

Integrated Models of the Protest Behavior Prediction in 27 Post-Socialist Countries

By Olga Lavrinenko

PhD candidate at Polish Academy of Sciences

Abstract

The aim of this research is to develop approach to the study of protest behavior, which will integrate socio-psychological and contextual predictors. Despite proliferation of the theories and methodologies focused on the protest behavior, there are substantial gaps in the literature on those integrated models of protest behavior, which could be both empirically testable and theoretically consistent. Thus the gaps in the literature on the integrated models justify essentiality of the elaboration of these models in the present research.

The models, elaborated in the framework of integrated approach, are both theoretically accurate and empirically testable. Overall, eleven hypotheses are tested on the sample of 41362 respondents nested in 27 Post-Socialist countries. As a method for empirical testing of the hypotheses Two-Level Logistic Regressions were run. This method allows introduction of both micro (efficacy, grievances, distributive and procedural justice attitudes, socio-economic status, membership in organizations) and macro-level (economic development, income inequalities, political opportunity structure) predictors of the protest behavior to the models. Protest behavior defined as intentions and past behavior of signing petitions, joining boycotts, demonstrations and strikes represents binominal variables in every case.

Steps in testing include running of the two-level logistic regression model with random intercept (random variation of the micro-level predictors across countries) (H1 – H8) as well as running the models with between-level interactions terms (H9 – H11). In general, hypotheses were verified for the most types of intentions and past protest behavior. It indicates that the proposed analytical tools fitted the data meeting the demand of the internal validity. In addition, the research results provided opportunities for generalizability (i.e. external validity demand), since the models were tested also on the non-Western samples.

Key Question: Focus your topic on one central research question or hypothesis.

What is your question? Why is it worth answering?

Micro-macro problem appears in every study of social reality. Especially, it becomes urgent, when issue concerns protest behavior, since here the risks to overestimate contextual economic, political and cultural characteristics and underestimate individual socio-psychological characteristics are doubled. Structural inequalities, level of economic development and peculiarities of the political regimes are often considered as main determinants of the protest behavior, while individual grievances, efficacy, socio-economic status and membership in organizations are neglected as predictors of the protest behavior. Consequently, there is a need for elaboration of the integrated models, which will integrate macro-level contextual characteristics with micro-level socio-psychological characteristics.

Besides internal validity focus of the research, there is also external validity issue concerning inclusion to the research the data from the Post-Soviet countries due to the fact that these countries as the rule neglected in the empirical studies of protest behavior. Earlier, protest behavior models

were widely tested on the European Social Survey (ESS) data, which contain the data from five Post-Soviet countries – Latvia, Estonia, Lithuania, Ukraine, Russia. Certainly, besides of Post-Soviet countries, ESS data contain also samples of the former Post-Socialist or “Eastern Block” (Warsaw Pact) countries, but protest behavior models were already tested by many scholars on the data from these countries, while Post-Soviet samples (especially non-European ones) remain understudied. Therefore, for the present research World Values Survey (WVS) data from those countries were added, which were previously neglected in the protest behavior models.

- (1) **Specific Contribution:** what knowledge exists concerning this question and to what literature will you contribute? Outlining where the existing evidence is deficient or inconclusive, so that your research fills a gap in the literature.

Despite protest behavior was widely tested in the empirically-oriented sociological papers, which proposed multi-level models for testing of the power of macro and micro-level predictors of collective action (Dubrow et al, 2008; Dalton et al, 2009; Concoran et al, 2015; Braun and Hutter, 2016; Słomczyński et al, 2016), there is a gap in the elaboration of the consistent integrated models. Often sociological models include both micro and macro level predictors of collective action, but sometimes micro-level predictors, chosen for including to the model, do not reflect existing socio-psychological theories. In some cases, only one purely socio-psychological predictor is chosen, while others are neglected. Again, it does not imply that these models are weak. They are very strongly elaborated, but they are focused on different approaches to the building of the multi-level models and they introduce different predictors of protest behavior. Consequently, it implies that approach to the integrated modelling elaborated in the present research is innovative, because such combination of macro and micro-level predictors was added to the models, which previously was not considered in the studies.

