Kimmo Grönlund

Åbo Akademi University
Department of Political Science
Biskopsgatan 15
20500 Åbo, Finland
kimmo.gronlund@abo.fi

Paper prepared for the 2nd ECPR General Conference,

Marburg, Germany

Section 14, panel 2 "Knowledge and Voting".

Knowledge and Turnout – a Comparative Analysis

Introduction

Political scientists tend to consider people's political participation as a vital part of democracy (e.g. Verba and Nie 1972, Kaase and Marsh 1979, p. 27-56, Barber 1984). Participation is valued as a positive action that strengthens democracy: "Government by the people" (Heywood 2002, p. 69). On the one hand, there is a normative view that taking part in democratic decision-making is desirable1. On the other hand, there is a discussion on the prerequisites for taking part in politics. Further, the latter can be divided into at least two sub families of arguments. There are pluralist and egalitarian views (e.g. Beitz 1989, Dahl 1989) where full political equality is seen as desirable, and there are more elitist views (e.g. Schumpeter 1942) where voters are seen as ill informed about the content and context of the policy alternatives. Even though the conclusions differ, citizens' knowledge of the political

[1] It must, however, be pointed out that a high level of participation is not necessarily good for democracy (c.f. Tingsten 1937, p. 225-226). Neither does high a participation level guarantee influence on policy, this is the case especially in totalitarian states where the leader wants his followers to attend meetings and similar activities in order to indoctrinate them (Lipset 1983, p. 183).

system and parties' policy differences plays a central role in the theories of democracy. When it comes to empirical analysis, aggregated political knowledge at the individual level has been found to increase turnout at the macro level (Milner 2002, p. 64)2.

Political information is a key component in most individual-based theories of voting. Especially rational choice theories tend to emphasize the costs related to acquiring information in order to vote. Downs (1957) defined instrumental rationality and pointed out that the costs of gaining information normally exceed the returns, i.e. individual votes are indecisive at elections. In spite of this, a majority of eligible voters tend to vote in democracies. This fact is often referred to as the "paradox of voter turnout" (Green and Shapiro 1994).

The present article tackles the relationship between knowledge and political participation. It is neither a normative essay on political equality, nor a pure test of rational choice theories. Instead, it analyses the behavioral importance of political information empirically, and in a comparative manner. The independent variables of turning out to vote are expected to have both structural and individual roots. This contextual approach is possible thanks to a survey material that has been collected within the project Comparative Study of Electoral Systems (Sapiro et al. 2002). The levels of education and political information are seen as independent variables causing individuals to vote, or abstain, at elections. The impact of several intervening variables at the individual level is estimated in the analyses. Additionally, since a structural variable, the electoral system, influences turnout at the macro level, it is held constant and two sets of voters are analyzed separately. The sample consists of respondents in old democracies and relatively newly democratized countries. Therefore, the longevity of democracy is taken into account.

In the article, political participation is operationalized narrowly and it is restricted to voting at parliamentary elections. This can be motivated by the fact that voting is the

[2] Milner's evidence is limited to 12 Western countries and to a knowledge question pertaining to the United Nations. He scatters aggregated knowledge means against macro-level turnout means in local elections. However, the obtained R^2 for OLS regression is impressively high at .70.

most important and common political act that citizens take in representative democracies (Aldrich 1993: 246-247). Naturally, the concept of political participation covers a variety of dimensions beyond that of voting. In the last fifty years, the study of political participation has witnessed an expansion in the forms of participation. In a contemporary European survey-project on political participation, "Citizenship, Involvement, Democracy (CID)", the respondents are even asked about memberships in sports clubs, youth associations and investment clubs (van Deth 2001: 15-16).

In the following, the concept of *knowledge* is used as a synonym of the combined effect of (1) *formal education* and (2) *political information*. Hence, a knowledgeable person is one who has high education and is politically well-informed. A person with a low education and little political information is non-knowledgeable according to this classification. Accordingly, several levels of knowledge can be defined. The hypotheses of the study are formulated according to variations in this combined knowledge. First, however, the major intervening variable, the electoral system and its overall effects on turnout are discussed.

The electoral system and turnout

There have been several systematic attempts to establish the impact of the electoral system on political participation. These analyses are usually either comparative, and operate with macro data, or cross-national, and utilize interview data. In both cases, the level of participation is typically measured through voter turnout (e.g. Crewe 1981; Powell 1980, 1982, 1986; Blais and Carty 1990; Franklin 1996; Norris 2002). One of the most thorough studies has been carried out by Blais and Dobrzynska (1998). Their survey involves all electoral democracies in the world from 1972 to 1995. Moreover, all lower house parliamentary elections in these 91 democracies are included in the analysis. Altogether, voting in 324 national elections is analyzed. According to Blais and Dobrzynska, proportional electoral systems encourage voting. The main difference in turnout is between PR systems, including corrective mixed systems, and all other systems (Ibid. p. 248). Further, the socio-economic macro

environment is found to affect turnout. GNP per capita (log) activates and illiteracy (squared) makes passive. There is a negative logarithmic relationship between the size of population and turnout. This indicates that there is a substantial difference between small countries and all the other countries. Voters in demographically diminutive countries vote more frequently than voters in large countries. Turnout varies across continents, even after having controlled for socio-economic variables. Turnout is particularly high in Oceania and low in Africa and North America[3] (Ibid. 243-244).

Even though comparisons between countries tell us a lot of the effects of different electoral systems, they encounter a possible dilemma. How can we be sure that turnout in PR systems is higher because of the electoral system, and not because of some nation-specific variables[4]? This is why analyses within nations are useful. There are, in fact, countries where the electoral system varies within the nation, mostly at local elections. In an analysis of Swiss communal elections, Ladner and Milner (1999) find significant differences between the communes who make use of the PR and communes who have a majoritarian system. Voters in PR communes vote more frequently, even when the authors control for the size of the municipality. In another recent study, Bowler et al. (2001) trace turnout effects of cumulative voting (CV), a semi-proportional system used in about 80 jurisdictions at the local level in the USA. They hold variations in social, cultural and, naturally, national, context constant. The effect of the CV system is clear, and turnout is approximately 5 percentage points higher under CV than in similar plurality settings. In conclusion, proportional electoral systems seem to increase overall turnout.

