

Who supports minority rights in popular votes? Empirical evidence from Switzerland



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ABSTRACT

Recent research shows that well-educated citizens are more supportive of minority rights in direct democratic votes than people with less education. This article however suggests that educational effects on minority rights only emerge under certain conditions. A Bayesian multilevel analysis of 39 referendums and initiatives on minority rights in Switzerland (1981–2009) shows that educational effects are particularly strong when the rights of lesser-known cultural minorities are to be extended. They are entirely absent, however, when referenda address the curtailment of rights for well-known minority groups.

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When scholars study direct democracy and minority rights, they generally wish to know whether minority rights fare better in representative or in direct democratic systems¹ (Bochsler and Hug, 2009; Bowler et al., 2006; Bowler and Donovan, 1998; Donovan and Bowler, 1998; Frey and Goette, 1998; Gamble, 1997; Haider-Markel et al., 2007; Haider-Markel and Meier, 1996; Hajnal et al., 2002; Matsusaka, 2007; Nicholson-Crotty, 2006; Schaub, 2012; Tolbert and Hero, 1996). The overall results of these studies suggest that there is not a single answer to this question. One reason for these ambiguous results, we argue, is that direct democracy involves very different mechanisms, some of which may curtail minority rights, while others could be conducive to generous minority

rights. A broad and encompassing assessment of whether minorities find more advantageous conditions in direct or representative democracies may, at this stage in the research, be overly ambitious. We instead argue that it is important to first ask who supports minority rights in popular votes and under which conditions, and this is precisely what we aim to do in this article.

Donovan and Bowler (1998), Haider-Markel et al. (2007) and Vatter (2011) all conclude that education is a key variable in understanding voting behaviour regarding minority rights: The higher an individual's level of education, or the greater the share of highly educated citizens in a district, the greater the likelihood of a pro-minority vote. A similar pattern can be found in research on opinions about minorities. Weldon (2006) and Bobo and Licari (1989) show that political (and social) tolerance increase with higher education.² According to Sniderman and

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² The findings regarding educational effects on political tolerance are somewhat ambiguous. While the literature on the United States quite consistently shows a positive relationship (Bobo and Licari, 1989), the findings for European countries are mixed (Duch and Gibson, 1992: 252; see also Weldon, 2006).

Hagendoorn (2007: 106), highly educated individuals are less likely to perceive minority groups as a cultural threat, and de Figueiredo and Elkins (2003) find that education decreases xenophobia.

What these studies have in common is an assumption that educational effects are constant across different votes and ballot proposals. This assumption, however, does not seem to be plausible. Bolliger (2007), for instance, points out that the historically rooted linguistic minorities in Switzerland (French, Italian, Raeto-Roman) are well integrated and accepted by the vast majority of the German speaking majority. It is therefore difficult to understand why better-educated, tolerant Swiss-Germans should be more supportive of these minorities than others. Bolliger (2007), for example, finds hardly any discriminatory effect on these minorities in direct democratic legislation.

We therefore theoretically and empirically analyze in how far and under which circumstances an individual's educational level influence voting behaviour on minority rights. In particular, we expect the influence of education to vary according to specific characteristics of the proposal to be voted upon. We focus on two such characteristics: the target group (an in-group or an out-group) and the direction of a bill (i.e. whether it aims to extend or limit minority rights).

In sum, this study goes beyond previous research in three aspects. First, the article does not focus on the general question of whether outcomes of direct democratic votes protect minority rights. Instead, we focus on the *input side* of direct democracy in order to understand who favours minority rights on the ballot and under which conditions. Knowing more about the decision-making process and its conditionalities will reveal important insights into understanding its varying outcomes. Second, we add to existing work on the correlation between education and tolerance. While most studies focus on attitudes and values regarding minorities (e.g., Bobo and Licari, 1989; de Figueiredo and Elkins, 2003; Helbling and Kriesi, 2013; Sniderman and Hagendoorn, 2007; Weldon, 2006), we analyze a *behavioural dimension of tolerance*, i.e. whether individuals cast a vote in favour of minority rights. Moreover, we further develop the general relationship between education and tolerant behaviour by theoretically and empirically demonstrating that educational effects vary depending on the characteristics of the ballot initiative. Third, the empirical test of the hypotheses advanced in this paper will be conducted on the basis of data on popular votes in Switzerland and therefore adds to existing work that tends to narrowly focus on the United States. In this respect, the study follows the most important demands of previous studies in that future research should not only continue to explore these issues in the US states but also expand this research to other countries with direct democratic institutions (Haider-Merkel et al., 2007: 313).