In addition, argument for the external validity of the research design is that the models are tested on the samples of Post-Soviet countries. Inclusion those samples, which rarely appear in the research papers, increases opportunities for generalizability of the research results. Since previously most of the hypotheses were tested on the Western samples of European Social Survey, non-Western samples will contribute to the verification of the theories or, in contrast, will falsify them.

- (2) **Theoretical Framework:** Briefly describe your theoretical framework and its key concepts.

Contextual approach to the protest behavior is defined by the set of “political opportunity” and “resource mobilization” theories (i.e. Gamson, 1968; Eisinger, 1973; Tilly, 1978; McAdam, 1982; McAdam, McCarthy, Zald, 1976; Kitschelt, 1986; Della Porta, 1992, 2009; Della Porta and Fillieule, 2004; Della Porta and Diani, 2007; Jasper 1997, 1998; Szabó 1996; Gamson and Mayer, 1996; Meyer and Tarrow, 1998; Ekiert and Kubik 1998; Greskovits 1998; Goodwin and Jasper, 1999; Kriesi, 2004; Tarrow, 2013). These theories consider contextual factors as forming of the protest collectivities. Often the focus in these works is made on social movements’ formation in the political and economic settings of the particular countries. The advantage of these research papers is providing of the strong theoretical arguments about conditions under which protest mobilization is probable.

Nevertheless, the weak side of these research papers is neglecting of the individual in the societal settings. The power of social movements is absolutized, movements are considered as unified entities, while focus on individuals' motives, which driven them to join the collective action, is not made. Meanwhile, findings of the present research indicate that, for example, lower level of economic development do not necessary lead to high degree of protest mobilization. In contrast, the degree of participation in protests is higher in the countries with higher level of economic inequalities.

Socio-psychological theories consider micro-level characteristics as main predictors of protest behavior. Micro-level predictors were derived from: relative deprivation theory (Stouffer et al, 1949; Caplan and Paige, 1968; Gurin and Epps, 1975; Pettigrew, 1972; Runciman, 1966; Taylor and Moghaddam, 1994; Walker & Smith, 2002); distributive justice (equity) theory (Homans, 1961; Walster, Berscheid and Walster, 1973; Walster and Walster, 1975; Walster, Walster and Berscheid, 1978; Mills and Powell, 1986); procedural justice theory (Folger, 1977; Kanfer, Sawyer, Earley, & Lind, 1987; Lind, Kurtz, Musante, Walker, & Thibaut, 1980; Lind, Lissak, & Conlon, 1983; Tyler, 1987; Tyler, Rasinski, & Spodick, 1985); social (collective) identity theory (Cheek, Underwood, & Cutler, 1985; Cheek, 1989; Ellemers, 1993; Hogg and Abrams, 1988; Simon and Klandermans, 2000; Crocker and Luhtanen, 1992; Drury & Reicher, 1999, 2000, 2005; Reicher, 1996, 2001; Kelly & Breinlinger, 1995; Simon et al., 1998; Stürmer & Simon, 2004); efficacy theory (Drury & Reicher, 2005; Reicher, 1996, 2001; Mummendey et al, 1999; Hornsey et al., 2006; Kelly & Breinlinger, 1996; Drury & Reicher, 2005; Cocking & Drury, 2004; Mummendey et al, 1999).

Despite providing of the strong predicting power, micro-level models contain some deficiencies. They presume that macro-level injustices are present in every country, even most democratic one. Consequently, according to these theories, macro-level characteristics could be neglected in the construction of the models predicting protest behavior. In fact, socio-psychological models treat efficacy, procedural justice and distributive justice as context reflection at the individual level. Certainly, it does not imply that these models are weak, since scholars build their models according to the research problems of interest and, consequently, not all the research problems require multi-level modelling. The value of the socio-psychological models is providing elaborated micro-level predictors of the protest behavior, which could be supplemented by the macro-level predictors in the integrated models.

(3) Core Variables and Hypotheses: Describe the core variables of your research: what is the major dependent variable and what are plausible independent variables? Specify a number of alternative hypotheses/mechanisms.