Hypotheses

The aim of this article is to test what how two micro variables, education and political information affect turnout at the individual level. The two variables capture different aspects of knowledge; school and university education stand for the formal dimension of knowledge, whereas people's comprehension of politics represents

[3] North America covers even Central America and the Caribbean.
[4] Naturally, comparing voting in all democracies makes this risk minuscule.

their understanding of the political system and its actors. The article is an attempt to deepen the scientific understanding of the knowledge-based determinants of voting.

Education is a classic as a micro level independent variable in the study of political participation. Ever since the early electoral studies, the universal rule has been: "the better-educated people have more political interest than the less educated" (Berelson et al. 1954, 25). It has also been established that education is a key to political participation and to democratic values and practices (Almond and Verba 1963: 315-324, Lipset 1983: 40). The greater political interest and understanding encourage the highly educated to vote more frequently than the less educated. Exploiting CSES data for nine countries[5], Blais (2000: 51-53) finds that education and age are the most important variables explaining voting.

An analysis provided by Norris (2002) is based on a larger evidence, consisting of voting in 22 countries. Using the 1996 Role of Government III survey of the International Social Survey Program (ISSP), she establishes that turnout among the group with the highest education is 9.5 percentage points higher than in the group with the lowest education (Ibid. p. 94). Age, however, is the most important independent variable at the micro level explaining turnout according to Norris (Ibid. p. 86-87). Regarding the importance of education, there are contradictory findings as well. In a European analysis of voting in 16 countries 1960-1992, turnout was not found to vary according to the level of education (Topf 1995, p. 48-50). In fact, even Norris' results confirm this non-causal pattern between education and turnout in Western Europe (Op.cit.).

Possessing information about politics and political parties is a logical precondition for voting. The primary concept of this article is knowledge, which relates both to political information and formal education through school, college and university. The terminology related to knowledge is somewhat diverse in the literature. First, there are the concepts of political knowledge and political information. These are often used synonymously. Second, we have the concept of civic literacy, and it is closely related to political knowledge. Civic literacy consists of the "skills to act as competent

[5] Australia, Czech Republic, Great Britain, Israel, Poland, Romania, Spain, Taiwan and United States.

citizens" (Milner 2002, p. 3). Third, there is a cognitively oriented discussion on the relationship between political knowledge and civic education (Torney-Purta et al. 2001). This literature emphasizes classroom-based civic education and its importance to the acceptance of democratic principles and political participation (Galston 2001). Civic education of this kind is seen as an independent variable to political knowledge, and in psychological research this linkage is studied. In the present article, however, the operationalization calls attention to the product of knowledge and its participatory consequences. Education is measured through the highest level of education, whereas the objective measurements of political information represent the other component of knowledge.

Beyond the cognitive aspect of politics and polity, even though partly intertwined, we have the concepts of political interest and party identification. Political interest (e.g. Norris 2002) is often treated an independent variables in relation to turnout. Putnam (2000), who emphasizes social capital, links the negative trend in associational and other civic participation with a similar fall in political interest among Americans. Further, political information seems to vary according to age in contemporary USA. Younger generations (people born after 1964) have less political knowledge and interest than older generations, which is rather a new phenomenon. From the earliest polls in the 1940s to the mid-1970s, younger people were at least as well informed as their elders were (Ibid, p. 36). Another proxy for less political knowledge and interest among young Americans is their indifference to media coverage of public affairs (Bennett 1998).

Party identification is a concept widely used in the study of political behavior. Unfortunately, it is sometimes used in a misleading way. Since the concept was introduced by "Michigan-school" in 1950s (e.g. Campbell, et al. 1960), a whole research tradition has been based on the theory. Party identification is no doubt an important milestone in deciphering the mystery of voting. How children are socialized into political beings or how the environment affects people's values and their feelings towards political parties, are and were important supplements to known macro associations, such as class voting. Even though party identification is often used as an independent variable (e.g. Franklin 2002) explaining voting, it is hardly a genuine

independent variable whose explanatory power can be measured against other variables, say, education or social position. Party identification should probably be seen as a result of several other variables, such as family background, education and social class.

The potential problem with political interest and party identification as explanatory variables in relation to the act of voting is the fact that they are very close to the phenomenon which they are supposed to clarify. Statistically, they may explain a lot of the variance in the dependent variable. Nevertheless, using political interest and party identification as independent variables in relation to voting involves an obvious risk for tautological argumentation. It should be admitted that even the use of voter's political information as an independent variable may involve problems of the same kind. Acquiring information of political affairs can lead to political participation in practice. Theoretically speaking, being well-informed about politics seems more distinct from participation than political interest and party identity do. Still, there is a linkage between information and interest. An open question is whether we gain information about society and politics, and become interested in politics as a result. Even an opposite direction is fully feasible.

Political information is a vast concept and needs to be operationalized for empirical analysis. It can cover at least three dimensions. First, information can pertain to the individual's level of knowledge of the political system – "the rules of the game". Secondly, information can relate to the individual's knowledge of everyday politics – the current political policy-oriented debate. Thirdly and partly intertwined with the second dimension, a voter can possess knowledge of the political actors, persons or parties, and their differences ideologically. The three types of information are separable; even though they may covary in practice. In an empirical analysis that attempts to assess the importance of voter's political information, it would be ideal to be able to measure people's information level of the political system, as well as the knowledge of the political debate as well as ideological and policy differences. The measure instrument should i.e. cover the different dimensions of political information.

Because the electoral system has been found to affect voter turnout at the macro level, it will be treated as an intervening variable. Visually, the relationship between the independent variables and the dependent variable, as well as the role of the intervening variable is shown in figure 1.

Figure 1 about here

The novelty in the model, compared with previous studies, is the combined effect of formal education and political information. These two dimensions of knowledge form the independent variable. However, as can be seen in the figure, there are a number of other variables, whose effects must be controlled for. These have been chosen based on recent comparative studies of the determinants of voting (Blais and Dobrzynska 1998; Blais 2000; Norris 2002).

