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O. L. Chernozub

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IMPLICIT FACTORS AND VOTING BEHAVIOR INCONSISTENCY: FROM AN ATTITUDE TO BEHAVIOR

Oleg L. CHERNOZUB[1,2] — Cand. Sci. (Soc.), Vice-President on CIS countries; Independent Director — Member of the Board of Directors
E-MAIL: 9166908616@mail.ru
https://orcid.org/0000-0001-5689-8719

[1] Global Development Consortium, Moscow, Russia
[2] HeliSky Inc., Moscow, Russia

Abstract. Several recent elections and referendums were marked by a dramatic failure in pre-election prediction based on large-scale surveys among voters. The focus of the present study is poorly studied limitations on the accuracy of forecasts which are based on the explicit intentions of voters and do not take into consideration implicit (unconscious, latent) factors influencing voting behavior. To identify those factors the author introduces Graphic Association Test of Attitude (GATA) — a simple but powerful tool which enables measurement of implicit factors/intentions and helps to "enrich" traditional forecasting models dealing with explicit factors with a set of implicit effects. How these "upgraded" models work can be illustrated by the inconsistency phenomenon showcasing functionality of the general concept.

The findings of the study proves an assumption stating that implicit factors affecting attitudes and intentions are real phenomena, and inconsistencies in explicit and implicit elements of the voter's attitudes and intentions are typical of many voters. These issues were examined in detail in the previous article (Implicit Factors and Voting Behavior

ИМПЛИЦИТНЫЕ ФАКТОРЫ И НЕСОГЛАСОВАННОСТЬ ЭЛЕКТОРАЛЬНОГО ПОВЕДЕНИЯ: ОТ УСТАНОВКИ К ПОВЕДЕНИЮ

ЧЕРНОЗУБ Олег Леонидович — кандидат социологических наук, вице-президент по странам СНГ, Global Development Consortium, Москва, Россия; независимый директор — член совета директоров, HeliSky Inc., Москва, Россия
E-MAIL: 9166908616@mail.ru
https://orcid.org/0000-0001-5689-8719

Аннотация. Несколько последних выборов и референдумов ознаменовались впечатляющими провалами предвыборных прогнозов, основанных на массовых опросах избирателей. Данное исследование затрагивает малоизученный аспект проблемы — ограничения точности прогнозов, которые строятся только на явных намерениях избирателей и не учитывают имплицитных (неосознаваемых, или скрытых) факторов их поведения. Чтобы выявить эти факторы, автор вводит простой и эффективный инструмент графического ассоциативного теста отношения (ГАТО). Тест позволяет измерить имплицитные факторы установки/намерения и «обогатить» типовые модели прогнозирования, основанные на эксплицитных факторах, дополнительным «потоком» имплицитных эффектов. Как работают эти «обогащенные» модели, можно увидеть на примере феномена «несогласованности», который иллюстрирует функциональность общей концепции.

Выводы исследования подтверждают наше предположение о том, что имплицитные факторы формирования установки и намерений — это реальные

Inconsistency: from Theoretical Concept to Empirical Phenomenon// Monitoring of Public Opinion: Economic and Social Changes, 2020, No. 4). The present article argues that implicit factors, particularly due to the inconsistencies in the voting behavior components, can have a real impact on the voters' behavior. Taking this fact into account can considerably and sustainably improve the forecast accuracy.

Keywords: electoral behavior, prediction of behavior, factors of behavior, structural theory of attitude, explicit attitude, implicit attitude, GATA, IAT, attitude-behavior consistency

феномены электорального поведения, а несогласованность эксплицитных и имплицитных компонент установок/намерений характерна для многих избирателей. Эти вопросы подробно освещены в предыдущей статье (Имплицитные факторы и несогласованность электорального поведения: от теоретической концепции к эмпирическому явлению // Мониторинг общественного мнения: экономические и социальные перемены, 2020, № 4). Здесь мы показываем: имплицитные факторы, в частности через несогласованность компонент установки избирателей, действительно влияют на их поведение. Учет этого факта в электоральном прогнозировании существенно и устойчиво повышает точность прогнозов.

Ключевые слова: электоральное поведение, прогнозирование поведения, факторы поведения, структурная теория установки, согласованность установки, эксплицитное отношение, имплицитное отношение, ГАТО, IAT

1. Introduction

1.1. This contribution within the whole study

The previous article "Implicit Factors and Voting Behaviour Inconsistency: From Theoretical Concept to Empirical Phenomenon" presented the main findings of our studies devoted to the implicit factors[1] of electoral behavior. Many pieces of evidence point to the relatively low accuracy of electoral forecasts of the last decades. We suggested that inaccuracy could probably decrease had the implicit factors of voting been taken into consideration. We postulated that the basic theory of reasoned action/theory of planned behavior (TRA/TPB) is insufficient to draw a realistic model of electoral behavior and proposed to enrich the scheme of explicit behavioral factors with the stream of implicit ones. Therefore, the first article presented the theoretical background for the whole study and summarized the proof that implicit factors of voting are an empirical phenomenon. This contribution is devoted to the core topic of our

[1] Explicit attitudes are attitudes that are at the conscious level, are deliberately formed, and are accessible to self-report. On the other hand, implicit attitudes are attitudes that are at the unconscious level, are involuntarily formed, and are typically unknown to us.

investigation — examining the influence of implicit factors on electoral behavior and the accuracy of electoral forecasts. This corresponds to the last tasks and the last hypothesis of the whole study.

