Formal Education and Unequal Political Participation in Europe.

A Multi-level Approach.

Paper prepared for the Conference on Elections, Public Opinion, and Parties, Lancaster 2013

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Introduction

Education is one of the usual suspects in the analysis of voting behaviour and especially within the domain of turnout. "The higher the education, the greater the 'good' values of the variable. The educated citizen is attentive, knowledgeable, and participatory and the uneducated citizen is not" (Converse 1972: 324). This classic and exemplary statement emphasizes the critical role education has played for a long time in the domain of voting research and there is hardly any empirical analysis of individual turnout that does not include education (see Achen 1997 for a critique).

Turnout and education are statistically connected. This is undisputed and substantial variation with regard to turnout rates between voters with different educational level can be observed not only in the United States but also in Europe. Countries like the Czech Republic, Germany or Poland show large turnout biases with regard to educational attainment. Highly educated people turn out at substantially higher rates than their less educated fellow citizens. At the same time there are countries where turnout and education seem to be only weakly correlated. Spain or the United Kingdom are examples for countries where turnout does not vary with educational attainment.

Recently scholars are trying to solve this puzzle by looking at the features of political systems that may account for socially biased turnout (e.g. Gallego 2010; Gallego forthcoming; Persson 2013). The questions they seek to answer are: Do contextual features impact differently on different groups of voters? Or within the domain of educational attainment: Is there a differential effect of system level factors which makes the act of voting harder or easier for the lower educated? And can electoral engineering or altering other important subsystems of the political system solve these problems?

There is a line of reasoning going back at least to Tingsten (1937, Persson 2013, but see also Sinott/Achen 2008) that relates turnout to political inequality. The law of dispersion states that lower turnout rates go in line with higher inequality and vice versa. Lijphart's (1997) argument points in the same direction. Higher turnout for him serves as a remedy for political inequality and he makes a strong argument for compulsory voting. Nevertheless Gallego (forthcoming, see also Sinnott/Achen 2008) convincingly argues that higher turnout rates do not necessarily reduce inequality (e.g. between high and low educated voters). Rising turnout levels do not always imply smaller turnout gaps between social status groups unless we have near universal turnout among the members of the politically privileged (Gallego forthcoming). Factors that reduce the turnout gap by raising turnout among the less and least educated whilst not influencing turnout among

the highly educated may be most noteworthy or desirable but at the same time they can rarely be found. This is important because it points out the difficulties that are associated with closing the participation gap.

The discussion of unequal participation leaves a blind eye in I think. By concentrating on turnout gaps between social status groups the importance of overall turnout levels are often overlooked. The normative problem that arises can be stated as follows. Do we concentrate on the social turnout gap in order to assess democratic quality or do we also take the sheer number of voters, that is the overall turnout level, into account. When we assess the impact of some macro-level effect it is not sufficient to criticise that it may increase the social participation gap when it is possible that it also increases overall turnout. I do not think that it is a more desirable to have small social turnout gaps while turnout is plodding along very low rates. The question is: What is more desirable? Is it more important to close the social turnout gap or to include as many citizens in the electoral process as possible? Of course these two things are closely inter-related but they are not the same. Diminishing participation gaps can result in higher overall turnout but it does not have to. Assigning more normative weight to equalizing participation has serious implications. Votes of citizens who possess more socio-economic resources are de facto devalued if closing the participation gap is prioritized. I would not regard it as democratic to value the votes of two citizens differently.

In order to address this issue I suggest a two-dimensional typology that combines effects on participatory (e.g. turnout) gaps on the one hand and effects on the level of participation on the other hand. In addition, I try to link this typology to normative considerations to develop some sort of hierarchy of normative desirability. This hierarchy shall serve the classification of the impact of different features of the macro-level on turnout gap and level. This makes it possible to normatively evaluate those effects by locating them within the normative hierarchy. Furthermore it is used to formulate a systematic set of expectations or hypotheses about contextual effects on individual-level relations. Hypotheses about macro-level effects can be located within the typology and this in sheds light on the structure of macro-level effects and gives an overview of the mode of operation of different macro-level effects.