The article is structured as follows. The subsequent section presents the theoretical framework and the hypotheses we derive from it. Next, the data and cases as well as the research design and method are introduced. The fourth section presents the empirical test of the hypotheses

and discusses the central findings. The article ends with a summary of the most important results and some concluding remarks.

1. Theoretical framework

Several studies have identified education as a key variable in understanding voting behaviour on minority rights (Anderson and Goodyear-Grant, 2010; Donovan and Bowler, 1998; Haider-Merkel et al., 2007; Vatter, 2011). But what is it about education that leads to pro-minority voting behaviour? And can we expect education to play an identical role across very different ballot contexts?

Based on previous studies we initially suggest two mechanisms through which higher education may increase the propensity to vote in favour of minority rights. Before doing so, however, we first need to characterize what is meant by “pro-minority voting behaviour”. We argue that the distinctiveness of voting on minority rights results from the fact that a pro-minority vote necessitates a certain degree of altruism. More precisely and given the “winner-take-all nature” of direct democratic votes (Hajnal et al., 2002: 155), the majority of voters needs to accept rules that, while advantageous for some, may even have negative consequences for themselves. This description aligns quite well to the conception of tolerant behaviour: According to Sullivan et al. (1999: 784) “one is tolerant to the extent one is prepared to extend freedoms to those whose ideas one rejects, whatever these might be”. The following theoretical discussion thus builds on the assumption that tolerant voters will have a higher propensity to accept ballot proposals in favour of minority rights than less tolerant voters.

Based on previous research we argue that a lack of tolerance, i.e. intolerance towards minorities, has two main sources: intolerance arises from the fear that a minority group (1) will threaten core values in a society or (2) endangers the economic situation (Gibson, 1992: 569; Freitag and Rapp, 2013: 3; Stouffer, 1955; Sullivan et al., 1993: 78–79). Related to these two sources of intolerance, we propose two mechanisms through which an individual's educational background may affect her propensity support ballot measures in favour of minority rights:

- (1) The first mechanism is based on *group-specific value patterns*. It has often been argued that education increases one's awareness of societal problems and empathy, which increases the likelihood of getting involved on the behalf of others (Wilson, 2000: 220). Accordingly and in relation to minorities, these particular value patterns may be conducive to tolerance towards minorities, i.e. reduce the fear of a value-related threat and thus increase the probability of pro-minority voting behaviour. In fact, several studies have shown that political (and social) tolerance increase with higher education (Giugni and Morariu, 2010; Weldon, 2006; Bobo and Licari,

1989). There are various theoretical explanations for the link between tolerance and education. First and most importantly, Sniderman and Hagendoorn (2007: 106) show that highly educated individuals are less likely to view minority groups as a cultural threat; de Figueiredo and Elkins (2003) find that education decreases xenophobia. More generally, McClosky (1964) maintains that democratic principles are complex ideas requiring considerable education and social learning before they can be applied. Accordingly, Prothro and Grigg (1960) show that while support for abstract democratic principles (equal rights being among them) is generally very high and not directly related to education, the application and implementation of these principles to concrete situations, i.e. in a ballot proposal, is more consistent among the highly educated. In this vein, education can foster the necessary cognitive skills, cultural knowledge and cognitive flexibility (Nunn et al., 1978). Hyman et al. (1978) argue that education not only enhances knowledge but also openness to new information. In sum, education can be expected to increase tolerance. As a consequence, those with higher levels of education should be more likely to grant political and social rights to groups they dislike than.³

- (2) Second, education can be hypothesized to affect individual voting behaviour on minority rights due to group-specific (actual or perceived) *economic threats*. According to this mechanism, individuals will be more reluctant to grant rights to minorities (on the ballot) when the fear of negative consequences is more pronounced. This argument follows the research on attitudes towards immigrant minorities, which generally presents educational effects in economic terms. It is argued that immigrants tend to be relatively less educated and thus pose an economic threat to less educated citizens since they would compete for the same jobs. Less educated citizens therefore have a more restrictive view on immigration policy than well-educated citizens (Sniderman and Hagendoorn, 2007: 79; Hooghe and Marks, 2005: 421). Hello et al. (2006) argue that this economic effect is actually much stronger in explaining the educational difference regarding negative prejudices than cultural aspects such as open-mindedness or cognitive sophistication. Halperin et al. (2007) confirm this conclusion by showing that economic threat is the main factor moderating educational effects on

attitudes towards minorities. In conclusion, we can therefore expect that highly educated voters will be more willing to accept minority rights than less educated citizens.

Based on both the value-related and the economic mechanisms, we therefore derive our first hypothesis:

H1. Higher levels of education increase the likelihood that an individual will vote in favour of minority rights on the ballot.