1.2. General goal, tasks, and hypotheses

The main general goal of the study is to prove that implicit factors affect voting behavior and incorporating them into the forecasting models improves the accuracy of electoral predictions. The tasks of the research were set as follows:

1. To detect the implicit attitudes/intentions to vote based on the empirical data from mass polls and to test whether these implicit factors are not artifacts of the measurement procedure but are logically generated by the "set of beliefs" as their supposed driver;
2. To identify the voters with inconsistent intentions;
3. To understand whether their characteristics are a significant factor of electoral behavior;
4. To evaluate whether considering inconsistent intentions improves electoral forecasting accuracy.

Corresponding to these tasks, we put forward three general hypotheses to test within the whole study.

$H_0$1: There is no specific (having an independent origin and specific effects) "implicit" attitude towards candidates. In particular: $H_0$1.1 Explicit and implicit attitudes always are the same towards every single candidate, and/or $H_0$1.2 An implicit attitude always has the same level and structure of associations with the basic "set of beliefs" as a variable of the explicit attitude.

$H_0$2: There is no phenomenon of "inconsistent intentions" as a specific factor of electoral behavior. In particular: $H_0$2.1 The share of "inconsistent voters" is constant in every candidate's electorate, and/or $H_0$2.2 There are no significant differences between the "consistent", "non-contradictory", and "inconsistent" groups[2] of voters in their behavior when choosing electoral options, and/or $H_0$2.3 The share of "inconsistent voters" does not correlate with the error of explicit intention-based forecast.

$H_0$3: Taking into consideration an implicit attitude/intention does not improve forecast accuracy; the error level is the same for the forecasts based on explicit, implicit, and combined explicit/implicit intentions.

This article is focusing on $H_0$3, trying to reveal the influence of implicit factors on the voting and examine the effect of their incorporation into the electoral forecasting models.

1.3. General variables

The general variables were set as follows.

A set of beliefs (SB) is a variety of variables traditionally used to investigate the drivers of political and electoral preferences. In this study, the author used the typical American National Election Studies (ANES) sets of "approval", "trust", "partisanship", "political interest", etc. along with the special sets of "ideologically biased" declarations. To decrease measurement error, all of these variables used a four-step scale, e. g.:

[2] Description of "Consistency groups" (CGs) see in Section 1.3.

"Totally agree/mainly agree/mainly disagree/totally disagree". The formulation of ANES-based variables had a common double-end form, for example: "Do you mainly approve or disapprove of the activities of President V. Putin at his office"? The formulations for "ideologically biased" declarations are represented in the text. These variables are used as independent in relation to the "Explicit attitude" (EA) and "Implicit attitude" (IA).

Explicit attitude (EA, EAt). According to the expectancy-based model of attitude, EA is measured as respondents' self-reported estimation of the correspondence or non-correspondence of the candidate to their personal interests. Q: "To what degree does the victory of this candidate match your interests"? A: "Totally matches/mainly matches/mainly mismatches/totally mismatches". *EAt* is the same variable but measured using the feeling thermometer technique with an eight-point scale.

Implicit attitude (IA) is measured with a specially invented technique of the Graphic Association Test of Attitude (GATA) [Chernozub, 2020]. It is used as a dependent variable in relation to SB and as a factor variable to construct variables of "Consistency groups" (CGs).

Explicit intention (VI) is measured as the traditional "vote intention" variable. Q: "For whom from this list will you vote, if any"? A: A list of candidates, including "for no one", "will not vote in this election at all".

Implicit intention (II) is assumed to be a form of an "automatically activated" implicit attitude, so it is, in fact, the same variable. It is used as a factor variable to construct variables of "Consistency groups" (CGs).

"Consistency groups" (CGs) are derived from crossing the EA/VI and IA/II and splitting all the respondents into six groups, depending on how they view a single candidate: (1) EA positive and IA positive, (2) EA positive and IA neutral, (3) EA positive and IA negative, (4) EA negative and IA positive, (5) EA negative and IA neutral, (6) EA negative and IA negative.

Actual voting results (VRs). The actual number of voters participating in particular elections and their electoral choices are derived from the official results published by the Central Election Commission of the Russian Federation. It may be operationalized as the counts of votes or the percent of total votes balloted. In the current study, this variable represents the actual behavior on the aggregated level.

1.4. General data

The current research is based on the data obtained during several nation-wide election polls conducted within the 2016—2018 Russian electoral cycle by the Russian Public Opinion Research Center — VCIOM (one of the largest Russian pollsters). All the studies used CAPI, a multistage sampling of households, with a randomization procedure within households.

Study 1. A nation-wide panel-based poll conducted during the 2016 parliamentary election ($N = 2304$). The sample standard error is 2.25 %. The sample represents the country's electorate. Fieldwork was held in August — September and ended a week before the voting day.

Study 2. Governor elections in one of the regions held in 2018 ($N = 1604$). The sample represents the region's electorate. The sample standard error is 3.25 %. Fieldwork was held on September 3—7 and ended two days before the voting day.

Study 3. Inter-election survey for the 2018 presidential elections ($N = 1606$). The sample standard error is 3.4%. The sample represents the country's electorate. Fieldwork was held in March 2017, a year before the voting day.