The hypothetical effects of knowledge on turnout are presented in figure 2. This typology is presented as a closed system and does not include any intervening variables. Still, these will be controlled for in the empirical analyses. The matrix consists of four cells and combines two levels of education and political information. As previous research demonstrates, we can anticipate that voters with low education and political information levels do not attend the polls as frequently as other voters. In the same way, highly educated voters with a lot of political information are expected to vote to a large extent. The remaining two cells are expected to represent average turnout. In these cases the contradictory dimensions are assumed to override each other's effects.

Figure 2 about here.

Data and methods

We are dealing with a cross-national survey[6], and the sets of questions vary slightly from country to country. The selection of countries from which respondents are included is based on three criteria. First, the country should be democratic. If we are to analyze the determinants of political participation through the act of voting, an essential criterion is genuine democracy. The selection is based on Freedom House ratings[7]. Second countries with effective compulsory voting are excluded amongst democracies. This can be motivated through the fact that compulsory voting has been found to boost turnout by 11 percentage points (Blais and Dobrzynska 1998, p. 246)[8]. Third, and more pragmatically, we need values on the independent and dependent variables. To be precise, in some countries the surveys have not included items on political information. The data values for the above mentioned criteria can be found in the appendix.

After the selection process, we have 19 countries for the analysis. Moreover, Spain is included twice, since it meets the criteria at two elections, in 1996 and 2000. The Spanish samples are so small that they can be brought in without a problem of national bias. Thus, there are altogether 31,746 respondents to be studied. The countries are listed in table 1. Some relevant data have been included; first the fact whether the country is an old or a new democracy is listed[9]. The electoral system of the country is shown as well as the number of respondents in the CSES material. The election at which the survey was conducted is also registered, followed by turnout statistics – the arithmetic mean amongst the respondents in the survey compared to the actual turnout in the relevant election.

Table 1 about here.

[6] Actually, the CSES is a combination of cross-nationally coordinated national surveys.
[7] The Freedom House seven scale ratings on political rights and civil liberties have been reversed, i.e. 7 corresponds to the freest nation, whereas 1 is the least free. Moreover, instead of using the arithmetic mean of the two dimensions, the scores have been multiplied with each other. This product can vary between 1 (the least democratic value) and 49 (the most democratic value). The threshold for democracy has been set to 30. The method based on the product of reversed FH scales has been suggested by Welzel and Inglehart (2001, p. 6-11). The selection based on the product is strict; a country must respect both political rights and civil liberties to the same extent.
[8] Blais (2000) included Australia in his analysis, as described above. It is clear that the comparability of voting or abstaining is poor between a country with effective compulsory voting and a country where the choice of casting a vote is non-sanctioned.
[9] Countries have been coded as old democracies if they were democratic in 1985 (and since) according to Freedom House classification.

As can be seen in table one, there is a somewhat biased division regarding the intervening variable, the electoral system. There are three single member plurality systems, six mixed member systems, of which four are majoritarian and two proportional. The remaining ten cases have proportional representation. The electoral systems have been classified according to Farrel (2001). As mentioned earlier, Blais and Dobrzynska (1998) found that turnout varies between proportional and all other forms of electoral systems. For this reason, the electoral system is dichotomized for the empirical analysis. In the dichotomy the category of proportional electoral systems consists of 12 countries (and 13 elections), whereas 7 countries belong to the majoritarian category. In terms of respondents the same relation prevails; a total of 22,681 respondents vote under a proportional electoral rule, whereas 12,100 respondents are from countries with a majoritarian electoral system.

The set of countries is ideal when it comes to a possible structural intervening variable, the size of the population. Blais and Dobrzynska (op. cit.) found that voter turnout is higher in the smallest countries, whereas there were no substantial differences among the rest of the countries. In the present article, none of the countries is diminutive in terms of population. Therefore, this intervening variable is held constant through the initial setting, the selection of countries.

In the CSES material, education is measured through the level of highest achieved education. The variable has eight different values. Political knowledge is measured through three questions pertaining to the political system or everyday politics. Unfortunately, the questions related to political information are not fully comparable across nations. In the Czech case, for instance, people were asked if they knew the electoral threshold in parliamentary elections, the name of the minister of transport, and the number of seats in the Czech Parliament. In some countries, like in the USA, the questions were related to persons, not to the rules of the political system. The American respondents were asked to identify the office held by the persons whose names were read[10]. Even though the validity of the measure of political information

[10] These were Al Gore, William Rehnquist and Newt Gingrich.

suffers from the variation, it is random when it comes to the intervening variable, the electoral system. It should be noted that education and political knowledge are not collinear in the present survey material; their bivariate correlation measured by Kendall's tau is .036.

The dependent variable, voting at the individual level, is dichotomous and calls for logistic regression analysis. In order to make the regression analyses easier to interpret, the independent (and intervening) variables have been recoded into a scale from zero to one if the variable is ordinal, or into a dummy (0/1), if the variable is dichotomous. There are two exceptions, however. Age is entered in years and electoral turnout in the respondent's district in per cent. Competing regression models are tested in order to establish the importance of education and information, controlling for the possible intervening variables as described in figure 1. Based on the models, a final model is produced and compared with the hypotheses. Even some visual observations in terms of turnout among different voter groups are made use of. The primary interest of the study is in the individual variation across different electoral systems, leaving national variation aside. Therefore, the analyses are carried out with unweighted data[11]. The analyses are performed separately for proportional and majoritarian electoral systems, as established earlier.

Results

The analysis is commenced by a visual observation in accordance with the typology of the hypotheses, which were presented in figure 2. Table 2 cross-tabulates voters according to their levels of education and political information. We have four types of electors in two electoral systems. Each cell represents respondents who have cast a vote at the parliamentary election. Turnout is listed as a relative share in per cent of the total electorate within each category. The absolute number of the electorate in each category is given within parentheses.

[11] The CSES data includes three weights; "sample", "demographic" and "political". As the labels imply, they aim to correct different problems related to the national samples. Unfortunately, none of the weights cover all of the countries that are included in the analysis. Therefore, no weights have been used. The number of respondents is high in pooled data, which should make any reliability problems related to national samples small.

Table 2 about here.