While the discussion above supports our hypothesis that high education will be conducive to support for minority rights, recent research on Switzerland suggests that the relationships are in fact more complex (Helbling and Kriesi, 2013; Ruedin, 2013). To take the economic threat argument as an example, Helbling and Kriesi (2013) argue and empirically show that the economic mechanism on attitudes towards immigrants is conditional on other factors. First, intolerance not only depends on respondents' educational level but also on the characteristics of the minority group, e.g., less educated citizens will not oppose a highly skilled minority group because such a group will not be competing with these citizens in the labour market. Second, attitudes towards a minority may vary depending on context. For example, resentment towards minorities will mainly occur when economic conditions are bad or if one views his or her own economic situation to be on the decline. Overall, Helbling and Kriesi (2013: 24) conclude that "certain explanatory factors only hold for certain people in certain contexts". Considering these findings, we argue that voting on minority rights and, in particular, the importance of education will vary depending on the *characteristics of the ballot proposal*.

Following Helbling and Kriesi's (2013) argument, educational effects can first be expected to vary depending on the *target group* of a ballot initiative. Tolerance is usually defined as putting up with groups one dislikes (Sullivan et al., 1999). Stating that poorly educated citizens are less tolerant therefore means that they are less willing to put up with disliked groups than highly educated citizens. In situations where a poorly educated, intolerant citizen is asked to vote on the rights of a minority he or she is ambivalent towards, the probability of casting a pro-minority vote can be expected to increase significantly. As a consequence, the voting behaviour of both the better educated and less educated may be quite similar when they both like or are ambivalent towards the minority group.

Theoretically, and in accordance with the discussion above, it can be argued that whether or not one dislikes a group depends, among other things, on whether perceptions of cultural and economic threat (Freitag and Rapp, 2013: 3) exist with regard to that group. If a minority group is culturally similar and/or shares the same basic values and norms as the majority, intolerance due to the cultural threat argument should be much lower than would be the case for a minority group with a very different cultural background, norms and values.

³ It is worth mentioning that ballot measures provide a particularly advantageous context to test such education-related value and behaviour patterns. In fact, it could be argued that differing preferences towards minorities found in surveys may only be the results of social desirability effects. However, as ballot measures directly and anonymously ask for citizens' choices, real preferences can be observed (Bornstein and Lanz 2008: 431). In other words, ballot proposals on minority rights often have immediate consequences on rules, procedures and policies in "real life". Voters, by secretly and anonymously casting a vote, have no rational interest in concealing their true preferences.

Accordingly, in the former situation the value-based mechanism should matter less and educational differences in voting behaviour are therefore expected to be smaller. Similarly, not all minority groups will be equally perceived as an economic threat. The economic mechanism discussed above is thus less likely to play a role for women, homosexuals or the disabled than for foreign workers. It is reasonable to assume that intolerance, and thus education, will be a stronger moderator of voting behaviour regarding the latter group than with regards to the former.

Overall, the target group of a ballot in initiative is expected to moderate the relationship between education and voting on minority rights. If the target group poses a potential cultural and economic threat to the majority (“out-group”), well-educated citizens – due to the value-related and economic arguments discussed above – are expected to be more likely to vote in favour of the target group’s rights than less educated citizens. By contrast, educational effects should matter less if a measure targets a group that generally is not perceived negatively by the citizenry for value-related or economic reasons (“in-group”).⁴ Thus, the second hypothesis to be tested is:

H2. Educational effects on voting behaviour are stronger when the rights of out-group rather than in-group minorities are at stake.

Moreover, and apart from different target group characteristics, the substantial aim of the proposal may also moderate the educational effect. Most importantly, different mechanisms can be expected to depend on whether a bill suggests *expanding or limiting minority rights*. On the one hand, extending minority rights is somewhat ground-breaking. Accepting a proposal to grant new or more far-reaching rights to a minority is literally what we defined above as an altruistic and probably tolerant act: the majority of voters needs to accept rules, which, while advantageous for the minority, may be disadvantageous for the majority. Hence, when hypothesizing voting behaviour on such ballot proposals, the value-related and economic mechanisms need to be taken into account and educational effects thus should be of importance.

On the other hand, the context is quite different if a ballot proposal aims to limit or even abolish certain minority rights. In this case, a vote in favour of the minority actually stands for the status quo, i.e. the maintenance of the current rights this group enjoys. Given that voters generally tend towards the status quo in direct democratic decisions (see for instance [Linder, 2010: 104–106](#)), voting in favour of the status quo requires much less altruistic and tolerant behaviour. Moreover, it can be argued that intolerance towards minorities is rooted in a lack of experience and

knowledge, which fuels perceived cultural threats (see [Allport, 1954](#)). Based on this view, the value-based mechanism will be of less importance regarding the maintenance of minority rights, since citizens have had the possibility to experience the status quo, i.e. the current state of minority rights. This kind of pro-minority voting is likely to be less dependent on high levels of cognitive skills (see [Nunn et al., 1978](#)).