Study 4. A nation-wide poll during the 2018 presidential elections ($N = 1629$). The sample represents the country's electorate. The sample standard error is 3.4%. Fieldwork was held on March 10—11, a week before the voting day.

Study 5. A set of four separate polls at the governors' elections in four regions of Russia in 2017 ($N = 600$—606 in the studies, 2407 in total). The samples represent the electorate of each region. The sample standard error is up to 4.0%. Fieldwork was held in September 2017 and ended two days before the voting day.

Based on the raw data of these surveys, the author selected as observations for further analysis single candidates, persons or parties, that acquired an electoral result of no less than 5%. This decision was made because of the anticipated insufficiency of the smaller subsamples. For the selected observations, the standard error of the 5% subsample is no more than 1.1%.

Due to the specifications of the questionnaire design, the data from both presidential election surveys are usable for assessing the structure of intentions and "inconsistent intentions" for V. Putin's electorate, but not for other candidates'.

Therefore, for the analysis of "inconsistent intentions", the author uses nine cases as follows (Table 1.4.1). In the regional elections of 2018, the incumbents were the United Russia members, and the pretenders were representatives of the other main national parties. Further, they will be referred to by their party affiliation.

Table 1.4.1. ***Availability of data on inconsistency effects across the studies, number of cases***

Candidate/Party	Study 1	Study 2	Study 3	Study 4
United Russia	*	*	NA	NA
Communist Party of the Russian Federation (CPRF)	*	*	DF	DF
Liberal-Democratic Party of Russia (LDPR)	*	*	DF*	DF
Fair Russia	*	*	NA	NA
V. Putin	NA	NA	*	*
Total	4	3	1	1

* DF — data format incomparable to the main bulk of data.

For the analysis of the effect of inconsistent attitudes and intentions on the forecast accuracy, 10 cases are available (Table 1.4.2).

Study 5 incorporates a comparison of implicit attitude data as per the methodology of the Graphic Associative Test of Attitude vs. explicit attitude data as per the "feeling thermometer" technique. These data have been used exclusively to prove the orthogonality of measurement of explicit and implicit attitudes and preliminarily assess the scale of their mismatch.

Table 1.4.2. ***Availability of data on the effect of inconsistency on the prediction accuracy, number of cases***

Candidate/Party	Study 1	Study 2	Study 3	Study 4
United Russia	*	DF*	NA	NA
Communist Party of the Russian Federation (CPRF)	*	DF	*	*
Liberal-Democratic Party of Russia (LDPR)	*	DF	*	*
Fair Russia	*	DF	NA	NA
V. Putin	NA	DF	*	*
Total	4	0	3	3

* DF — data format incomparable to the main bulk of data.

1.5. Interim conclusions of the first article

Aggregating all the data presented in the article, one has to accept several conclusions.

1. Implicit components of an attitude are an empirical phenomenon. It has been reliably detected at both levels of attitude and intentions.

2. Implicit and explicit components most probably are of separate origin and definitely are affected by the distinctive sets of factors.

3. Implicit and explicit drivers exist simultaneously, and controversial attitudes/intentions status within the mind of a single person is quite a common arrangement.

Theoretically, these findings support the initial assumption of the independent nature of implicit and explicit factors of electoral attitudes, intentions, and probably behavior. These components may match or mismatch each other. Thus, one has to adopt the "enriched" model of the TRA/TBP. As soon as we do that, the question follows: does the implicit "stream" — in particular via the inconsistent status of explicit/implicit factors — affect behavior?

2. From the inconsistency of intentions to the inconsistency of behavior

Typically to electoral polls, in all the conducted studies, there was no opportunity to check whether the respondents did vote according to their declared intentions. However, one can consider some of the respondents' answers not only as pieces of data but also as records of "action", providing information not of what a respondent thinks, but how he or she really behaves when choosing the answer.

2.1. Inconsistency is revealing itself in switching behavior

Study 1 was organized as a longitudinal survey where the 1st wave was held two months before the voting day, the 2nd wave — one month, the 3rd — two weeks, and the 4th wave — one week before the voting day. The GATA test was incorporated in wave 4. If one presumes that the implicit attitude is extremely stable [Rosenberg, 1956, 1960], one can suppose that the data from the GATA reliably covers the "implicit status"

of respondents for the 4th and 3rd waves and quite probably even for the 2nd and 1st ones. Based on this assumption, one can construct switch tables for each of the four leading candidates (UR 16, CP16, LD 16, and FR 16) for waves 3 and 4. In all the respective tables, the data in the columns "Positive" refer to the consistency group "1. Explicit positive, Implicit positive", the columns "Neutral" — to the group "2. Explicit positive, Implicit neutral", and "Negative" — to "3. Explicit positive, Implicit negative".

To present the switching process in a typical way "from past to present", the author recounted all the findings as a percent of the initial volume of the respective consistency group and added some basic descriptive statistics.