The highest turnout is among the highly educated and informed voters[12] in both electoral systems. Over 90 per cent of them vote in proportional systems and 85.6 per cent in majoritarian systems. In the same way, the hypothesis seems to hold for voters with a low education and information level; turnout is lowest among them – 72.2 per cent in proportional and 69.4 in majoritarian systems. Of the remaining two categories, people with a high education and low political information level seem to vote according to the hypothesis, their turnout represents average turnout, especially in proportional systems. The average turnout in the whole material is 78.8 per cent; in proportional systems 79.7 and in majoritarian systems 77.2 per cent[13]. Low education and a high level of political information generate a fairly high turnout, 83 per cent. Education seems to have a greater impact in the proportional systems but on the whole political information appears to be a more important independent variable. A test of the statistical significance of the differences will be carried out in the following.

Table 3 consists of logistic regression analyses within the two electoral systems. In the analyses, three independent dummy variables are entered. Since all respondents are included in the four groups, the category of voters with a high education and a low information level form a control group. Five of the differences in turnout between the groups are significant at the .001-level, the only exception being “LoweLowi”-voters in majoritarian systems. The negative difference in odds ratios between them and “HigheLowi”-voters is significant at the .05-level. This is partly due to the fact that the latter have a lower than average turnout (t-value 4.6, p=.000, in a separate test of means). As established above, information seems to be more important than education in explaining voting.

[12] Thresholds for “low” respectively “high” have been defined as follow. Low education is from none to completed secondary school. High education is from post-secondary trade or vocational school to completed university education. Low information is zero or one correctly answered political knowledge questions in the survey. High information is two or three (the total is three) correctly answered questions.

[13] According to real electoral results, the average turnout figures are lower: 72 per cent in the elections with a proportional system and 65 per cent in the elections with a majoritarian system.

Table 3 about here.

If we put the results in the initial typology, we get the following results (figure 2). Outcomes in accordance with the hypotheses are written in italics. In proportional systems, three hypotheses gain support. “HigheHighi”-voters vote more frequently than others, “HigheLowi”-voters cast votes to the same extent as the national average, and “LoweLowi”-voters are the most passive ones at elections. Only the group of voters with “LoweHighi” deviate from the hypothesis; their turnout is higher than average. Even in majoritarian systems the extreme groups with highest and lowest levels vote according to the hypotheses, and the group of low education and high information voters turn out more than average. Highly educated voters with low information, however, seem to vote less frequently. Therefore, only two hypotheses seem to be verified in majoritarian systems.

Figure 2 about here.

The analyses of variance above were carried out with categories of voters and give the impression that political information is a more important explanatory variable than formal education. In order to establish how the two independent variables affect the probability of voting in relation to the intervening variables that were presented in figure 1, further analyses are needed. Tables 4 and 5 consist of three competing models, after which a final model is formulated. In the first model, only the components of knowledge, i.e. education and information are entered. The second model controls even for individual characteristics: age, gender, marital status, having younger than 18 years old children living at home, membership in a trade union, unemployment and the income level of the respondent’s household in national quintiles. The third model in includes the knowledge variables and controls for contextual effects at the meso and macro level. Finally, a model with the best fit is presented.

Tables 4 and 5 about here.

In table 4 the analyses are carried out amongst voters in proportional electoral systems and in table 5 correspondingly in majoritarian systems. In the first model, ("pure knowledge"), only the two independent variables education and political information are included. In both electoral systems, the model has a fit and possessing political information is more powerful than having a high education. Further, education seems to be more important in proportional than majoritarian systems, such as earlier observations implied.

The second model consists of variables at the individual level and controls for nine new variables. This model is more powerful than the first one, the Chi-squares for the model have higher values and, consequently, the -2 LL –values are lower. In both electoral systems, the share of missing cases has increased to almost 25 per cent of the original sample. Education and political information are important even in this model. Of the additional variables both age and marriage seem to increase the probability of voting in both electoral systems. In proportional systems belonging to a trade union affects voting in a positive manner. Being widowed or divorced do not affect the probability of voting in either system. Gender is of no importance in either system. Even though the patterns are similar, there are even differences between voters in the two systems. In proportional systems education, political information and age seem to be approximately important. In majoritarian systems, education is less important than age. Union membership and living with under aged children is increase voting clearly in proportional systems, whereas the activating effect is vaguer in majoritarian systems.

Prior to moving on the final regression model, a third equation is produced in order to see how structural constraints affect the likelihood of voting at the individual level. The "contextual model" includes the original independent variables education and political information. It controls for three additional variables; urban environment and old democracy as dummies, and turnout in the respondents' district in per cent. District turnout is hard data and has been entered by the national research teams. In

countries with a majoritarian electoral system, urban residency could not be included in the regression model, since data were missing for large majority of the respondents. Still, the share of missing cases systems rises to 38 per cent in the model; data for district turnout is missing for many respondents. This is not problematic in terms of sample size, but the missing cases consist often of whole nations where some of the independent variables have neither been asked nor recorded. Therefore, even though significant in the contextual model, district turnout is excluded in the final model for majoritarian systems.

In both electoral systems, the final models include the knowledge variables education and political information. Also age, marriage and living with under aged children are included in the final model in both systems. The dummy for old democracy is not significant in combination with the variables at the individual level. Therefore it is not included in the model in majoritarian systems. Each of the independent variables in the final model has a positive impact on voting. In proportional systems, even union membership and turnout in the electoral district increase the probability of voting. The overall effect of the final model is larger in proportional systems, of which the model Chi-squares witness. Even the other measurements, with the possible exception of the -2 LL value, suggest that the final model has a better fit in proportional systems.

Possessing political information is the most important independent variable at the individual level explaining turnout. Intervening variables do not change the explanatory power of political information. Even the other component of knowledge, education, increases the likelihood of turning out to vote, and its importance prevails through the models. The initial analysis suggested that education would be a slightly more important variable in proportional than in majoritarian systems. This is even implied by the first regression model in tables 4 and 5. However, when we control for intervening variables, the difference becomes less obvious. In the final model the B-value is .1 higher in proportional systems. Even age is important. The Wald values for age are actually higher than for education, especially in majoritarian systems. The value of the B-coefficient for age is .02 in both systems. This seems low but if we multiply it with 10, we see the change in age cohorts of ten years. Consequently,

there is a substantial difference in the odds ratio of voting between a 20-year-old and a 60-year-old voter.