From this discussion, we propose the following third hypothesis⁵:

H3. Educational effects are stronger when the ballot measure aims to extend, and not limit, minority rights.

In sum, the strongest educational effects are therefore hypothesized to be present when a ballot measure seeks to expand the rights of out-group minorities, whereas the effects are expected to be weakest when the rights of in-group minorities are to be curtailed.

2. Data and case selection

Switzerland provides an excellent setting for studying minority rights in the context of direct democracy. First, Switzerland has held more initiatives and referendums than all other countries combined since the emergence of the modern nation-state. In fact, no other state in the world even comes close to Switzerland in applying direct democracy to political issues at the national level ([Kriesi, 2005](#); [Linder, 2010](#); [Vatter, 2014](#)). Second, very few empirical studies have examined the consequences of direct democracy on minority rights in Switzerland ([Bolliger, 2007](#); [Frey and Goette, 1998](#); [Vatter and Danaci, 2010](#)). In this respect, our research on the impact of initiatives and referendums on minorities in Switzerland responds to the important demand found in previous studies that “future research should continue to explore these issues in the American context as well as in other countries with direct democratic processes” ([Haider-Markel et al., 2007: 313](#)). Third, unlike in the United States, Switzerland features direct democratic instruments not only at the state but also at the national level, thereby enabling the study of policy areas that generally are not addressed at the subnational level. Fourth and probably most importantly, in contrast to the United States, the Swiss database on referendum voting behaviour is systematic and expansive and thus allows us to perform thorough tests of our hypotheses. Regarding individual data, the nation-wide representative VOX surveys have been conducted after almost every initiative or referendum at the national level since the beginning of the 1980s. The data set at our disposal covers nearly all popular votes from 1981 to 2009 and provides us with a unique opportunity to analyze voting behaviour with respect to minority rights. After each referendum or initiative,

⁴ In social psychology, the terms in- and out-groups denominate cognitive categories an individual develops with respect to social groups. Here, in- and out-groups represent the aggregate of the individual degrees of identity with a given group.

⁵ This assumption is empirically supported. In an aggregate analysis of 193 initiatives and referendums on minority rights at the national and sub-national level in Switzerland, [Vatter and Danaci \(2010\)](#) find that of the 29 bills that aimed to restrict minority rights, only two were accepted by the voters. The share of rejected projects that intended to extend minority rights is much higher.

approximately 1000 respondents are surveyed. Following our research question, however, we only integrate those respondents who indicated having participated in the vote.⁶

Our definition of minority is based on [Berbrier's \(2002\)](#), which encompasses both classical minorities (ethnic, religious, and linguistic) as well as minorities in the tradition of civil rights movements (homosexuals, disabled persons, and women).⁷ Drawing on this definition of minority rights, we end up with 39 ballot propositions that were identified to affect the rights of various minority groups in fundamental ways: ethnic minorities (foreigners, asylum seekers, Muslims⁸), women, disabled persons, homosexuals, and the smallest historical linguistic minority living in Switzerland (Raeto-Romans). A list of all selected popular votes can be found in the [appendix \(Table A\)](#).⁹

3. Variables and measurement

The dependent variable distinguishes between those who voted in favour of (1) and those who voted against (0) minority rights. If a ballot proposal aims at abolishing or limiting minority rights, No-votes (i.e. against abolishing/limiting rights) were recoded to (1), while accepting the proposal indicates voting against minority rights (0). Overall, (1) stands for extending/maintaining minority rights, whereas (0) captures voters who were against the expansion of or were in favour of abolishing minority rights.

⁶ Alternatives to excluding respondents who did not vote would entail a multiple imputation procedure or a selection model in which participation and abstention is explicitly modelled. We however refrain from such procedures for the following reasons. First and foremost, we argue that non-participation is a systematic and “real” type of political behaviour. Non-participating respondents should therefore not simply be treated as “missings” and be imputed as if they had participated. Second, we do not have theoretical arguments as to why the exclusion of abstention should bias our results on voting behaviour. Finally, the choice between selection models and the focus on those who voted is a matter of research interest. By focussing on respondents who participated we have chosen a design which best corresponds to our research question: Who – among those who participate – votes in favour of minority rights and under which conditions? If one wants to understand the dynamics of a direct democratic vote we think this is the most realistic design (since in reality there will always be some who do not participate). In so doing and in terms of policy implications, we are able to gain insights into how the formulation of a proposal or perhaps even the campaign and official communication could be organized in order to increase or decrease a proposal's chances of success on the ballot. A selection model, by contrast, would focus more on the *hypothetical* situation, i.e. if abstention is controlled for, who would vote in favour of minority rights? Such an approach could be particularly helpful to identify groups to be mobilized for or against a proposal.