Table 2.1.1. ***The outflow of the vote intention for the leading candidates, depending on the implicit attitude to the respective party of explicit (VI) preference, % of the volume of the initial group***

Implicit attitude to the party of VI preference	Positive	Neutral	Negative	Total
UR 16	10.1%	20.2%	25.0%	14.3%
LD 16	17.7%	24.7%	36.6%	21.6%
CP16	18.8%	26.3%	56.3%	25.6%
FR 16	33.6%	50.0%	52.0%	40.1%
Mean	20.1%	30.3%	42.5%	25.4%
St. deviation	9.9%	13.4%	14.4%	10.9%
Spread	23.6%	29.8%	31.3%	25.8%

Table 2.1.2. ***The inflow of the vote intention for the leading candidates, depending on the implicit attitude to the respective party of explicit (VI) preference, % of the volume of the initial group***

Implicit attitude to the party of VI preference	Positive	Neutral	Negative	Total
UR 16	16.5%	30.5%	41.3%	22.8%
LD 16	17.7%	19.2%	29.3%	19.5%
CP16	17.4%	26.3%	18.8%	19.7%
FR 16	26.2%	57.5%	48.0%	36.6%
Mean	19.5%	33.4%	34.3%	24.7%
St. deviation	4.5%	16.7%	13.0%	8.1%
Spread	9.7%	38.3%	29.3%	17.2%

Table 2.1.3. ***Turnover of the vote intention for the leading candidates, depending on the implicit attitude to the respective party of explicit (VI) preference, % of the volume of the initial group***

Turnover to initial VI	Positive	Neutral	Negative	Total
UR 16	26.6%	50.7%	66.3%	37.1%
LD 16	35.5%	43.8%	65.9%	41.0%
CP16	36.2%	52.6%	75.0%	45.4%
FR 16	59.8%	107.5%	100.0%	76.7%
Mean	39.5%	63.7%	76.8%	50.1%
St. deviation	14.2%	29.5%	16.0%	18.1%
Spread	33.3%	63.7%	34.1%	–8.3%

According to Tables 2.1.1—2.1.3, inconsistent intentions groups lose from 25.0% (UR 16) to 56.3% (CP16) of their initial volume because of switching. Simultaneously, the switching inflow of this group is from 18.8% (CP16) to 48.0% (FR 16) leading to the turnover rates from 65.9% (LD 16) to 100.0% (FR 16). In contrast to both "consistent" and "non-contradictory" groups, the inconsistent group "3. Explicit positive, Implicit negative" demonstrates the highest values of average outflow (42.5% against 20.1% and 30.3%), inflow (34.3% against 19.5% and 33.4%) and turnover (76.8% against 39.5% and 63.7%). The fully consistent group "1. Explicit positive, Implicit positive" has these indicators at a minimum level, while the "non-contradictory" group "2. Explicit positive, Implicit neutral" takes an intermediate position.

For the three parties other than UR 16, subsamples are relatively small; to reduce random errors, the respective numbers were summed. The results are as follows (Table 2.1.4).

Table 2.1.4. ***Switching of vote intention for the combined electorate of the four leading candidates, depending on the implicit attitude to the respective party by explicit preference (VI), summarized counts***

Implicit attitude to the party of VI preference	Positive	Neutral	Negative	Total
3rd wave	992	373	190	1555
Outflow	155	94	69	318
Inflow	178	114	68	360
4th wave	1015	393	189	1597
Total	1015	393	189	1597

In total, 1597 respondents belonging to the electorate of one of the leading parties took part in both waves. The universe of all the voters was represented by 1939 respondents. The data recounted against the universe are provided in Table 2.1.5.

Table 2.1.5. ***Switching of vote intention for the combined electorate of the four leading candidates, depending on the implicit attitude to the respective party of explicit (VI) preference, % of the country's electorate***

Implicit attitude to the party of VI preference	Positive	Neutral	Negative	Total
3rd wave	51.2%	19.2%	9.8%	80.2%
Outflow	8.0%	4.8%	3.6%	16.4%
Inflow	9.2%	5.9%	3.5%	18.6%
4th wave	52.3%	20.3%	9.7%	82.4%
Turnover, % to the initial value	33.6%	55.8%	72.1%	43.6%

The data presented in Tables 2.1.4., 2.1.5 show that the combined group of inconsistent intentions "3. Explicit positive, Implicit negative", consisting of about 10% of the total number of voters, demonstrates the maximum level of switching activity with a turnover of about 72% of the initial value, compared to 33.6% in the group of consistent intentions and 55.8% in the group of non-contradictory intentions. Therefore, $H_0$2.2 "There are no statistically significant differences between "consistent", "non-contradictory" and "inconsistent" groups of voters in their behavior when choosing electoral options" is not supported by the data.

Considering the answers to the VI questions as a true behavioral act of a respondent's choice, one concludes that this behavior is the most stable and predictable for the group of consistent intentions, and the most unstable and unpredictable for the group of inconsistent intentions. Does this conclusion, which is valid for the behavior during the opinion poll, get support from the data on the electoral behavior itself?

2.2. Inconsistency affects voting behavior

As supposed in $H_0$2.3, the share of "inconsistent voters" does not correlate with the error of explicit intention-based forecast. To test it, the author combined the empirics from all the elections where there are data on declarative intentions (VI) split into consistency groups as per Section 1.3. In total, there were 10 cases from Studies 1, 2, and 4. The values of forecast[3] errors were weighted against the errors' mean for each respective election. Then the weighted level of error was considered as a dependent variable in the regression models where independent variables were alternately the groups of consistent, non-contradictory, and inconsistent intentions of the respective candidates' supporters.

The acquired data are presented in Figures 2.2.1—2.2.3.

