of the elections. However, instead of mobilizing people directly and calling upon them to participate in voting in favor of Fidesz, it tried to use intellectual arguments and facts ("Contract with citizens") to convince voters of the goods Fidesz brought in its government position ("Future has started"). This strategy rather more convinced former Fidesz voters of the correctness of their decision and was less capable of attracting new voters from the pool of politically less involved and undecided voters (answering *'I do not know'*). These voters, namely, unlike decided voters, belonged to social layers of lower status and schooling (Kolosi and Tóth 2002), who are less perceptive of similar messages based on intellectual arguments. On the other hand, several messages of Fidesz articulated during the campaign were confronting in nature. Let us mention only two nuances

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29 We have to add here that their earlier empirical results confirmed the appropriateness of the solutions they applied (Kolosi and Tóth 2002; Márián 2002).

30 This shift occurred immediately following the first round. Fidesz rather precisely and quickly realised its significance. The party had reserves to rely on among voters in favour of them and these reserves had and were possible to mobilise: first those Fidesz voters who, although said during the survey that they would certainly vote and eventually did not turn up to vote in the first round. On the other hand, as a quick shift, it entered into a powerful anti-MSZP campaign.

here, both occurred in mid-late March: a) acceptance of the idea of "open voting" by wearing rosettes before the first round,[31] and b) the message of the fatal "let them hang themselves" speeches of 14 and 23 March by of one of Fidesz's vice presidents, László Kövér.[32]

F3) Response distortion, hiding

After predictions of Fidesz leading positions were published (A2, E2) and certain Fidesz messages to voters contained confronting contents (F2) and everybody gave credit to the realness of published predictions (A2), the resulting process led to distortions in public opinion data. In the first step undecided voters and a group of decided voters in response to Fidesz's confronting messages[33] addressed to voters and giving credit to the estimates of public opinion pollsters of Fidesz's leadership position, had three possible choices when responding to the question of which party he

31 This meant that everybody who wished to vote for Fidesz-MDF, should continue to wear the rosette of the national colours even after 15 March, the day of Hungary's national holiday until the day of the elections.

32 Kövér used the motif of suicide when explaining his position concerning the possibility of organising the Olympic games in Budapest at several election meetings in the provinces. In the rural town of Szombathely (West-Danubia) he said precisely the following: "...to benefit one of our most dynamically developing sectors, tourism. So just let us accept for a moment that we are capable of doing that much. And that we have become an incapable, unsuitable, untalented people during the past couple of decades. Well, then I say to this, ladies and gentlemen, that it is not worth living a life like that. So, if this is what we think, it is better for us to go down to the cellar, look for a nice piece of strong rope and a relatively strong beam and a nail, and let us rather hang ourselves. (Subdued laughter in the room). But first I would like to ask those who want you believe this, and have been trying to hammer this into your head that they should set an example at least (10 minutes applause) and once they have already all finished, we should rather stop for a minute and consider that we might perhaps do better without them (loud applause)." (See in Hungarian: *http://www.nyugat.hu*). Let us only make three remarks here. Kövér used a standard *ad absurdum* language device. If in the heat of dispute, for example, someone says: "If you do not like it that way, let you drown", which, of course, does not mean that the speaker wants to see his partner dead. But a statement like this definitely reveals a strong emotional intensity and may evoke a similarly strong and negative emotional intensity in the person addressed. On the other hand Kövér in this device referred to suicide as an example, in a country, where the suicide ratio is publicly known to be high (and its self-hanging variant is far from being the most frequent) in the country's relatively backward county (Békés), where the population may have been especially sensitive to this reference. (Moksony's study points out that backwardness critically enhances the incidence of suicide in rural areas, which is further aggravated by the influence of the suicidal subculture as measured in past suicidal frequency. See more in Moksony 1995.). It is not by chance that Fidesz's speech of 14 March in one of the cities of the country's most progressed region (West-Danubia), which was recorded, did not resound at all (see: *http://www.nyugat.hu*). It became more widely known subsequently – and, as it turned out, the tape recording had not been lost either – when the speech given in Békéscsaba (in Békés county) on 23 March became a topic of political dispute after 28 March (in the result of an article of *Népszabadság*). And, finally, the realistic description of the act, the precise, *well-defined* description of the preparations for suicide may have powerfully influenced those who read or heard the speech.