Research models contain predictors of macro and micro-level. Consequently, the data could be ordered into two levels: individuals (first level) and countries (second level). Overall, predictors along with their indicators are ordered in the following way:

1) Micro-level predictors: Efficacy (binary variable of internal locus of control); Distributive Justice (variable of pro-equality attitudes); Procedural Justice (variable of political system characteristics' assessment as fair or unfair); Grievances (life satisfaction and satisfaction with government), Socio-Economic Status (income, education and employment); Gender and Age (Control variables); Membership in high (trade unions, political parties), average (church, professional associations, humanitarian or charitable organization and consumer organization) and low politicized (sport or recreational organizations, art, music or educational organizations and self-help group/mutual aid group) organizations;

2) Macro-level (country-level) predictors: level of income inequality (GINI coefficient); level of economic development (GDP per capita PPP); procedural dimension of the political opportunity structure (World Bank's Rule of Law Index); political opportunity structure as type of the political regime (Freedom House Democracy Score), cultural dimension of the political opportunity structure (Economist Intelligence Unit's Political Culture Index).

As for the dependent variable, protest behavior is firstly divided into intentions and past behaviors. Both intentions and behaviors could be divided into low-cost, average-cost and high-cost types of collective action. Low-cost type of collective action includes intention to participate or participation in the boycotting of products and signing of the petitions. Average-cost type consists of intention to participate or participation in the peaceful demonstrations. In its turn, high-cost type presumes intention to participate or participation in the strikes. Thus, dependent variable (protest behavior) consists of the set of the binominal variables (types of protest behavior's intentions and past behavior), which implies that *multi-level logistic regression* should be applied for testing of the models with this variable.

In this way, basing on the existing contextual and socio-psychological approaches to the protest behavior, the following hypotheses could be introduced:

Hypothesis 1: The more economically developed countries are the higher probability of collective action participation is.

Hypothesis 2: The lower level of income inequalities in the countries is the lower probability of collective action participation is.

Hypothesis 3: The more open political opportunity structure is the higher probability of collective action participation is.

Hypothesis 4: The higher political culture is, the higher probability of collective action participation is.

Hypothesis 5: The higher level of efficacy and grievances is, the higher probability of collective action participation is.

Hypothesis 6: The higher level of support towards distributive and procedural justice is, the higher level of collective actions participation is.

Hypothesis 7: Membership in all the types of organizations increases probabilities of collective action participation.

Hypothesis 8: The higher SES is the higher probability of participation in collective action is.

Hypothesis 9: In more egalitarian countries, effects of distributive justice and grievances on collective action participation are stronger.

Hypothesis 10: In countries with higher level of economic development, effects of grievances, social identity, efficacy, distributive and procedural injustice on collective action participation are stronger.

Hypothesis 11: In countries with more open political opportunity structure, effects of grievances, social identity, efficacy, distributive and procedural justice attitudes on collective action participation are stronger.

(4) Analyses and Modelling: Outline the analytical techniques and empirical models you will use. *How will you test your question? How will you know if you are wrong?*

From statistical point of view, *two-level mixed effects logistic regression models* represent the most valuable tools for the prediction of involvement into the protest activities for several reasons. First, they enable to estimate effects of individual and country-level predictors simultaneously. Second,

they enable control for the hierarchical structure of the variables, nesting individuals within countries. Third, in contrast to one-level models, multi-level models estimate standard errors of the coefficients in more accurate way, which prevents interference of the effects, which are not significant. Thus these models explain greater amount of variance and have improved fit as compared with one-level models.

The general multi-level logistic model could be represented by the following equation:

$$(\text{Protest behavior})_{ic} = \log [p_{ic} / (1 - p_{ic})] = \alpha_{0c} + X_{ic}\beta_1 + X_{ic}\beta_2 \dots + X_{ic}\beta_n + Z_c\gamma_1 + Z_c\gamma_2 + \dots + Z_c\gamma_m + u_c + \varepsilon_{ic},$$

Separate equation for regression intercept in this case is:

$$\alpha_{0c} = \beta_{00} + u_{0c},$$

Where p_{ic} is probability of binary outcome for person i in country c and country-level variance σ_{2u} is normalized to equal $\pi^2/3$ (normal distribution assumption); α_{0c} – regression intercept; X_{ic} – individual-level characteristics; Z_c – country-level characteristics; β and γ – individual and country-level observed predictors; u_c – country-level unobserved predictors (and their variance σ_{2u}); ε_{ic} – individual-level unobserved predictors (and their variance $\sigma_{2\varepsilon}$).