Turnout in the electoral district affects highly positively the probability of turning out to vote in proportional systems (Wald=627). Its real impact, however, in terms of the probability to vote is somewhat unclear. Even though turnout varies within nations (e.g. in the Spanish election of 1996, between 67 and 84 per cent at the district level), this variation is in terms of units less extensive than the variation in age among voters. Nevertheless, it is an interesting discovery. In the light of the result we might deduce that voters in proportional systems are less inclined to vote strategically than voters in more complicated systems. Thus, to vote or not to vote might reflect a local social norm in the PR systems, especially if the voter does not fall into any of the extreme classes on the three main explanatory variables – age, education or political information.

Conclusions

The results above indicate that mainly three variables explain voting at the individual level. Political information seems to be the most important independent variable, followed by age and education. Even marriage and having young children at home increase the probability of voting. Of the contextual variables, turnout in the voters' electoral district is a powerful predictor in proportional systems.

The results seem convincing. Knowledgeable persons vote more than average, and non-knowledgeable persons remain passive more often than usual. The core hypotheses gain i.e. support in the light of the comparative data. Even though credible, the results raise new questions. The causal relationships between the concepts political interest, political information and political participation remain blurred. Within electoral research, we are sometimes keen on finding high statistical inference so desperately that theoretically valid reasoning is overlooked. Is there a risk that political information is a proxy for political interest? Are we merely suggesting that people vote because they get pleasure in voting, along the

argumentation for the D-term by Riker and Odershook (1968)? In the CSES data, there is a weak positive correlation between education and political information on the one hand and age and information on the other hand. Moreover, age survived as a significant variable in the regression models above. Since the three phenomena seem intertwined, a new control function is added. Both voting and the level of political information are treated as dependent variables, whereas the variables age and school education are independent variables. For groups of voters are analyzed. These are young people with low education, young people with high education, old people with low education and old people with high education[14]. In table 6, the means of turnout and political information[15] within the groups are calculated. The absolute number of the total electorate within each group is given within parentheses. The electoral system is held constant.

Table 6 about here

The differences in means in turnout and political information have been tested among the groups of respondents differ from the corresponding levels within the relevant electoral system. Turnout among voters in proportional countries is 79.7 and in majoritarian ones 77.2. The equivalent means of political information are .51 and .50. The means within voter groups were tested with the one sample t-test. Statistically significant deviations at the .001-level are marked in bold.

Old people vote more frequently than young voters. This pattern is clear in majoritarian systems, but even in proportional systems age boosts turnout. Political information, on the other hand, does not seem to vary as obviously according to education and age. It is undoubtedly true that the highly educated old voters possess more political information than voters in the other groups but the remaining differences are less clear. Especially the group of young highly educated voters in

[14] The coding has been done as follows. Age: Young people are between 18 and 35 years old. Old people are at least 55 years old. Education: Low education is up to secondary completed school. High education is at least post-secondary trade or vocational school.
[15] Political information varies between zero (lowest) and one (highest).

majoritarian electoral systems is puzzling. Their turnout is lower than among the poorly educated old voters even though the mean of political information is .15 units higher in the young group. Young highly educated voters in majoritarian systems know more about politics than their brothers and sisters in proportional settings. Nevertheless, they vote less. Should the answer be sought along the lines of rational choice or do is there a general dealignment among the youth in majoritarian countries? After all, the group with the lowest turnout is represented by the young poorly educated voters in the same countries.

Even though political information is powerful in both electoral systems, it seems to have different positions. Voters in proportional systems are more evenly spread in terms of political information than voters in majoritarian systems. In the former, political information seems to be more independent from age and education, whereas it seems to covary with education in the latter. This finding is interesting in a way. Majoritarian electoral systems are often justified through the fact that they are easier to understand than proportional systems. More often than not, countries with a majoritarian system have less effective parties than countries where a proportional formula is used. In spite of this, the levels of political information seem to vary more among voters in majoritarian systems.

Conceptually, the main finding of the article is that political information seems to possess an explanatory power of its own. Even if we control for individual variables such as education and age, structural variables such as electoral system, or contextual variables such as district turnout or longevity of democracy, political knowledge is the most powerful single variable. However, the concept of political information and its role in relation to other variables, mainly education on the hand and political interest on the other hand should be studied more closely. These studies could be useful either in cross-national and/or in experimental settings. The role of civic education and the role of interest ought to be deciphered. It is reasonable to conclude that you want to gather information of something you are interested in. In rational choice terms, there are no information costs for the politically interested. In other words it would be important to find out what causes people to distribute

themselves along a continuum from the sociable man via the political man to the ideological man, as so convincingly summarized by Berelson et al. (1954: 323).

References:

Aldrich, John H. 1993. Rational Choice and Turnout. *American Journal of Political Science* 37/1, 246-278.

Almond, Gabriel A. and Verba, Sidney. 1963. *The Civic Culture. Political Attitudes and Democracy in Five Nations.* Boston: Princeton University Press.

Barber, Benjamin. 1984. *Strong Democracy. Participatory Politics for a New Age.* Berkeley and Los Angeles: University of California Press.

Beitz, Charles R. 1989. Political Equality. An Essay in Democratic Theory. Princeton: Princeton University Press.

Bennett, Stephen Earl. 1998. Young Americans' Indifference to Media Coverage of Public Affairs. *PS: Political Science & Politics.* Vol. XXXI, No. 3. 535-542.

Berelson, Bernard R; Lazarsfeld, Paul F. and McPhee, William N. 1954. Voting*. A Study of Opinion in a Presidential Campaign.* Chicago: The University of Chicago Press.

Blais, André. 2000. *To Vote or Not to Vote. The Merits and Limitations of Rational Choice Theory.* Pittsburgh: University of Pittsburgh press.

Blais, André and Carty R.K. 1990. Does proportional representation foster voter turnout? *European Journal of Political Research* 18, 167-181.

Blais, André and Dobrzynska, Agnieszka. 1998. Turnout in electoral democracies. *European Journal of Political Research* 33, 239-261.