[3] Forecasts were calculated in a uniform way as a direct extrapolation of the single VI indicator, regardless of the forecast models actually used in these studies.

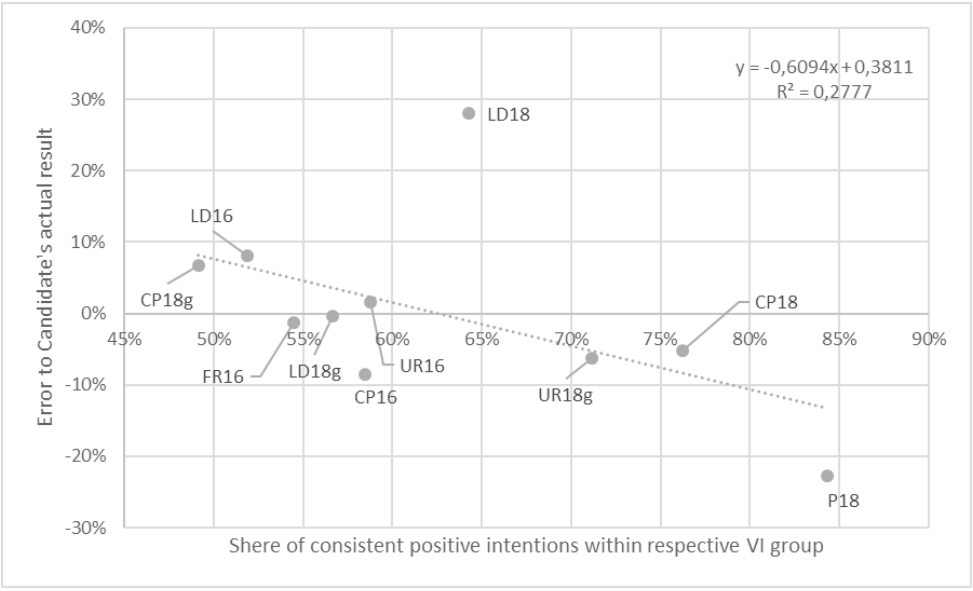

Figure 2.2.1. Regression model for the group of consistent intentions as an independent variable

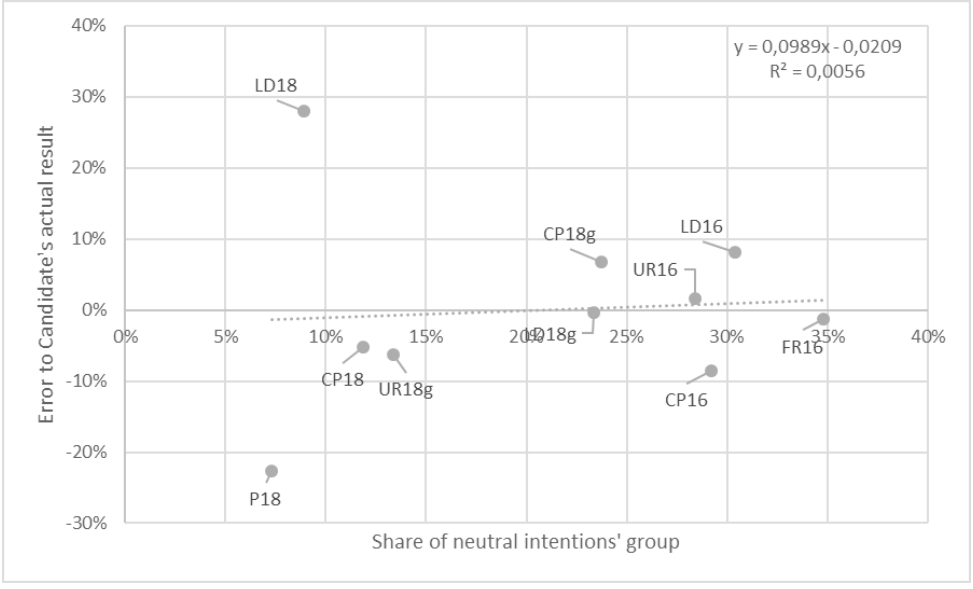

Figure 2.2.2. Regression model for the group of non-contradictory intentions as an independent variable