The second part of the paper consists of the empirical test of these hypotheses about the relationship of macro-level factors and their impact on the education-turnout nexus at the micro-level (e.g. as moderator variables). The relationship between micro and macro level will be tested empirically using multi-level regression. The paper closes with a conclusion.

Theoretical Framework

Education and Turnout

Theories of education and turnout formulate two prominent mechanisms that link education to turnout. These mechanisms are not mutually exclusive nor are they exhaustive. On the one hand education enhances the cognitive abilities needed to deal with the complexity of the electoral process e.g. learning the party or candidate positions or the issues that are at stake. On the other hand education serves as a sorting mechanism that assigns people to social status. People with higher social status are more likely to turn out because they occupy significant positions in their social networks (Nie/Junn/Stehlik-Barry 1996). The first view assumes a causal relationship the second regards education as a proxy for social resources that make turning out more likely. I will focus on the cognitive mechanism and the factors of the macro level that exert influence through this mechanism.

Education is supposed to influence turnout through the channel of cognitive ability that is necessary to cope with the complex information environment that goes along with elections. Highly educated citizens are claimed to better be able to understand and make sense of the political context. They are more likely to overcome the cognitive costs associated with the electoral process. Thus aspects of the political system that reduce those costs should diminish the role of formal education for turning out. In addition, mobilizing institutions like labour unions or extreme parties can foster lower-class turnout by compensating the cognitive costs e.g. by the proliferation of political information or by appealing to their members to participate (Jusko 2011; Gallego forthcoming). In a later these considerations are exposed in more detail.

A typology of macro-level effects on voter turnout

This part develops a typology that links macro-level effects on turnout gap to effects on turnout level. It should be emphasised that this typology is not tailor-made for the research presented here but can be used in the analysis of context dependent micro-level effects in general.

Generally speaking moderating effects of macro-level factors on micro-level relationships can be threefold. They can be positive, neutral or negative that is enhance, diminish or not impact at all on turnout gap or level. It is important to note that I do not claim these dimension to be independent. Of course they are not because increasing social gaps can also impact on turnout level but they do not necessarily have to.

Figure 1 illustrates these considerations. From a normative point of view rising levels of turnout combined with diminishing differences between social groups (cell 7) seem to be most desirable. These effects occur in contexts of very high turnout rates among the socially advantaged which makes macro-level effects most likely to impact on the disadvantaged and at the same time increasing overall turnout (e.g. in compulsory voting settings). This is simply a ceiling effect (Achen/Sinnott 2008; Gallego forthcoming).

At the same time it is obvious that factors that impact negatively on turnout levels and increase social turnout gaps (cell 3) can be considered least desirable. Difficult registration procedures are examples for such a relation because they tend to depress turnout in general and especially among lower status people. This in is supposed turn increases the turnout gap.

Sorting the remaining combinations according to an underlying normative hierarchy is not easy. In order to reach at a reasonable solution a simple strategy is pursued. Positive, negative and neutral effects are weighted equally. That is if some contextual factor increases turnout but at the same time enlarges the participation gap a neutral value is assigned, because positive and negative effects cancel each other out. This has the effect that some combinations tie which does not seem to be very problematic. Finally, one reaches the following solution: $7 > 4$, $8 > 5$, $9 > 2$, $6 > 3$. Effects that are located in cells 4, 7, and 8 are desirable effects because they either close the participation gap or raise overall turnout level whilst not increasing the gap. The effects belonging to cells 2, 3 and 6 are normatively problematic because they work in the opposite direction, that is diminish turnout or enlarge the turnout gap between lower and higher social status groups.

Having introduced this typology the next step is to formulate expectations about the ways in which certain macro-level effects impact on turnout level and gap. That is locating them within the typology. This task is not easy because it may well be that we have competing views about the effective direction of certain macro-level factors and their interaction with micro-level factors. Finally it is an empirical question. Multi-level models are an ideal methodological tool to test such hypotheses about level and gap effects because they explicitly allow for testing effects on intercepts (level) and slopes (participation gap or inequality).