33 "Vote with the rosette" and its underlying explanation can be briefly described as follows: "Fidesz has done a great deal in the recent four years. It laid the foundations of the future. Future has started. Fidesz stands out for the true national spirit, the other side is against the nation and religion. Many vote for Fidesz and they all wear rosettes. Why do not you also wear a rosette? *Are you not voting for Fidesz*? If *not*, you are against the nation and favour anti-religious forces. *You are also* against the nation and religion."

favored: a) to resist; b) to avoid; c) to submit. In the first case he either chooses to tell which party he favors, which is not Fidesz; or resists by choosing the option of '*I will not tell you*'. In the second case he avoids the uncomfortable situation and gives the answer '*I do not know*'. In the third case, being more or less convinced (or merely practicing conformity) he would mark Fidesz to be the chosen party. Some of those having supported MSZP before were very likely to have chosen the responses '*I do not know*', '*I will not tell you*' – they became MSZP voters in hiding.[34] Those who had earlier been undecided about which party to vote for and continued to be undecided, were likely to become increasingly concerned about the confronting messages of Fidesz. The behavior or rather the shift in the behavior of a part of this group, as it will be seen later, decisively influenced the outcome of the elections, on the one hand, and the emergence of wrong predictions with respect to the outcome, on the other hand. This response distortion could be most powerfully felt when the last estimates were prepared before the first round, but it must have already been lurking to some extent in the outcome of the surveys of late March.

F4) Measurement of distorted results and collective misinterpretation of these results

Partly in the result of distorted answers public opinion pollsters registered a further strengthening of Fidesz. In their late March predictions all of them - even Szonda–Ipsos and Medián also – indicated Fidesz's superiority. However, these results had already been distorted due to the fact that partly F3), partly the differences of regular monthly fluctuations had been disregarded and (unlike reality) their overweighed Fidesz's and underweighed MSZP's voters' intention.

Both parties believed the results were realistic. Fidesz interpreted them as testifying to the success of the activist campaign they had been pursuing that far and that they managed to convince voters of the correctness and usefulness of their policy, and that the otherwise confronting messages had a role to play in this. So they chose not to modify their strategy they considered being correct (but actually wrong). This sparked off a whirling like process, which simultaneously damaged the base of Fidesz's voters and virtually improved the figures indicating Fidesz's popularity in the predictions of public opinion pollsters.

MSZP interpreted the results that now it was really a losing case and they would have to pull themselves together to really be able to turn around the results. MSZP's strategy was based on attacking Fidesz. Therefore they continued to enhance the

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34 Butler and Kavanagh drew the attention to an impact analogous with the above, as analysing the causes of refusal to answer or distortion during public opinion polls of the 1992 elections in Britain: "Labour's campaign, the pollsters, the broadcast media and the press all submerged the Tory vote. Submerged it because people were guilty and because a kind of social dynamism had been established that made Labour more acceptable than the Conservatives. This led people to be publicly embarrassed and uncertain about expressing support for the Conservatives. But it was also submerged and in the sense that many people hid from themselves their real intentions, feelings and view of where their self-interest lay." See Butler and Kavanagh 1992, quoted by Moon 1999.

intensity of these attacks.[35] In the meantime they noticed the destructive nature of Fidesz's confrontation in some cases strategy aimed at convincing voters (the slogan of Fidesz was: "There are two Hungarys") and, with an increasing emphasis, they started to offer to voters who became hesitant and confronted with a choice due to this, another possibility in the spirit of peace and consent. They did not forget either about the need to mobilize voters who desired a change of government.

Voters themselves were also credulous of the results published (A2, F3). Fidesz supporters were convinced that "They were sure to win!" MSZP supporters, on the other hand thought that they really became a minority. This resulted in even more significant distortions in the answers (F3). (The number of voters in hiding, and, with them, that of MSZP voters in hiding increased[36] – this was the observation of public opinion pollsters during their surveys prior to the first round). On the other hand, exactly after the March results were published, undecided voters started to join MSZP. I.e., the influence of the underdog effect started to prevail, of which neither public opinion pollsters, nor parties or voters were aware.