Logistic regression is transformed into the odds ratios. The equation for the odds ratios is:

Odds = $p / (1 - p)$ = probability of protest behavior presence / probability of protest behavior absence.

If odds ratios for given independent variables equal 1 or higher than 1, they increase probability of participation in protest behavior. In contrast, if the odds ratios lower than 1, these independent variables decrease probability of participation in protest behavior.

(5) Targeted Data Base: What comparative or longitudinal evidence would be needed to test your question? What dataset will you use?

Since ESS do not contain data from the Post-Soviet countries located on the South Caucasus and Central Asia, data from World Values Survey (WVS) round six (2010-2014) and European Values Survey (EVS) round fourth (2008) were selected as the data sources for testing. These two datasets were merged in unified dataset. At the moment of the research elaboration, data from six round of WVS and from the fourth round of EVS were last available data of this research project. Totally, over 100 countries participate in the World Values Survey and 47 countries in European Social Survey. Nevertheless, some datasets are not complete, because some sets of questions were not asked in some countries. Actually, sets of questions regarding protest intentions and protest behavior were not asked in some countries.

In addition to presence of the data from most former Soviet republics, WVS data were selected because these data possess all the indicators necessary for measurement of protest behavior predictors. Unfortunately, wave six of WVS was not conducted in Tajikistan and Turkmenistan. Besides of this, in the sample of Uzbekistan the questions about intentions to participate in the protest actions as well as the questions about past participation in collective action were not asked. Therefore, these countries were excluded from the analysis due to the missing data.

Finally, twelve Post-Soviet countries were selected for the analysis: Lithuania, Latvia, Estonia, Ukraine, Russia, Belarus, Moldova, Georgia, Azerbaijan, Armenia, Kazakhstan and Kyrgyzstan. Since multi-level modelling requires as many countries as possible, for the statistical reasons fourteen Post-Communist countries were added to the sample: Poland, Hungary, Slovak Republic, Czech Republic, Romania, Bulgaria, Slovenia, Croatia, Macedonia, Montenegro, Serbia, Albania, Bosnia

and Herzegovina, Kosovo and Germany (though only Eastern part of it was Socialist). Overall, individual-level sample includes 41362 respondents nested within 27 countries.

(6) **Roadmap:** Briefly describe the analytical steps that you will follow.

1. Cleaning of the EVS and WVS from spare samples (i.e. countries, which are not belong to the Post-Communist space).
2. Merging of the EVS and WVS in unified dataset (overall sample = 41362 respondents), because the countries, necessary for the analysis, initially were presented in different datasets.
3. Introduction of the macro-level variables to the merged datasets: GDP per capita PPP, Gini coefficient, World Bank Rule of Law Index, Freedom House Democracy Score and Economist Intelligence Unit's Political Culture Index.
4. Elaboration of the micro-level variables based on the recoding of the WVS questions: efficacy, grievances, distributive and procedural justice attitudes, socio-economic status, membership in organizations.
5. Elaboration of the dependent variables based on the recording of the WVS questions on protest intentions and past behavior.
6. Running of the two-level logistic regression models according to the sample (in STATA):
`melogit petition_int GINI GDP_PPP RuleLaw DemScore PolCulture efficacy_resp1 grievances low_pol average_pol highly_pol pro_proc2 pro_dist1 edu_2 income_scale_2 employment_2 gndr age_res age_res2 if age>=18 & age<=65 ||countries:`
7. Running of the two-level logistic regression models with cross-level interaction terms for macro-economic and macro-political predictors according to the sample (in STATA):
`melogit petition_int c.GDP_PPP##b0.pro_dist1 grievances GINI RuleLaw DemScore PolCulture efficacy_resp low_pol average_pol highly_pol pro_proc2 edu_2 income_scale_2 employment_2 gndr age_res age_res2 if age>=18 & age<=65 ||countries:, or
margins , dydx(pro_dist1) at(GDP_PPP = (3551.153 21209.52 48729.59)) post`
8. Analysis of the STATA outputs, drawing conclusions on verification of the hypotheses.