Figure 1: A typology of macro-level effects on turnout gap and turnout level

		effect on turnout level		
		+	0	-
effect on social turnout gap	+	1	2	3 least desirable (difficult registration procedure)
	0	4	5 not interesting	6
	-	7 most desirable e.g. ceiling effect (compulsory voting)	8	9

Source: by the author

Formalizing Effects on Level and Gap of Turnout

Of course this typology is quite abstract and it may well be and certainly is the case that several cells are not occupied in the empirical world. Nevertheless it can be useful. I hope this section will show why this is the case by making it the backbone of the mathematical translation of the theoretical reasoning on different types of macro-level effects on the micro-level relations.

In a statistical sense level effects can be thought of as effects which impact on the intercept of a regression model. Thus one is able to set up an equation that models this intercept as an outcome of macro-level factors. Same applies to the effects on the turnout gap which is nothing else than the slope of a regression. The larger the effect of education on turnout the larger the turnout gap between different educational groups. Using conventional multi-level terminology (Hox 2010) I begin by writing down a generic multi-level regression equation on the individual level:

$$Y_{ij} = \beta_{0j} + \beta_{1j}X_{ij} + r_{ij}$$

In this regard the level effect can be displayed as an intercept-as-outcome equation:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}W_j + u_{0j}$$

The effect on the turnout gap can be formalized as a slope-as-outcome equation:

$$\beta_{1j} = \gamma_{10} + \gamma_{11}W_j + u_{1j}$$

Wj is a vector that consists of all macro-level factors that affect the system-level specific slopes and intercepts. The next step is therefore reviewing theory to identify possible macro-level features that are part of the vector Wj and exert influence on turnout level and turnout gap.

Contextual Dependence of Education and Turnout at the Micro-level: Setting up the Model

This section outlines the theoretical considerations that underlie the empirical models that are employed in the analysis section. I start at laying out the model at the micro-level. Afterwards I present the theoretical considerations that underlie the model at the context level.

Micro-level Model

First of all I set up a micro-level model that links education and turnout. This model is very simple and does not include variables that are potential results of education (e.g. income or political interest) to avoid so-called post-treatment bias that is biased effects that result from controlling for causal successors of the treatment variable education (King 2010; Angrist/Pischke 2008; Gallego forthcoming). Age is an important factor that is related to education and turnout as well. Older people turn out at higher levels but at the same time they possess lower levels of education. Thus age and because of the curvilinear relation of age and turnout squared age is controlled for. A second factor that has to be controlled for is gender. I end up with a very parsimonious model of education and turnout at the micro-level:

$$Probability\,Vote_i = \beta 1 * education_i + \beta 2 * age_i + \beta 3 * age^2{}_i + \beta 4 * gender_i$$

Effects of the Macro-level: Contingent Education Effects

The study of turnout at the macro-level has found several contextual factors affecting turnout. In line with the purpose of this paper I have to concentrate on those features of the macro-level that influence turnout through the channel of formal education be it via cognitive, motivational or social sorting mechanisms. I divide macro-level factors that influence turnout via through the channel of education in two classes: institutional factors and party system-related factors. In the following sections I try to isolate those macro-level factors.

Institutional context

Institutional constraints condition the voting process because they constrain individual-decision making in a substantial manner (Sniderman/Levendusky 2007). Because of their degree of complexity institutions can make the act of voting harder or simpler. In line with a cognitive argument clear and transparent institutional settings should diminish the role of formal education

because the cognitive effort has to be made in order to make sense of the political environment is lower. A second line of reasoning emphasises the mobilizing role institutions like parties or other political organizations can play.

Density of Labour Unions

Unions represent good examples for institutions that may foster turnout among the less educated citizens (e.g. members of the working class) while not influencing turnout rates of the highly educated at the same amount (Gallego forthcoming). Unions should serve as agents who socialize and mobilize their members politically. Another important function is to provide political information and orientation. Members can use the union position on political issues as heuristics that simplifies decision making. This may in fact influence the decision to turn out on election day. In this vein they increase turnout rates among their members. At the same time I do not suspect unions to depress turnout of highly educated non-members. Thus I suppose overall turnout to be positively affected by denser union membership.

H1 (Union Density): The denser the union membership in a country the lower the education gap and the higher overall turnout.