⁷ According to [Berbrier \(2002\)](#), women also can be considered as a minority, since in the past – and to some extent today – they have been dominated by men in the social, economic, and political arenas. This specifically concerns women's political rights in Switzerland, where female suffrage was introduced in 1971 on the national level and as late as 1990 on the cantonal level (Canton of Appenzell Inner Rhoden), i.e. within the time period covered by our analysis.

⁸ Labelling Muslims as an ethnic minority is a practice also supported by [Helbling \(2010\)](#), who finds that the Swiss do not perceive them as a religious group.

⁹ Please note that we included only ballot propositions on minorities that addressed question of fundamental rights and not those that covered tangential issues (see [Haider-Markel et al., 2007: 312](#)).

Our central independent variable at the individual level is *education*. Unlike in many US surveys, the respondents in the VOX surveys are not asked how many years they spent in formal education, but rather are asked to indicate their highest educational level achieved. We therefore use a dummy variable for measuring education, distinguishing between those who attended university and those who did not. Correspondingly, our indicator of education is in line with recent studies working with Swiss data that used an identical operationalization ([Helbling, 2011; Helbling and Stojanovic, 2011](#)). It is also in accordance with the measures of education in US studies on the same topic ([Haider-Markel et al., 2007; Hajnal et al., 2002](#)).

The crucial independent variables with regard to the votes are the *distinction between in- and out-groups* as well as between proposals aimed at *extending or abolishing minority rights*. The former is a rather difficult concept to measure. In accordance with our theoretical framework and in view of our empirical cases, we distinguish between minorities that may be perceived as both a cultural and economic threat (1) and all others (0). By applying this criterion we basically distinguish between ethnic (1) and non-ethnic (“old” Swiss linguistic minorities, women, homosexuals, disabled persons) minorities (0). It is of course debatable whether this operationalization perfectly captures this dichotomy. We however think that this rather simple distinction best illustrates the main dimension of the target group as discussed in the theoretical section. Ethnic minorities, in contrast to all other minority groups, are frequently perceived as culturally different and as a potential threat to Swiss values and norms – something which has recently been the topic of political and public debates in Switzerland. Similarly, and in the context of European integration and the free movement of workers within the EU, economic threats particularly have been pertinent with respect to ethnic minorities. By contrast, similar public debate (i.e. one combining value-related and economic fears) has rarely taken place regarding the other minority groups which have been the subject of ballot proposals in our sample. In particular, these groups are all minorities *within* Swiss society (all being Swiss nationals) and are perceived as part of it. This view is supported by [Kriesi and Trechsel \(2008: 11\)](#), who find that the concepts of nation and culture are closely related in Switzerland.

The second macro-level indicator takes the value of (1) for proposals aimed at expanding minority rights and (0) for proposals that would limit minority rights.

Regarding the control variables at the individual level, we are rather limited in our options since many of the variables included in the current VOX surveys do not correspond to the variables included during the 1980s and the early 1990s. We therefore will also analyze sub-samples of more recent cases with more controls in order to test the robustness of our results. For the entire sample, we control for gender ([Betz, 1994: 100–101; Fetzter, 2000: 7–8; Giugni and Morariu, 2010: 85; Vollebergh et al., 1999; Golebiowska, 1999](#)), age ([Giugni and Morariu, 2010: 85; Weldon, 2006: 343](#)), language ([Giugni and Morariu, 2010: 85; Kriesi, 2005](#)), political awareness ([Golebiowska, 1999:](#)

47), and party identification (Milic, 2008: 110). We include two dummy variables for language,¹⁰ one for French and one for Italian. The reference category is Swiss-German. Political awareness is measured by asking the respondents to mention the title as well as the content of a given bill. We build a three-category indicator: Respondents who know both the title and content of a proposal are considered to have high political awareness (3); those who remember neither title nor content exhibit low political awareness (1); and respondents who know either title or the content are assigned to the middle (reference) category (2). With respect to party identification, respondents are assigned the value of (1) if (s)he identifies with a party that had recommended opposing the minority rights on the ballot; a value of (0) indicates that the respondent does not identify with such a party. We therefore control for the cues that can play an important role in voting behaviour (Lupia, 1994).