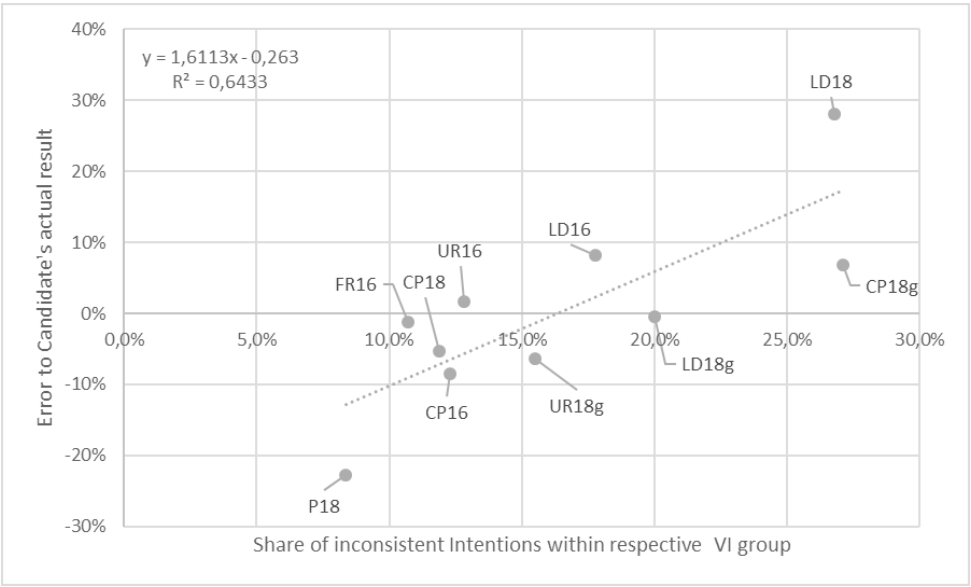

Figure 2.2.3. Regression model for the group of inconsistent intentions as an independent variable

As the data show, the composition of the electorate's consistency is indeed associated with the predictability of their behavior. An increase in the share of the group of consistency intentions leads to a decrease in the forecast error which means that representatives of this group relatively more often act as planned. In contrast, the presence of the group of inconsistent intentions disrupts the prediction accuracy: the more its share is, the heavier the forecast error is. Omitting the outliers of LD 18 seems to support these conclusions. The group of non-contradictory intentions does not affect the prediction accuracy, taking the middle position between the other groups. As a result, $H_0$2.3 "The share of "inconsistent voters" does not correlate with the error of explicit intention-based forecast" has to be rejected.

3. Inconsistency model application: electoral forecasting

3.1. Likely voter concept and the method of experiment

As the American Association for Public Opinion Research has aptly stressed, "…one problem election pollsters face is that not all respondents who tell them they plan to vote will do so. The actual turnout (known only after the election) is generally lower than respondents' self-reports of voting intentions in pre-election polls. So the pollster's challenge is to try to identify those who will really vote on the Election Day and which ones will stay home"[4]. To address this problem, a concept of likely voters was developed by the Gallup Organization[5] [Perry, 1960, 1962, 1973, 1979] and now is commonly adopted.

[4] Likely Voters. *American Association for Public Opinion Research*. URL: https://www.aapor.org/Education-Resources/Election-Polling-Resources/Likely-Voters.aspx (accessed: 16.10.2020).

[5] Blumenthal M. (2004) Likely Voters IV — The Gallup Model. *Mystery Pollster*. October 27th. URL: http://www.mysterypollster.com/main/2004/10/likely_voters_i_1.html (accessed: 16.10.2020); Newport F. (2008) Who are Likely Voters and When Do They Matter. *Gallup*. July 28th. URL: http://www.gallup.com/poll/109135/who-likely-voters-when-they-matte.aspx (accessed: 16.10.2020).

The basic idea of this model is to filter out from the poll's sample those who most probably will not vote. If the pollster manages to do it correctly, the intentions of the excluded respondents will not affect the forecast, and the subsample of the "true voters", corrected in this way, will better represent the distribution of the voting choices at the actual election. This model assumes that the declaration of VI reflects the real intentions of the respondent and if the general sample is corrected, almost the only source of error is "late swing" factors.

Thus, to test the applicability of the model of inconsistent intentions in the forecasting practice, one can construct several typical "likely voter" models. All these models are based on the idea to filter out specific groups of respondents who could be considered as "unlikely" voters. The first set of models is not affected by any of the implicit/inconsistency factors and is used as the "control". Then, each of these basic models is to be supplemented with an additional filter that excluded the groups of "inconsistent intentions" regarding the respective candidate. Supposedly, the elimination of all the groups of voters driven by inconsistent intentions will lead to unequal changes of the predicted results for the candidates but the total quality of the forecast will increase. This second set of models is considered "experimental".

Finally, one should set up an average weighted error of the forecast as a general indicator of the quality of the forecasting model. The weighted error is calculated as a difference between the forecasted and the actual results divided by the actual result of the respective candidate. Thus, all the error values are comparable for all the candidates and across all the elections.

3.2. The forecasting models

To calculate the *voting forecast (VF)* for any given election and estimate the effect of introducing the implicit/inconsistency factors on prediction accuracy, several alternative models have been developed.

The set of control models:

1. Vote intention (VI). The share of respondents choosing a specific candidate or a party in response to a direct VI question is considered as a prediction of this candidate's future share of votes.

2. Vote intention, confirmed (VIc). This model is almost the same as VI but filters out voters who gave a negative answer to the auxiliary question "Is your intention to vote for this candidate unchangeable or it could be altered? (Y — unchangeable, N — could be altered)".

3. Likelihood to vote — vote intention (LVVI). This is the most common approach among the basic forecast models. It regards vote intentions only of those who declared that they will vote answering the question "Would you vote in the coming elections of…, or no?" Thus, respondents who did not declare their plans to vote are filtered out.

The set of experimental models:

Vote intention (VI), Vote intention, confirmed (VIc), Likelihood to vote — vote intention (LVVI). Experimental models were set up as the control ones with the only additional filter: the group of inconsistent voters was excluded from the subsample of "likely voters" under the assumption that these voters, affected by contradictory intentions, have relatively fewer motives to invest their time and efforts in voting actions.