Bowler, Shaun; Brockington, David and Donovan, Todd. 2001. Election Systems and Voter Turnout: Experiments in the United States. *The Journal of Politics* 63/3, 902-915.

Campbell, Angus; Converse, Philip; Miller, Warren and Stokes, Donald. 1960 *The American Voter.* New York: John Wiley.

Crewe, Ivor. 1981. Electoral Participation. In Butler D, Penniman H. and Ranney A. (Eds.) *Democracy at the Polls: A Comparative Study of Competitive National Elections.* Washington, DC: American Enterprise Institute.

Dahl, Robert A. 1989. *Democracy and its Critics.* New Haven and London: Yale University Press.

Downs, Anthony. 1957. *An Economic Theory of Democracy.* New York: Harber & Row.

Farrell, David M. 2001. *Electoral Systems: A Comparative Introduction.* Houndmills and New York: Palgrave.

Franklin, Mark N. 1996. Electoral Participation. In LeDuc L, Niemi R.G. and Norris, P. (Eds.) *Comparing Democracies. Elections and Voting in Global Perspective.* Thousand Oaks: Sage.

Galston, William A. 2001. Political Knowledge, Political Engagement, and Civic Education. *Annual Review of Political Science* 4:217-34.

Green, Donald P. and Shapiro, Ian. 1994. *Pathologies of Rational Choice Theory. A Critique of Applications in Political Science.* New Haven and London: Yale University Press.

Heywood, Andrew. 2002. *Politics.* 2nd edition. Houndmills and New York: Palgrave.

Idea. *Voter Turnout from 1945 to date.* A Global Report on Political Participation. August 1, 2003 [online] <http://www.idea.int/voter_turnout/>.

Kaase, Max and Marsh, Alan. 1979. Political Action. A Theoretical Perspective. In Barnes, S, Kaase, Max et al. *Political Action: Mass Participation in Five Western Democracies.* London: Sage.

Key, V.O. Jr. 1960. The Politically Relevant in Surveys. *Public Opinion Quarterly* XXIV, 54-61.

Ladner, Andreas and Milner, Henry. 1999. Do voters turn out more under proportional than majoritarian systems? The evidence from Swiss communal elections. *Electoral Studies* 18, 235-250.

Lipset, Seymour Martin. 1983 (1959). *Political Man. The Social Bases of Politics.* Baltimore: The Johns Hopkins University Press.

Milner, Henry. 2002. *Civic Literacy: How Informed Citizens Make Democracy Work.* Hanover and London: Tufts University, University Press of New England.

Powell, G. Bingham Jr. 1980. Voting Turnout in Thirty Democracies. In R. Rose (Ed.), *Electoral Participation: A Comparative Perspective.* London: Sage.

Powell, G. Bingham Jr. 1982. *Contemporary Democracies: Participation, Stability and Violence.* Cambridge, MA: Harvard University Press.

Powell, G. Bingham Jr. 1986. American Voter Turnout in Comparative Perspective. *American Political Science Review* 86, 17-45.

Putnam, Robert D. 2000. *Bowling Alone. The Collapse and Revival of American Community.* New York: Simon & Schuster.

Riker, William H. and Ordeshook, Peter C. 1968. A Theory of the Calculus of Voting. *American Political Science Review* 62, 25-43.

Sapiro, Virginia W., Shively Philips and the Comparative Study of Electoral Systems. Comparative Study of Electoral systems, 1996-2001: Module 1 Micro-District-Macro Data [dataset]. Ann Arbor, MI: University of Michigan, Center for Political Studies [producer and distributor], 2002.

Schumpeter, Joseph A. 1942. *Capitalism, Socialism & Democracy.* London: Allen & Unwin.

Tingsten, Herbert. 1937. *Political Behavior.* London: P.S. King & Son.

Topf, Richard. 1995. Electoral Participation. In H-D. Klingemann and D. Fuchs (eds.) *Citizens and the State.* Oxford: Oxford University Press.

Torney-Purta, J., Lehmann, Rainer; Oswald, Hans; and Schulz, Wolfram. 2001. *Citizenship and Education in Twenty-eight Countries: Civic Knowledge and Engagement at Age Fourteen.* Amsterdam: IEA

van Deth, Jan W. 2001. *Studying Political Participation: towards a Theory of Everything?* Paper presented at the Joint Sessions of Workshops of the European Consortium for Political Research. Workshop “Electronic Democracy”.

Verba, Sidney and Nie, Norman H. 1972. *Participation in America: Political Democracy and Social Equality.* New York: Harper & Row, Publishers.

Welzel, Christian and Inglehart, Ronald. 2001. *Human Development and the “Expolosion” of Democracy: Variations of Regime Change across 60 Societies.* Discussion Paper FS III 01-2002. Wissenschaftszentrum Berlin für Sozialforschung (WZB).

Figure 1. The theoretical approach model.