For the sub-samples, we additionally include perceptions of one's individual economic situation (Sniderman and Hagendoorn, 2007), as measured by an indicator ranging from very bad (0) to very good (4), with three intermediate positions. Expectations about the one's future economic situation are measured by an indicator ranging from getting worse (0) to better (2), with (1) indicating that the respondent's situation will remain unchanged.

At the level of proposals, as control variable we include the distinction between the different types of direct democratic instruments, namely between referenda and initiatives. We refrain from further distinguishing between optional and mandatory referenda for several reasons. First, while Kriesi (2005: 64) could show that the level of support for an optional referendum is lower than for a compulsory one, in our sample we do not find a relevant difference between these two types. According to the official ballot results, support for minority rights varies only slightly between optional (57.4%) and mandatory (55.9%) referenda, while the main and substantial difference is found with respect to initiatives (35.8%). Second, only six of the proposals analyzed concerned mandatory referenda, which led to convergence problems in further analyses not presented here.

We moreover model an interaction between the type of direct democratic instrument and whether a proposal aims at extending or curtailing minority rights. This is due mainly to our coding of the depending variable, which captures voting in favour of or against minority rights. When it comes to popular initiatives, which generally have low chances of being accepted, the probability of a pro-minority vote structurally varies depending on whether an initiative seeks to extend or restrict minority rights. In the former case, a pro-minority vote will be particularly unlikely, as this would substantially mean accepting a typically far-reaching proposal (a common characteristic of popular initiatives) to extend minority rights. By contrast, if an initiative seeks to do away with existing rights, a pro-minority vote corresponds to the maintenance of the

status quo and is therefore much less demanding in terms of altruistic or tolerant behaviour.

Further information of the coding of the variables, descriptive statistics, and sources can be found in Table B in the appendix.

4. Research design

As individuals are nested within different participatory contexts, i.e. different ballot proposals, random intercept and random slope models are applied (Steenbergen and Jones, 2002). Because the dependent variable is dichotomous, individual participation is transformed to a logit structure. Using the latent-response formulation, the logistic two-level model with cross-level interactions (see Rabe-Hesketh and Skrondal, 2008: 247) is as follows¹¹:

$$y_{ij}^* = \gamma_{00} + \gamma_{01}z_j + \gamma_{10}x_{ij} + \gamma_{11}x_{ij}z_j + U_{0j}x_{ij} + U_{0j} + R_{ij}$$

where y_{ij}^* is the latent continuous dependent variable underlying the dichotomous response for individual i in cluster j (ibid: 238), z_j is a macro-level variable, and x_{ij} is an individual-level variable. The γ 's represent the average intercept and coefficients; U_{0j} is the deviation of the intercept of cluster j from the average intercept; U_{1j} is the deviation of a cluster-specific coefficient of the individual variable from the coefficients' average; and R_{ij} is the residual of individual i in cluster j . To test the robustness of the results we additionally employed individual data analysis of the five most recent bills allowing for controlling for perceptions of the individual economic situation. The latent-response formulation of the logit model is as follows¹²:

$$y^* = \gamma_0 + \gamma_1 x + R$$

A Bayesian estimation approach is used, which has shown to perform better than maximum likelihood, particularly when employing logistic multilevel models faced with a small number of level 2 units (Browne and Draper, 2006; Stegmüller, 2013). For an easy interpretation of the Bayesian estimation results, the mean and the standard deviation of the posterior distribution are provided, which can be interpreted as in a standard regression situation: the mean is the average effect of an independent variable on the outcome variable, and the standard deviation gives a sense of the statistical reliability of this estimate.¹³

¹¹ The assumptions about the errors are: $U_{0j} \sim N(0, \sigma_0^2)$, $U_{1j} \sim N(0, \sigma_1^2)$, $R_{ij} \sim F(0, \pi^2/3)$.

¹² $R \sim F(0, \pi^2)$.

¹³ A fully Bayesian analysis requires the specification of priors for the unknown parameters. We used non-informative normal priors $\sim N(0, 10^8)$ for the fixed effect parameters and inverse Wishart priors $\sim W^{-1}(2, 2)$ for the variance component. All models have been estimated in R using the package MCMCglmm (Hadfield, 2010). We let the respective models run for 500,000 (Model 1) and 600,000 (Models 2 and 3) iterations, with a respective burn-in of 300,000 (Model 1) and 400,000 (Models 2 and 3) and a thinning of 50. Extensive diagnostics based on the graphical inspection of the trajectories and the autocorrelations as well as on Geweke and Heidelberg diagnostics lead to the conclusion that the chains have mixed well and converged. Moreover, slightly different prior specifications have not changed the results as presented in the article. More detailed information on the model specification, the tests of sensitivity and the convergence diagnostics can be obtained upon request.