The reference model:

GATA. This is a direct projection of the positive implicit attitude/intention on the anticipated results of the voting. In fact, it cannot be a forecast itself since an individual may have a positive implicit attitude/intention to several candidates. However, the author provides here the corresponding data to demonstrate the synergetic effect of the combination of both explicit and implicit factors in the same model.

3.3. Comparison results

This section considers the aggregated results to compare the effectiveness of the used models.

Tables 3.3.1—3.3.3 summarize the data comparison. Every table is divided into three sections. The first one represents the values of VF according to all the models and the corresponding VR. The second section contains the natural values of errors, counted by subtracting VR from VF, of the corresponding model for a single candidate. The third section represents weighted errors counted by dividing the error of every model by the corresponding VR. Finally, the bottom line covers the values of average weighted errors' modules.

Table 3.3.1. ***Forecasted values, natural and weighted errors by all the models, State Duma elections, 2016***

	GATA	Control models			Experimental models			VR
		VI	VIc	LVVI	VI	VIc	LVVI	
Basic values								
FR16	35.2%	8.3%	7.7%	9.7%	7.1%	5.5%	8.5%	6.2%
LD16	30.6%	16.3%	15.4%	14.8%	14.4%	15.4%	12.6%	13.1%
CP16	29.0%	11.1%	16.7%	15.5%	10.1%	13.3%	14.2%	13.3%
UR16	43.7%	39.6%	54.1%	46.1%	35.3%	48.5%	40.8%	54.2%
Natural error								
FR16	35.2%	2.1%	1.5%	3.5%	0.9%	−0.7%	2.3%	0.0%
LD16	30.6%	3.2%	2.3%	1.7%	1.3%	2.3%	−0.5%	0.0%
CP16	29.0%	−2.2%	3.4%	2.2%	−3.2%	0.0%	0.9%	0.0%
UR16	43.7%	−14.6%	−0.1%	−8.1%	−18.9%	−5.7%	−13.4%	0.0%
Weighted error								
FR16	566.0%	33.4%	23.8%	55.9%	14.1%	−11.6%	36.7%	0.0%
LD16	232.9%	24.0%	17.2%	12.6%	9.6%	17.2%	−4.1%	0.0%
CP16	217.7%	−16.8%	25.2%	16.2%	−24.3%	−0.3%	6.4%	0.0%
UR16	80.5%	−26.9%	−0.2%	−14.9%	−34.9%	−10.5%	−24.7%	0.0%
Average module of error to the candidate's result	234.0%	25.3%	16.6%	24.9%	20.7%	9.9%	18.0%	0.0%

Table 3.3.2. ***Forecasted values, natural and weighted errors by all the models, presidential elections, intermediate study, 2017***

	GATA	Control models			Experimental models			VR
		VI	VIc	LVVI	VI	VIc	LVVI	
Basic values								
LD17	39.9%	10%	7.7%	9.1%	8.5%	6.7%	9.2%	5.7%
CP17	32.0%	5%	3.0%	4.9%	4.7%	4.6%	5.1%	11.1%
P17	62.4%	74%	86.0%	76.5%	72.3%	76.4%	79.6%	76.6%
Natural error								
LD17	34.2%	4.2%	2.0%	3.5%	2.8%	1.0%	3.5%	0.0%
CP17	20.9%	–6.2%	–8.1%	–6.2%	–6.4%	–6.5%	–6.0%	0.0%
P17	–14.2%	–2.4%	9.4%	–0.1%	–4.3%	–0.3%	3.0%	0.0%
Weighted error								
LD17	604.5%	74.4%	35.2%	61.4%	50.3%	18.4%	62.4%	0.0%
CP17	188.8%	–55.9%	–72.9%	–55.9%	–57.9%	–58.3%	–54.1%	0.0%
P17	–18.6%	–3.2%	12.3%	–0.1%	–5.7%	–0.3%	3.9%	0.0%
Average module of error to the candidate's result	270.6%	44.5%	40.1%	39.1%	38.0%	25.7%	40.1%	0.0%

Table 3.3.3. ***Forecasted values, natural and weighted errors by all the models, presidential elections, 2018***

	GATA	Control models			Experimental models			VR
		VI	VIc	LVVI	VI	VIc	LVVI	
Basic values								
LD18	39.9%	9%	7.1%	5.7%	7.8%	7.1%	5.6%	5.7%
CP18	32.0%	9%	6.7%	8.5%	8.7%	7.0%	8.7%	11.1%
P18	62.4%	78%	85.0%	80.1%	80.6%	88.3%	78.3%	76.6%
Natural error								
LD18	39.9%	3.0%	1.4%	0.1%	2.1%	1.5%	–0.1%	0.0%
CP18	32.0%	–2.2%	–4.4%	–2.5%	–2.3%	–4.1%	–2.4%	0.0%
P18	62.4%	1.5%	8.4%	3.5%	4.0%	11.7%	1.7%	0.0%

	GATA	Control models			Experimental models			VR
		VI	VIc	LVVI	VI	VIc	LVVI	
Weighted error								
LD18	704.5%	52.7%	25.2%	1.1%	37.3%	26.2%	–1.7%	0.0%
CP18	288.8%	–19.5%	–39.7%	–23.0%	–21.2%	–36.8%	–21.5%	0.0%
P18	81.4%	2.0%	11.0%	4.6%	5.2%	15.3%	2.2%	0.0%
Average module of error to the candidate's result	304.0%	24.7%	25.3%	9.6%	21.3%	26.1%	8.5%	0.0%

As one can see from the presented data, in most cases the experimental models provide comparable or superior accuracy of prediction. There is only a remarkable exception of UR16 where the underestimation of VR is provided by both sets of models, but the error of experimental models is greater. Most probably, this effect could be attributed to the peculiarities of the electoral process in Russia where some regions demonstrate both the turnout and voting for incumbents well above the country average[6].