Public opinion pollsters also believed their results were correct. They showed an unequivocal Fidesz superiority in their late March surveys and their surveys preceding the first round of the elections yielded the same results. So they sat down in front of television cameras at 7 p.m. on 7 April self-confident and calm, perfectly confident about predicting the definite victory of Fidesz.

F5) Unfolding of the underdog effect

The unfolding of the underdog effect required the publication of late March predictions of the elections and that all players should fully interpret them as a

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35 László Kövér's "hang themselves" speech became a topic of dispute at this time, in which the decisive role belonged to MSZP all along the way by MSZP and not Fidesz leading the topics. In this discourse Fidesz committed several communication mistakes. For example, it was inconsistent in its self-defence: while Orbán tried to diminish the significance of the case, other party leaders and Fidesz HQ itself denied that it ever happened. First they denied that such a thing could have been said, then they had to act on the compulsion that the tape-recorded speech was found and published on the net by www.nyugat.hu; from here it became transferred to more frequently visited sites. MSZP took over the lead in communications. László Kovács (President of the MSZP) wrote an open letter to Ferenc Mádl (President of the Republic of Hungary) ("MSZP's president appeals to the Head of State to condemn those who destruct social peace. In his open letter László Kovács called for the Head of State and the major governing party to state that they do not consider Hungarian citizens to be their enemy, a burden and a road-block to be eliminated, but they see all the ten million Hungarian citizens as honest people, who are interested in the nation's well being and in cooperation." See *www.index.hu*), had a campaign film shot, in which, although not word for word, the hanging motif used by Kövér also figured ("Those who are not happy about the government's activity and success should hang themselves. Mom, do you know what this means? - can be heard in MSZP's latest campaign film, in which the narrator draws voters' attention to the fact that it is them who decide who will come to power" see *www.index.hu*), organized a protest march, where protestors appeared scenically wearing a knot in their neck, etc.

36 This nuance is well described by the theory worked out by Noelle-Neumann, the "spiral of silence". According to this representatives of an opinion considered to be unpopular or belong to the minority, tend to conceal their convictions of this kind from others. And as these views hardly appear in the course of social contacts, it appears as if few people agreed with such views, less than their actual number. This makes representation of such views even less popular and still less will be the number of people who dare to publicly represent them. See Noelle-Neumann 1984.

significant Fidesz lead (A1, A2). It also required that Fidesz should continue to forward confronting messages to the voters in the first week of April (F2). This resulted, on the one hand, in distortions of answers and hiding (F3), as well as in generating an opposition to Fidesz in undecided voters. These attitudes prevailed in the elections through a) undecided voters intending to vote turning out for voting, but not casting their vote to Fidesz; whereas b) a part of undecided voters, who did not intend to vote when asked earlier, did the same. These two groups constituted a more massive proportion of undecided voters than that of those who had been convinced by Fidesz's leading position and campaign of the need to vote for Fidesz.

F6) False believes in the expectations concerning voters' behavior during the elections

We have left to the end the third collective false belief, which was exceedingly important from the aspect of outcome predictions. According to this, in the wake of F4) Fidesz voters were convinced on the day of the elections that Fidesz would win in the first round. This belief essentially determined their decision with respect to their participation in voting.[37] On the other hand, voters in favor of MSZP and undecided voters voting for MSZP may have considered that Fidesz was about to win, therefore every other vote not for Fidesz would be needed (F5). So, whoever could, went to the ballots.

Consequences

It was therefore the combined effect of the above factors that generated the "land-slide" victory of MSZP compared to forecasts. Although the victory was only with a small majority (hardly more than 55 thousand more voters voted for MSZP's than for Fidesz's country list) but the victory took not only public opinion pollsters, Fidesz, which had considered itself to be the ultimate winner, but also MSZP and voters by surprise. All of them had thought that Fidesz voters were in the majority and Fidesz would win the elections.

Fidesz's messages, acceptance as a reality of the results of public opinion pollsters resulted in distortions in responses (MSZP voters in hiding) already in late March. This distortion continued to increase in the surveys preceding the first round.