¹⁰ There are three major language regions in Switzerland: Swiss-German, French, and Italian.

5. Empirical results

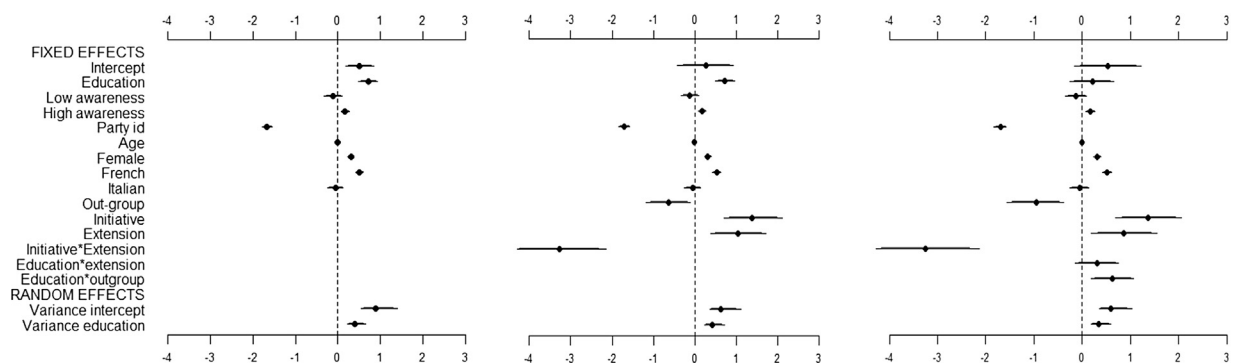
Fig. 1 presents the baseline model (model 1). Except for low political awareness and speaking Italian, the 95 per cent credible intervals of all the micro-level posterior means are either below or above zero, that is, higher education, high political awareness, being female and young, and speaking French instead of Swiss-German increase the probability of voting in favour of minority rights. By contrast, identifying with a party opposing minority rights has strong negative effects. The positive effect of being female is in line with [Betz \(1994: 100–101\)](#) and [Fetzer \(2000: 7–8\)](#) who claim that women are characterized by a comparatively high level of outsider-solidarity due to their own experience with various sorts of discrimination. It is also worth mentioning that a considerable share of our proposals under investigation actually target women's rights.

Turning to the variance components, we see that educational effects as well as the intercept are very likely to vary between ballot proposals. We expect that at least a part of this variance can be explained by the characteristics of the vote. Model 2 therefore also includes the context level variables, all of which feature a credible coefficient. When a bill targets out-groups, the probability of voting against minority rights is higher than when in-groups are targeted. The interpretation of the remaining three coefficients is more complicated (see [Brambor et al., 2005](#)). Compared to a referendum, an initiative increases the probability of a pro-minority vote when a bill seeks to curtail minority rights. When rights are to be extended, however, initiatives foster anti-minority votes, i.e. voting in favour of minorities is more probable when rights are to be limited rather than expanded. As discussed in the measurement section, these differences can be explained by the fact that voting in favour of minority rights is structurally different between initiatives and referenda, but mainly also between initiatives extending or curtailing these rights. Somewhat surprisingly and in contrast to our expectations, the probability of a pro-minority vote in referenda is higher

when minority rights are to be extended. This relationship can however be explained by the particular content of the majority of these bills: 8 out of 15 of these proposals addressed women, homosexuals, and disabled persons, which – in the period under investigation – clearly represented “in-groups” and often obtained high acceptance rates. The context level variables explain more than 40 per cent of the contextual variance. The variance in the coefficients of education remains unchanged compared to model 1.