Therefore, the author structured 30 cases of control and 30 respective cases for the experimental models (10 candidates multiplied by 3 models for each set). To give a general picture, all of these are aggregated in Table 3.3.4. The first and second sections of the table include the average modules of weighted errors for all the candidates within the corresponding set of models. The third part and the bottom line provide the values of the average improvement of forecasts by experimental models compared to the respective control ones.

Table 3.3.4. ***Experimental and control models: prediction improvement tendency***

	VI	VIc	LVVI	On average
Control models, average weighted error				
State Duma — 2016	25.3%	16.6%	24.9%	22.3%
President — 2017	44.5%	40.1%	39.1%	41.2%
President — 2018	24.7%	25.3%	9.6%	19.9%
Experimental models, average weighted error				
State Duma — 2016	20.7%	9.9%	18.0%	16.2%
President — 2017	38.0%	25.7%	40.1%	34.6%
President — 2018	21.3%	26.1%	8.5%	18.6%

[6] In fact, the author accounted for these peculiarities in the forecast models, but here quite "mechanistic" VF results are left untouched in order to secure a crystal-clear comparison.

	VI	VIc	LVVI	On average
Improvement, points of average weighted error				
State Duma — 2016	4.6%	6.7%	6.9%	6.1%
President — 2017	6.5%	14.5%	–1.0%	6.6%
President — 2018	3.5%	–0.8%	1.1%	1.3%
On average, points of average weighted error	4.8%	6.8%	2.3%	4.7%

As the data demonstrate, in terms of the weighted error module, the overall average incremental accuracy effect is about 4.7%. This effect proved to be quite stable: at the level of average values, it has been detected for each of the three models (VI — 4.8%, VIc — 6.8%, LVVI — 2.3%) and each of the three forecasting attempts (2016—6.1%, 2017—6.6%, 2018—1.3%). Out of 9 aggregated results (Table 3.3.4, section "Improvement"), only 2 cases show a small negative effect, while in 6 other cases there is a strong positive effect (range 3.5%—14.5%), and in 1 case — a small positive one (1.1%).

Therefore, $H_0$3 "Taking implicit attitude/intention into consideration does not improve forecast accuracy; error level is the same for the forecasts based on explicit, implicit, and combined explicit/implicit intentions" should be rejected.

4. Conclusions and general discussion

Our data, being considered within the frames of the field of voting behavior, lead one to a set of meaningful conclusions:

1. The Implicit components of the voters' attitudes are an empirical, reliably detectable phenomenon.

2. Implicit and explicit components of the attitude most probably are of separate origin and definitely are affected by the distinctive domains of the factors.

3. Implicit and explicit drivers exist simultaneously, and controversial attitudes/intentions status within the mind of a single person is quite a common arrangement.

4. The presence of the implicit factors affects behavior.

5. Incorporation of the implicit factors into the forecasting models results in considerable improvement of their accuracy. Theoretically, these findings support the initial assumption that implicit factors are present in voting behavior. Next, one can accept the relatively independent nature of implicit and explicit factors of electoral attitudes, intentions, and probably behavior. These components may match or mismatch each other. At least for the inconsistent status of the attitude, it was proved that these implicit factors affect electoral behavior. The nature of this influence is still unclear, but the phenomenon is empirically detectable. All of these facts, being applied to voting, support our initial assumption that the electoral behavior does not precisely fit the requirements of the theory of reasoned action/theory of planned behavior, being not totally "reasoned" and "planned". If so, one has to adopt the "enriched" model of the TRA/TBP.

Needless to say, these findings raise the theoretical problems of (a) the origin and nature of implicit factors and (b) the mechanics of their interaction with the explicit drivers. However, these are topics for further studies.

Practically, the presented data and the conclusions drawn from them lead to the understanding of the importance of "inconsistent" voters. These groups are unreliable and being unidentified, they distort the perception of the electoral landscape which could lead forecasts, political planning, and the electoral strategy into a deep impasse. If one does not know how many "inconsistent" voters are among his or her "declarative" supporters and who are they, he/she tries to apply makeup in front of a false mirror: in this case, one shouldn't be surprised by the people's reaction when one turns to the public. Thus, an obvious application of the inconsistency model to political planning is to separate the "inconsistent" group from the core part of supporters in order to understand their differences in terms of values, beliefs, most appealing incentives, etc.

Last but not least, the presented findings make it necessary to focus on (4) EA negative & IA positive, and (5) EA negative & IA neutral groups as a reservoir of supporters. If there are no barriers for the support at the implicit level, why cannot one secure their votes? It is a meaningful question, a practical and effective one.

For further studies, it looks extremely promising to test inconsistency effects at the individual level. Maybe not directly on the data of the electoral behavior, but using any case where explicit/implicit factors could be reliably identified along with the fact of a person's actual behavior. An outstanding study by Rogers and Aida [Rogers, Aida, 2012] provides an inspiring example of such an approach.

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