Clarity of Responsibility

If the act of voting imposes cognitive costs on potential voters institutional arrangements that influence those costs should significantly vary between more and less complex institutional settings. Different aspects of the political process are suspect to impact on electoral ease or difficulty defined in cognitive terms. The easier it is to identify the alternatives and consequences that are at stake the less costly and cognitively demanding the act of voting should be.

When citizens make up their minds whom to vote for one important question they have to answer concerns the responsibility for the current state of affairs in one's country. That is which party or candidate should they hold electorally accountable if a country is doing poor? Research on economic voting dedicated great effort to answering the question how voters attribute responsibility to political actors. Research suggests that clarity of responsibility has a moderating influence on economic voting. Clarity of responsibility is a widely used concept in the study of economic voting. The Powell Whitten Index (Powell /Whitten 1993) was the first attempt to measure clarity of institutional responsibility. The more transparent institutional responsibility is the better able are voters to hold incumbent parties or candidates accountable. Recently Hobolt et al. (2013) built on this research and made a distinction between institutional and government clarity of responsibility. This distinction is very useful because it captures the difference between static (e.g. institutional) and dynamic (e.g. government cohesion) aspects of the electoral cycle. To

test their claims empirically Hobolt et al. (2013) construct two indices each measuring one distinct dimension of clarity of responsibility. They show empirically that their index performs better than the original Whitten/Powell Index which blurs the two dimension and they also show that countries may perform equally high or low (e.g. Britain, Germany) but as well differently on the two dimensions (e.g. Latvia) which makes another point for separating them.

The argument for using a measure for the dynamic aspect of clarity of responsibility (government cohesion) with regard to educational voting differences is straightforward. If education impacts on voters' ability to deal with the complexity of the information environment, its impact must in turn vary with the level of this complexity. Thus I suspect clarity of responsibility to be a moderator of the relationship between education and turnout. In more transparent political settings where the distribution of power is more pronounced cognitive efforts should be lower compared to systems with very complex patterns of power resources. This in turn lowers the impact of formal education because the cognitive task does not require as much resources as in more complex electoral contexts.

This considerations lead to hypothesis 2:

H2 (Clarity of Responsibility): The clearer the responsibility that is the more centralized and transparent the distribution of power is, the lower the effect of education on turnout and the higher overall turnout.

Party system factors

The next group of macro-level features that is supposed to influence the education-turnout nexus is aspects of the party system of a country. According to the focus on a cognitive line of reasoning that links education and turnout I have to ask the following question: Which aspects of the party system are most visible? If education influences turnout via cognitive channels only those party system features affect voting behaviour that have at least some chance of being perceived by larger parts of the electorate. This is not to say that more stealthy features do not impact on turnout but probably not via this interpretative mechanism (Pierson 1993).

The supply side of electoral politics plays a more prominent role in theories of turnout than it did before. A number of studies deal with the richness of the ideological spectrum in an election and its impact on political choice (e.g. Caul Kittilson/Anderson 2011). The richer the choice environment the larger the mobilising effect. This argument goes beyond mere head counts of parties participating in an election as measured by various fragmentation indices (e.g. Laakso/Taagepera 1979). However, as Dalton and Anderson (2011: 14) put it "Thirty-one flavors of vanilla would not represent meaningful choice." Voters have to have a chance to

distinguish parties in ideological terms and be offered a meaningful choice set (Brockington 2008, Dahl 1971). In this section I give an argument for party system polarisation being a likely moderator of the relationship between education and turnout at the micro-level because it combines number and position of political parties and thus reflects two dimensions that affect political choice.

Party system polarisation

Several theories suggest that the number of parties and their dispersion along ideological dimensions (e.g. left-right) may influence turnout rates. Measures like the Effective number of parties and other fragmentation indexes have been used in the empirical analysis of turnout at the macro-level. Spatial theory suggests that ideological distance of parties and voters matter for turnout (Curini/Hino 2012). Parties are well aware of the ideological position and dispersion of the electorate and shift their locations accordingly. It is of course plausible to assume that parties act according to their voters positions. But at the same time a polarized party system offers a choice set that consists of clearer and more pronounced alternatives. This in turn can serve as an informational shortcut and renders effortful information search unnecessary. To underline this argument recent research suggests that party system polarization performs very prominently among the macro-level factors that constrain political choice at the micro-level (Anderson/Dalton 2011).