Confronting messages, the superiority of Fidesz as measured by public opinion pollsters, and effective MSZP responses to this situation during the election campaign, increasingly called forth the underdog effect. Then, in the elections, the impact of MSZP voters in hiding prevailed simultaneously with the feeling of non-Fidesz voters that they represented the minority and there was a great need for their votes. Many turned out for voting from among those who were not certain about their participation in the election and did not reveal which party they favoured. They eventually voted for MSZP, the party in Fidesz's opposition (*becoming active*).[38]

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37 They thought: "We shall win all the same, my vote is not really necessary". See Gallup 2002a and Marián 2002.

38 They will have to solve the same two tasks with which American and British public opinion pollsters were confronted after 1948 and 1992, respectively and which they successfully solved. (See Moon 1999; Campbell and Godard 1996; Lavrakas 2000)

Thirdly, there were voters who, getting rid of the compulsion to comply with an assumed peer pressure in the context of the elections voted across: instead of Fidesz they indicated they would vote for in the public opinion poll, they cast their votes for MSZP (*cross voters*).

Fourth: a considerable part of voters favouring Fidesz, accepting that late March predictions of public opinion pollsters were credible, expected a definite victory on the day of the election. They eventually thought they could as well stay at home, because it would not endanger what promised to be a sweeping victory for Fidesz *(lazy)*. [39]

SOME CONCLUSIONS

Failure of predicting the outcome of the elections, therefore, was a result of the relatively great weight of the behavior types of inconsistent voters and their differing proportions among voters of the two parties. Such voters were primarily the *a) ones becoming active b) MSZP voters in hiding c) lazy Fidesz voters and, to a lesser extent d) cross-voters.*

The process having sparked these movements was rooted in three false collective beliefs having evolved before the first round of the elections in 2002. On the one hand

1) the erroneous judgement of the prevalence of the bandwagon and the underdog effect with respect to the leading party, Fidesz;

2) on the other hand, the acceptance and interpretation as being realistic of the predictions of public opinion polls having been systematically distorted;

3) thirdly the mistake of voters in guessing which party would probably win the elections. Not only public opinion pollsters were, therefore, mistaken, although we know this is not a consolation for them, and not only with respect to predicting election outcomes. It has to be seen also that the third collective false belief derived from the first two ones and, eventually, it was the combination of all the three constituting the cause for the erroneous outcome estimates of public opinion pollsters.

What lessons can be drawn from the above conclusions?

First of all parties have to be very cautious and circumspect in defining when to launch a "full fledged attack" for winning the favor of voters, how far they can go with their confronting messages. It is also good for them to know what image voters have about them and how the pool of voters they want to win over to their side will probably respond to the various types of messages. Furthermore, they also have to be able to find out the probable direction and strength of the voters' responses with respect to them once the results of public opinion polls are published prior to the elections. And in that they have to be prepared to calculate with the impact of not only the bandwagon, but also with the underdog effects.

Tasks seem to be clear for public opinion pollsters if they want to provide precise outcome assessments. On the one hand they have to determine which party voters in

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39 In their analysis Letenyei and Takács also suppose the existence of underdog effect in the first round of elections. But they completely ignore the effect of lazy Fidesz voters and the MSZP voters in hiding which were important factors in the failure of forecasts. See Letenyei and Takács 2003.

hiding would probably vote for ('*I do not know*' or '*I will not tell you*') and guess the probability these groups of electors will be likely to favor this or the other party.

On the other hand, it would be at least as important to precisely predict the intention to participate. In this case, however, it does not suffice to define the number of those who said they would not go to vote and eventually they did participate in voting, but also the number of those who promised that they would definitely participate in voting, yet it was highly probable that they would not turn out for voting. To complicate things even further, they will have to assess these ratios for not only the whole electorate, but in line with the responses to questions related to which party voters prefer.

Thirdly, it has not been evident so far, but it would be worth, at least prior to the elections, long-term data series of the estimate outcomes of public opinion pollsters. Not so much for the reason that it would be possible to predict election results from them, because it is not possible. Rather because, prior to the elections, it is possible to more precisely assess and interpret differences between the results of each public opinion pollster and point out recurring deviations evolving in the long run, separating from them the ones that carry some meaningful information with respect to the actual state of the political battle.

The fourth possible direction of analysis, which is indispensable for arriving at more precise assessments, is a systematic monitoring and content analysis of the communication and messages of political parties. This may lend a hand to public opinion pollsters in defining the probable attitudes of voters.