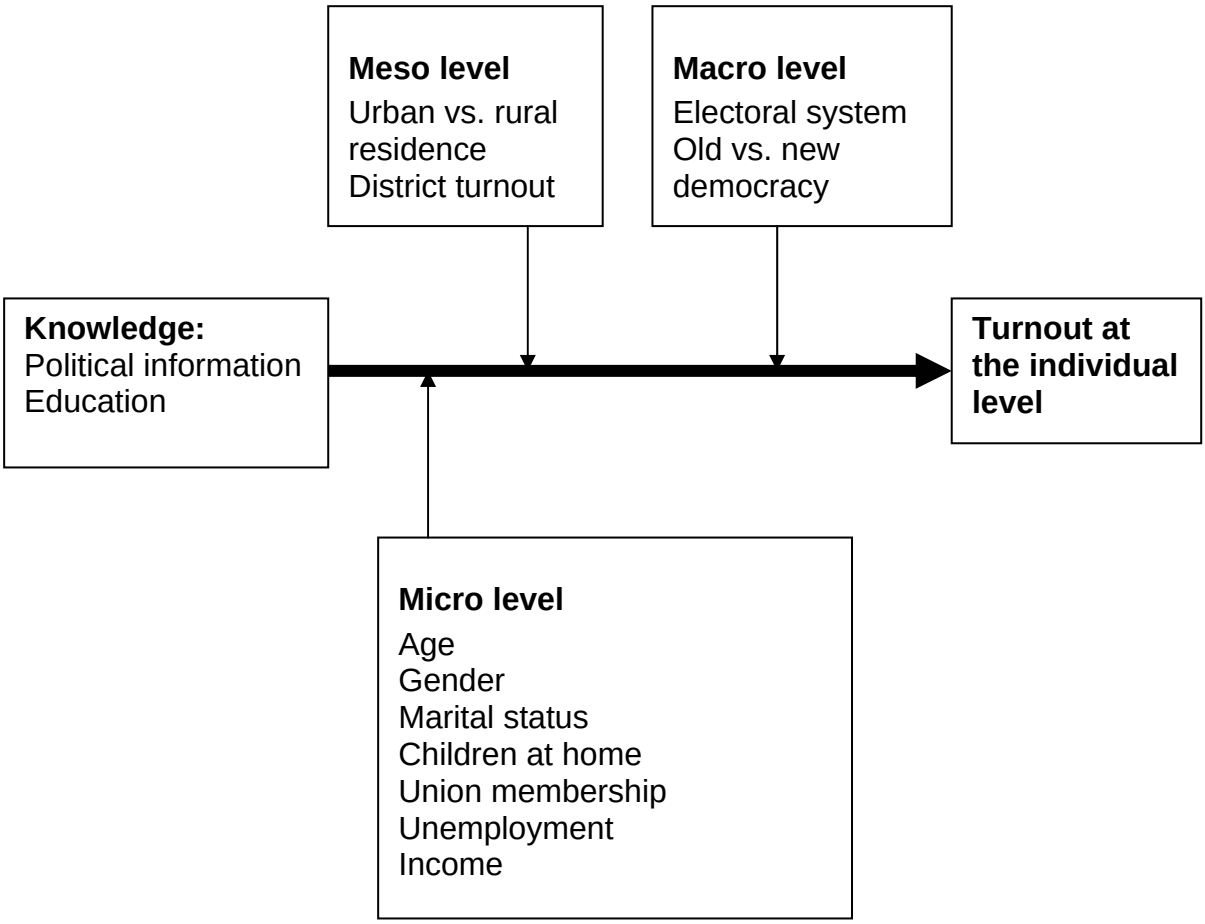

Figure 2. Hypothetical effects of education and political information levels.

Education	Political information level: High	Political information level: Low
High	High turnout	Normal turnout
Low	Normal turnout	Low turnout

Figure 3. Turnout among four groups of voters.

Education	Political information level: High	Political information level: Low
High	*High turnout*	*Normal turnout in proportional systems* Fairly low turnout in majoritarian systems
Low	Fairly high turnout	*Low turnout*

Table 1. The Countries and elections from which respondents are included in the study.

Country	Old vs. New democracy	Electoral system	Type of electoral system	N	Election year	Turnout in the CSES data (i)	Actual turnout (j)	Diff. (i) - (j)
Canada	Old	SMP	M	1 851	1997	78.2	67.0	11.2
Czech Rep.	New	PR	P	1 229	1996	88.2	76.3	11.9
Germany	Old/New	MMP	P	2 019	1998	83.0	82.2	0.8
Great Britain	Old	SMP	M	2 931	1997	81.6	71.5	10.1
Hungary	New	MMM	M	1 525	1998	67.1	56.7	10.4
Israel	Old	PR	P	1 091	1996	83.2	79.3	3.9
Japan	Old	MMM	M	1 327	1996	76.9	59.0	17.9
Mexico	New	MMM	M	1 441	2000	76.7	57.2	19.5
Netherlands	Old	PR	P	2 101	1998	77.6	73.2	4.4
New Zealand	Old	MMP	P	4 080	1996	94.6	88.3	6.3
Norway	Old	PR	P	2 055	1997	85.7	78.0	7.7
Poland	New	PR	P	2 003	1997	55.0	47.9	7.1
Portugal	Old	PR	P	1 303	2002	86.7	62.8	23.9
Romania	New	PR	P	1 175	1996	80.9	76.0	4.9
Spain_1	Old	PR	P	1 212	1996	77.8	78.1	-0.3
Spain_2	Old	PR	P	1 208	2000	68.5	68.7	-0.2
Sweden	Old	PR	P	1 157	1998	86.9	81.4	5.5
Switzerland	Old	PR	P	2 048	1999	58.8	43.2	15.6
Taiwan	New	MMM	M	1 200	1996	80.8	76.2	4.6
USA	Old	SMP	M	1 534	1996	75.6	66.0	9.6

Old democracies: Free according to Freedom House at least as of 1990.
Electoral systems: SMP (Single Member Plurality), MMM (Mixed Member Majoritarian), MMP (Mixed Member Proportional) PR (Proportional Representation)
Type of electoral system: M = majoritarian, P = proportional.
Turnout in per cent of registered voters. Source: IDEA.

Table 2. Turnout among four groups of voters.

Proportional electoral systems

		Political information level: high	Political information level: low
Education	high	**90.5** (4 073)	**80.6** (2 211)
	low	**82.9** (7 142)	**72.2** (6 454)

Majoritarian electoral systems

		Political information level: high	Political information level: low
Education	high	**85.6** (2883)	**72.4** (1415)
	low	**82.8** (3269)	**69.4** (4 504)

Table 3. Voting and the importance of education and political information.

Three groups of people in logistic regression.

Dependent variable: voting (no=0, yes=1)	**Proportional systems**			**Majoritarian systems**		
	B	Wald	p	B	Wald	p
Low edu, Low info	-0.43	61.8	***	-0.13	3.9	*
Low edu, High info	0.19	10.7	***	0.62	69.0	***
High edu High info	0.87	141.0	***	0.84	111.7	***
Constant	1.39	777.0	***	0.95	261.7	***
N	22 681			12 100		
Percent correctly predicted	79.7			77.2		
Model Chi-sq.	684.1		***	358.2		***
-2 Log likelihood	22188.2			12636.5		
Nagelkerke R Sq.	0.05			0.04		

Significant * at the .05-level, ** at the .01-level, *** at the .001-level.