From another perspective more strongly polarized party systems indicate the existence of extreme left- or right-wing parties. These parties may also reduce turnout gaps by appealing to lower status (e.g. less educated) citizens (Rosenstone/Hansen 1993; Jusko 2011). One important question that is apparently unaddressed so far is whether political preferences are organized along an educational dimension e.g. if the highly educated hold different preferences than the lower educated. If education proxies social status such a claim seems plausible. First of all this is an empirical question and it may well be that we find cross-national variation with regard to such an educational cleavage (Bovens/Wille 2010). This has several reasons. The existence of pronounced educational cleavages is enhanced by the existence of extreme parties that advocate especially the lower and least educated. In some European countries extreme right-wing parties have begun to play this role (Bovens /Wille 2010). Polarization measures at least indirectly capture such effects.

The arguments made in this section provide the theoretical foundation for hypothesis 3:

H3 (Party System Polarisation Hypothesis): The more polarized the party system is the higher turnout and the lower the turnout gap.

Figure 2: Locating macro-level hypotheses and controlss in the typology

	effect on turnout level			
effect on turnout gap		+	0	-
	+			
	0	Proportional representation, Mixed Member System		Majoritarian representation
	-	clarity of Responsibility union density polarisation compulsory voting		

Control variables at the macro-level

In order to measure the effects of the variables of interest properly I control for several factors at the macro level that may bias the results if they were omitted. These are a dichotomous measure of the presence or absence of compulsory voting and trichotomous variable that indicates the type of electoral system (Majoritarian, Proportional, Mixed Member).

Figure 2 summarises the hypotheses as well as the expected effects of the controls concisely. Going back to the initially introduced typology of macro-level effects the hypotheses can now be located within the matrix.

The Data

Because my research has a European focus I use the European Social Survey (waves 1-5) as my main data source at the micro-level and combine it with macro-level data. An overview of the variables on the micro- and macro-level that are used in the analysis part and their sources are provided in the appendix. In the near future I will assemble a dataset that pools ESS and CSES data in order to maximize the number of cases which is necessary for more complex analyses. Unfortunately some macro-level indicators do not exist for all countries included in the ESS, e.g. for non-EU member states. This reduces the number of country-level observations, however, it is still at an acceptable level with around 70 observations.

Multi-level Regression Analysis: Results

This section puts the hypotheses to an empirical test. To deal with the hierarchical structure of the data multi-level modelling is employed. One purpose was to formulate models that are parsimonious in order not to over-control for macro-level factors. A stepwise modelling

procedure of increasing complexity was adopted (Hox 2010). The first part of the empirical analysis consists of multi-level regression models. These models should also serve as a starting point for more sophisticated path modelling which shall be employed in addition to conventional multi-level modelling in a future version of this paper.

To test the hypotheses formulated earlier a series of multi-level (mixed-effects) logit models was fitted. The results are displayed in tables 1 and 2. First of all, education always has a positive sign and is almost always statistically significant. The relationship seems to be robust under different and more complex model specifications. This is of course what was expected and has no further implications.

As stated earlier I distinguish between effects on overall turnout level and effects that influence the turnout gap between different educational groups. I begin by reviewing the level effects. Party system Polarisation seems to depress turnout. Its sign is always negative and this pattern holds for different model specifications. This is not exactly what was expected but maybe more polarized countries exert confusing influence on voters because they tend to have more parties which in turn can make choice more difficult. Future analyses will thus include a measure for the number of parties. This may be evidence for the existence and empirical distinctness of two contextual dimensions that Anderson and Dalton (2011) identified: clarity of choice and amount of choice.

Clarity of responsibility has hardly any significant main effect. Nevertheless its sign points in the expected direction but of course this alone does not satisfy interpreting the effects substantially. The hypothesis concerning its effect on the turnout level cannot be confirmed in the light of the empirical results.

Union density also never exceeds the threshold of statistical significance in substantial way and even when it does the effects are negligibly small. The hypothesis has to be dropped.