The last lesson with respect to public opinion pollsters concerns publishing of raw data and adjusted predictions. We have seen above how dangerous publication of raw data can be in certain situations (leading to the prevalence of underdog effect). But data adjustment can be just as much a slippery ground. Where can one draw the line between the extent to which public opinion pollsters can rely on the outcome of the survey and other information on which they can base their assessments? One extreme case would be that of a public opinion pollster, the assessments of which rely only in part (an for that a not so much significant one) on data survey as one piece of information, the other one would be that of a public opinion poll firm relying exclusively on information derived from data survey with raw results being published. Yet it was exactly in this study that we demonstrated: this latter method is meaningful only in especially fortunate situations, in other cases it can result in uncalled for effects. Adjustment of the assessment and collection of supplementary information are indispensable to consistently provide a precise estimate of the outcome. We cannot say that publication of raw data is honest and that of adjusted data manipulative. The latter case can be fair if corrective steps and their components are provided together with the adjusted estimate.

The first round of the elections in 2002 also had its morale for voters, especially Fidesz voters. Their belief in victory, as "self-destructing prophesy" (*prophétie autodestructrice*[40]), prevailed as an expectation undermining its own foundations. As they had given credit to the predictions published by public opinion pollsters prior to

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40 Merton calls attention to this notion and Raymond Boudon uses this as a part of *processus oscillatoires,* (See Merton 1968; Boudon 1979: 212–220 and Boudon 1989).

the first round, they were convinced that their party would win; therefore several of them did not bother to go to vote. Thus predictions of public opinion pollsters proved to be a wrong guidance with respect to decisions concerning participation in voting. It is probable that they will rely on such results much less from now on and in the future considerably less credit will be given to the validity and precision of predictions. But it is not a problem, either. We are confronted here, namely, with a self-regulating process: exaggerated expectations with respect to predictions of public opinion pollsters (also fuelled by the four predictions pointing into the same direction and published in March and in the evening of the first round, as well as the other four predictions delivering the same results as the previous ones) created a situation that necessarily brought about the weakening of these expectations.

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APPENDIX
Expected and Actual Voting Behaviour

Basic assumptions:

$$E^* + nE^* = E + nE$$
$$E^* = E^*(A^*) + E^*(B^*) + E^*(N^*),$$
$$nE^* = nE^*(A^*) + nE^*(B^*) + nE^*(N^*),$$
$$E = E(A) + E(B),$$
$$A^* = E^*(A^*) + nE^*(A^*),$$
$$B^* = E^*(B^*) + nE^*(N^*),$$
$$N^* = E^*(N^*) + nE^*(N^*).$$

Predictions and actual results

Taking into consideration the behaviour types described in *Table 1.2*, the estimated ratio of the support of the two parties based on the outcomes of the pollsters' surveys can be formulated as follows:

$$\frac{E*(A*)}{E*(B*)} = \frac{E*(A*)E(A) + E*(A*)nE + E*(A*)E(B)}{E*(B*)E(B) + E*(B*)nE + E*(B*)E(A)} \tag{2}$$

The first term in both the numerator and the denominator on the right hand side of the equation constitutes the number of consistently behaving people: i.e. they will actually act at the elections as they responded to the two questions during the survey. The second term constitutes a group of lazy people, namely those who had a definite intention to vote when polled, and said they would definitely go to vote, but then eventually they abstained from voting. The third term constitutes the number of those who change their intention to vote, and become cross-voters, i.e. they vote instead of one party to the other. It can be seen that estimates themselves are "noisy", and they do not only contain the group of consistent voters.

If we consider the groups of consistent voters to be the real ratio of the support of *A* and *B* parties, then inconsistent answers will fail to influence this ratio, if the ratio of their total and the ratio of consistently behaving voters is equal:

$$\frac{E*(A*)E(A)}{E*(B*)E(B)} = \frac{E*(A*)nE + E*(A*)E(B)}{E*(B*)nE + E*(B*)E(A)}$$

Similarly to the estimate, the real proportions of *A* and *B* parties' support as manifested in the elections can be formulated as follows:

$$\frac{E(A)}{E(B)} = \frac{E*(A*)E(A) + E*(N*)E(A) + nE*(A*)E(A) + nE*(N*)E(A) + E*(B*)E(A) + nE*(B*)E(A)}{E*(B*)E(B) + E*(N*)E(B) + nE*(B*)E(B) + nE*(N*)E(B) + E*(A*)E(B) + nE*(A*)E(B)} \tag{3}$$