Table 4. The determinants of voting in proportional systems. Logistic regression.

Dependent variable: voting (no=0, yes=1)	Pure knowledge			Individual model			Contextual model			**Final model**		
	B	Wald	p	B	Wald	p	B	Wald	p	**B**	**Wald**	**p**
education	1.27	266.0	***	1.49	214.8	***	0.65	53.6	***	**0.93**	**94.7**	***
political info	1.07	400.2	***	0.92	205.9	***	1.30	405.5	***	**1.16**	**312.0**	***
age				0.02	83.9	***				**0.02**	**131.5**	***
male				-0.17	0.2							
married				0.36	39.5	***				**0.31**	**49.3**	***
widowed				-0.05	0.3							
divorced				-0.17	4.1	*						
children				0.05	7.0	*				**0.27**	**37.2**	***
union				0.57	114.6	***				**0.41**	**59.6**	***
unemployed				-0.25	8.7	*						
income				0.13	3.7							
urban							-0.07	1.8				
district turnout							0.04	816.0	***	**0.04**	**626.9**	***
old democracy							0.03	0.3				
Constant	0.26	37.3	***	-0.84	81.1	***	-2.29	345.8	***	**-3.18**	**618.7**	***
N	22 366			17 196			18 982			**19 051**		
Missing cases in percent	1.4			24.2			16.3			**16.0**		
Percent correctly predicted	79.8			79.7			82.7			**82.7**		
Model Chi-sq.	905.7		***	1159.4		***	1525.5		***	**1866.3**		***
-2 Log likelihood	21616			16250			16480			**16209**		
Nagelkerke R Sq.	0.06			0.10			0.13			**0.15**		

Significant * at the .05-level, ** at the .01-level, *** at the .001-level.

Table 5. The determinants of voting in majoritarian systems. Logistic regression.

Dependent variable: voting (no=0, yes=1)	Pure knowledge			Individual model			Contextual model			**Final model**		
	B	Wald	p	B	Wald	p	B	Wald	p	**B**	**Wald**	**p**
education	0.36	15.2	***	0.81	43.2	***	0.27	4.2	*	**0.82**	**67.4**	***
political info	1.23	324.1	***	1.22	209.0	***	1.09	152.6	***	**1.15**	**255.3**	***
age				0.02	84.1	***				**0.02**	**207.2**	***
male				-0.09	2.6							
married				0.26	12.8	***				**0.19**	**67.5**	***
widowed				-0.19	2.5							
divorced				-0.33	0.1							
children				0.02	1.0					**0.21**	**19.4**	***
union				0.15	4.7	*						
unemployed				-0.19	2.4							
income				0.11	1.8							
urban												
district turnout							0.01	11.6	***			
old democracy							0.34	16.5	***			
Constant	0.26	37.3	***	-0.83	46.3	***	-0.58	6.3	***	**-0.94**	**73.7**	***
N	12 071			9 404			7 547			**12 047**		
Missing cases in percent	0.2			22.3			*37.6*			**0.4**		
Percent correctly predicted	77.2			77.9			77.1			**77.4**		
Model Chi-sq.	449.1		***	600.5		***	345.3		***	**678.6**		***
-2 Log likelihood	12501			9368			7776			**12242**		
Nagelkerke R-sq.	0.06			0.10			0.07			**0.09**		

Significant * at the .05-level, ** at the .01-level, *** at the .001-level.

Table 6. Turnout and political information levels according to age and education.

Proportional electoral systems (Turnout 79.7, political information .50)

		Age: young	Age: old
Education	high	**82.9** (2362) **Info .53**	**90.8** (1342) **Info .69**
	low	**70.6** (4782) Info .51	80.3 (5663) Info .50

Majoritarian electoral systems (Turnout 77.2, political information .51)

		Age: young	Age: old
Education	high	75.0 (1775) **Info .60**	**87.5** (805) **Info .66**
	low	**66.8** (1997) **Info .40**	**80.2** (2986) **Info .45**

Appendix. The selection of the countries among the CSES countries.

Country	Compulsory voting	Polinfo ¤	Year	Political Rights rev.#	Civil Liberties rev.#	Reversed FH product	Qualified
Australia	Strict	3	1996	7	7	49	
Belarus	No	0	2001	2	2	4	
Belgium	Strict	3	1999	7	6	42	
Canada	No	3	1997	7	7	49	X
Czech Rep.	No	3	1996	7	6	42	X
Denmark	No	0	1998	7	7	49	
Germany	No	3	1998	7	6	42	X
Great Britain	No	3	1997	7	6	42	X
Hungary	No	3	2000	7	6	42	X
Iceland	No	0	1999	7	7	49	
Israel	No	3	1996	7	5	35	X
Japan	No	2	1996	7	6	42	X
Mexico_1	Weak	3	1997	5	4	20	
Mexico_2	Weak	3	2000	6	5	30	X
Netherlands	Not enforced	3	1998	7	7	49	X
New Zealand	No	3	1996	7	7	49	X
Norway	No	3	1997	7	7	49	X
Peru_1	Weak	0	2000	5	5	25	
Peru_2	Weak	0	2001	7	5	35	
Poland	No	3	1997	7	6	42	X
Portugal	No	3	2002	7	7	49	X
Romania	No	3	1996	6	5	30	X
Russia	No	0	1999	4	3	12	
Slovenia	No	0	1996	7	6	42	
South Korea	No	0	2000	6	6	36	
Spain_1	No	3	1996	7	6	42	X
Spain_2	No	3	2000	7	6	42	X
Sweden	No	3	1998	7	7	49	X
Switzerland	No *	3	1999	7	7	49	X
Taiwan	No	3	1996	6	6	36	X
Thailand	Not enforced	0	2001	6	5	30	
Ukraine	No	3	1998	5	4	20	
USA	No	3	1996	7	7	49	X

¤ The number of political information questions in the national survey
* Strictly enforced in one canton
# Reversed Freedom House scale on Political Rights and Civil Liberties; 7 is the freest, 1 the least free.
http://www.idea.int/vt/analysis/Compulsory_Voting.cfm
http://www.freedomhouse.org/ratings/index.htm