With regard to the effects on the participation gap the cross-level interactions are of particular interest. Looking at the results the image we get is mixed with regard to our hypotheses. Most noteworthy, the significant positive interaction of education and party system polarisation seems to be robust across a variety of different model specifications. The more polarized a party system is the stronger the impact of education on turnout at the micro-level. Or put differently, polarisation seems to foster turnout among voters with higher levels of education. Polarisation thus contributes to unequal turnout.

Clarity of responsibility and education show a negative cross-level interaction. This can be interpreted as first evidence that clear cut distribution of political power diminishes the role education plays for turning out. Model 11 uses education dummies to tap a potential differential effect of macro-level factors on citizens with high and low education. The findings underline the first suspicion that clarity of responsibility impacts differently on different educational groups. Clarity of responsibility seems to impact differently on different educational groups. It fosters turnout among the low-educated citizens and depresses turnout among the high-educated. The relationships are both highly significant. Clarity of responsibility seems to impact on the turnout gap in a diminishing way. It therefore combines a negative and a positive effect by diminishing turnout level and turnout gap. Figure 3 summarizes the hypothesis and contrasts them with the empirical findings.

Figure 3: Hypotheses and empirical results compared.

	effect on turnout level			
effect on turnout gap		+	0	-
	+	clarity of responsibility (hypothesis)		polarisation (empirically)
	0		clarity of responsibility (empirically) union density (empirically)	
	-	polarisation (hypothesis) union density (hypothesis)		

Table 1: Education and Turnout: Random Intercept Models

Individual level	Model 1 Indivual level variables	Model 2 Individual level + context	Model 3 Individual level + context	Model 4 Individual level + context	Model 5 Individual level + context + interaction
Education	0.048***	0.046***	0.047***	0.002	0.026***
	[0.00]	[0.00]	[0.00]	[0.00]	[0.01]
Age	0.032***	0.033***	0.033***	0.033***	0.033***
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Age^2	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Gender	0.001	-0.003	-0.001	-0.000	-0.000
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Country level					
Compulsory Voting		0.073**	0.075	0.040	0.039
		[0.03]	[0.04]	[0.04]	[0.04]
Prop. Rep		0.041	0.074**	0.040	0.041
		[0.03]	[0.03]	[0.03]	[0.03]
Mixed Member		0.033	0.088*	0.050	0.047
		[0.04]	[0.04]	[0.04]	[0.04]
Clarity of Responsibility		-0.163***	0.021	-0.057	0.059
		[0.05]	[0.06]	[0.06]	[0.06]
Polarisation			-0.017	-0.043***	-0.040***
			[0.01]	[0.01]	[0.01]
Union Density				0.001	0.000
				[0.00]	[0.00]
Cross-level Interactions					
Education*Polarisation				0.013***	0.013***
				[0.00]	[0.00]
Education*Union Density				0.000	0.000**
				[0.00]	[0.00]
Education*Clarity of Resp.					-0.038***
					[0.00]
Constant	-0.313***	-0.257***	-0.345***	-0.226***	-0.296***
	[0.02]	[0.04]	[0.05]	[0.05]	[0.05]
SD Constant	0.105***	0.075***	0.06***	0.054***	0.054***
N	119380	100072	76090	72511	72511

* p<0.05 ** p<0.01 *** p<0.001

Notes: Multi-level logit regression.