Here also the first term constitutes the number of consistently behaving voters, the second one those from among voters in hiding who eventually turn up for voting and

vote for either party. The third term constitutes the number of voters who did not originally intend to vote; however due to some reason they cast their vote for the party they suggested in anticipation (voters becoming active). The fourth term constitutes the number of voters who did not originally have any intention to vote, or denied having one, nor did they intend to vote, but who eventually do go to vote and vote for either party (voters in hiding becoming active). The fifth term constitutes the group of cross-voters, whereas the sixth one those who changed not only their intention to vote, but also their intention to participate (cross-voters becoming active).

We can eliminate the question regarding the intention to vote in (3). (The decision on participation in voting is logically independent of the answer given to the question about voting intention.) And thus (3) can be formulated more simply as follows:

$$\frac{E(A)}{E(B)} = \frac{A * E(A) + N * E(A) + B * E(A)}{B * E(B) + N * E(B) + A * E(B)} \tag{4}$$

It means that the actual support ratio of any two parties at an election depends - from the perspective of estimates and beside the number of the actual voters of a party - on the ratio of the sum of voters in hiding and cross-voters. The other lesson that can be drawn from the equation described in (4) is that if we are informed of actual participation with respect to part (E), actual election results can be derived from the answers referring to the intention to vote of all respondents in the survey, that is they can be calculated without the answers given to questions probing into intentions to participate.

Public opinion pollsters, that is, can accurately predict election results in two ways. They either ask a question regarding the intention to participate or not. Yet in both cases they should somehow become aware of actual participation ratios in the various voter groups from some external source. That is, the issue of whether they ask questions with respect to the intention to vote or not, does not lead in itself to an accurate estimate of actual election results.

Rearranging the equation describing the estimated and actual behavior of voters (2,3), the two possibilities can be formulated as follows (5). Public opinion pollsters are aware of information with respect to the factors (cases) marked with asterisks from the responses given to the two questions in the surveys, whereas they can only be aware of information or estimate other parameters describing voters' real behavior only from external sources.

$$\frac{E * (A*)[E(A) + nE + E(B)]}{E * (B)[E(B) + nE + E(A)]} = \frac{E(A)[A * + N * + B*]}{E(B)[B * + N * + A*]} \tag{5}$$

They ask questions about voting intentions according to what is mentioned on the left side of the equation *(E*)*. What they should know precisely if they proceed like this is the actual number of voters who really choose *A* or *B* party from among voters of *A* or *B* party those who definitely promise to participate in the survey ('definitely voting party choosers': *E*(A*)* and *E*(B*)*); the number of voters who eventually do not go to the elections *(nE)*; and the number of voters who, even if they go, vote over to the other party *(E*(B*)E(A)* and *E*(A*)E(B))*.

   Obviously, more accurate estimates can be reached if the ratio of inconsistent voters is as small as possible compared to the number of consistent voters. If the latter constitutes a relatively small proportion compared to consistent voters, a precise estimate can also be reached without public opinion pollsters being aware of the behaviour of non-consistent voters. However, the above is possible only in fortunate situations that are beyond the reach of public opinion pollsters' influence. A stricter and somewhat simpler condition than above can also be formulated if we want to generate a more precise estimate. Let by pair ratios of inconsistently behaving voters favouring *A* or *B* party from *Table 1.3*, describing various behavior types coincide with the ratio of consistently behaving voters choosing *A* and *B* parties (6). In other words, let the by pair effect of these behavior types be neutral:

$$\frac{E*(A*)E(A)}{E*(B*)E(B)} = \frac{E*(B*)nE}{E*(A*)nE} = \frac{E*(B*)E(A)}{E*(A*)E(B)} = \frac{E*(N*)E(A)}{E*(N*)E(B)} = \frac{nE*(A*)E(A)}{nE*(B*)E(B)} = \frac{nE*(N*)E(A)}{nE*(N*)E(B)} = \frac{nE*(B*)E(A)}{nE*(A*)E(B)} \qquad (6)$$