Table 2: Education and Turnout: Random Intercept-Random Slope Models

	Model 6 Indivual level variables	Model 7 Individual level + context	Model 8 Individual level +context	Model 9 Individual level + context	Model 10 Cross-level interaction	Model 11 Education dummies
Education	0.052***	0.050***	0.051***	0.004	0.022***	0.102***
	[0.00]	[0.00]	[0.00]	[0.01]	[0.01]	[0.01]
Age	0.032***	0.032***	0.032***	0.033***	0.033***	0.032***
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Age^2	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Gender	-0.00	-0.005*	-0.003	-0.002	-0.002	-0.004
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Country level						
Compulsory Voting		0.11**	0.034	0.02	0.0239	0.033
		[0.04]	[0.06]	[0.06]	[0.06]	[0.07]
Prop. Rep.		-0.001	0.071	0.041	0.043	0.043
		[0.05]	[0.04]	[0.05]	[0.05]	[0.05]
Mixed Member		-0.094	-0.021	-0.030	-0.026	-0.039
		[0.06]	[0.05]	[0.06]	[0.05]	[0.06]
Clarity of Respons.		-0.132	0.043	0.004	0.023	-0.114
		[0.07]	[0.08]	[0.09]	[0.09]	[0.11]
Polarisation			-0.036*	-0.036*	-0.036*	-0.037*
			[0.01]	[0.02]	[0.02]	
Union Density				0.000	0.000	0.000
				[0.00]	[0.00]	[0.02]
Cross-level Interaction						
Education*Polarisation				0.014***	0.015***	
				[0.00]	[0.00]	
Education*Union Density				0.00	0.000	
				[0.00]	[0.00]	
Education*Clarity of Resp.					-0.042***	
					[0.01]	
CoR*low education						0.143***
						[0.02]
CoR*high education						-0.110***
						[0.03]
Pol.*low education						-0.001
						[0.00]
Pol.*high Education						-0.019***
						[0.00]
Constant	-0.309***	-0.227***	-0.255***	-0.254***	-0.265***	-0.291***
	[0.02]	[0.06]	[0.07]	[0.07]	[0.07]	[0.08]
SD Intercept	0.11***	0.083**	0.083***	0.08***	0.083***	0.082***
SD Slope education	0.023***	0.023***	0.016***	0.016***	0.013***	0.013***
N	119380	100072	76090	72511	72511	72511
* p<0.05	** p<0.01	*** p<0.001				

Notes: Mixed-effects logit regression.

Conclusion

The main purpose of this paper was to investigate into the nature of context dependent effects of education on turnout in European countries. How do different aspects at the level of the political system moderate this relationship at the micro-level? The empirical evidence is mixed. First of all and not surprisingly given the existing literature macro-level factors do moderate the education-turnout nexus at the micro-level. Party system polarisation and clarity of responsibility shape the relationship between turnout and education at the micro-level. However, those two variables exert their influences in different ways. Clarity of responsibility seems to attenuate participatory inequality. From a normative point of view this is a desirable effect.

Looking at the results party system polarisation works in the opposite direction. It depresses overall turnout and increases the gap between the low and the high-educated. This effect is normatively least desirable because it represents a combination of two negative effects.

For the sake of completeness union density does not seem to play a role at all. That is surprising given the literature that emphasises the mobilising potential unions can have. Maybe a more sophisticated measure is needed to tap these effects.

The findings suggest that cognitive or interpretative mechanism is at work. Education seems to play a role when people make up their minds before an election. Macro level factors in turn can either enhance or diminish the cognitive effort that is necessary to make sense of the information environment that is part of a particular election. Polarisation and clarity of responsibility are examples of such moderators.

Unfortunately the lessons learned do not allow for easy political advice. Party system polarisation is a genuine and path-dependent feature of a political system and it is hardly possible to try to change it in European democracies. Clarity of responsibility on the other hand is bit different. If politics try to reform party of the institutional system with the aim of generating highly transparent institutions that make the attribution of power and responsibility easier this may in fact lead to more equal turnout.

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Appendix

Macro Data and their Sources

Party System Polarisation	Dalton 2008; Curini/Hino 2012
Clarity of Responsibility	Hobolt et al. 2013
Union_Density	OECD
Compulsory Voting	IDEA Database

Variables: Coding and Descriptives

Variable	**Coding**	**Mean**	**SD**	**MIN**	**MAX**
Education	5 categories (primary or less to tertiary)	3.03	1.33	1	5
Age	Respondents age in years	47.52	18.46	15	123
Gender	1=male, 0 = female	-	-	-	-
Party system polarisation	Continuous	3.50	1.06	2.039	5.70
Clarity of Responsibility	Continuous between 0 and 1	.58	.22	.16	1
Union_Density	Continuous	30.29	19.39	5.796	99.06
Compulsory Voting	1 = yes, 0 = no	-	-	-	-
Electoral System	1 = Majoritarian, 2 = Proportional, 3 = Mixed Member	-	-	-	-