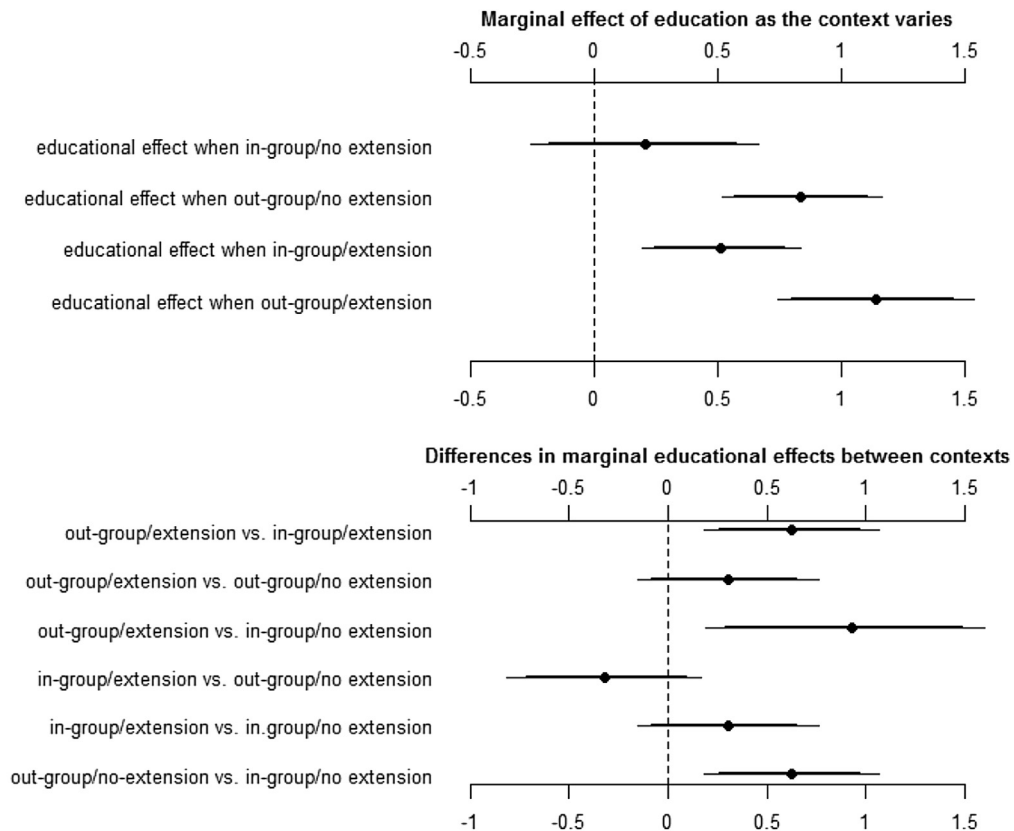
Model 3 finally includes two cross-level interactions to test whether the educational effect varies between different ballot contexts. While the log-odds presented in Fig. 1 show that the characteristics of a ballot proposal indeed moderate the effect of education, more detailed information is presented in Fig. 2, which depicts the marginal effects of education under four contextual conditions ([Brambor et al., 2005](#)). Initially, we see an absence of educational effects when a ballot measure aims to curtail the rights of an in-group minority. By contrast and as hypothesized, the strongest relationship between education and voting behaviour occurs when a proposal seeks to extend the rights of out-groups; model 3 shows that higher education is strongly associated with a higher probability to vote in favour of minority rights. In the two remaining cases – when the rights of out-group minorities are to be rolled back or when the rights of in-groups are to be expanded – education again plays a role, but it seems to be somewhat smaller.

The second graph in Fig. 2 illustrates the degree to which these differences in educational marginal effects are systematic in nature. Three out of six credible intervals of the estimated differences do not include zero, indicating that different characteristics of the ballot proposals moderate the relationship between education and voting behaviour in a systematic way. Overall, it can be concluded that the target group of a bill is a crucial factor for the strength of educational effects. If a bill concerns the rights of out-groups rather than in-groups, educational effects are systematically stronger, implying that in these situations



Notes: Log odds of logistic random intercept and random slope model (mean as well as the 90% and 95% credible interval) Bayesian estimation using MCMCglmm packages in R ([Hadfield 2010](#)).

Fig. 1. Explaining minority support (models 1–3). Notes: Log odds of logistic random intercept and random slope model (mean as well as the 90% and 95% credible interval) Bayesian estimation using MCMCglmm packages in R ([Hadfield, 2010](#)).



Note: Marginal effects and differences in marginal effects based on model 3.

Fig. 2. Marginal effects based on model 3. Note: Marginal effects and differences in marginal effects based on model 3.

voting in favour of the minority necessitates a higher degree of tolerance.¹⁴ By contrast and looking specifically at the second and fifth lines (Fig. 2, second graph), the strength of the relationship between education and pro-minority voting behaviour is not systematically contingent on whether a ballot measure proposes to expand or limit minority rights.

Altogether, educational effects are strongest when a bill aims to extending the rights of out-group minorities. They are virtually non-existent, however, when the rights of in-group minorities are to be curtailed. The differences in the target groups and the direction of the bill explain roughly one-fourth of the variance in the coefficients of education across the 39 bills.¹⁵

¹⁴ The commonality of the three credible intervals that do not contain zero is that they concern differences between in-group and out-group related proposals. Although the fourth such case (line 4 in graph) does contain zero, the distribution of marginal effects is still clearly on the negative side, thus again lending support to the aforementioned pattern.

¹⁵ Under the assumption that women are more likely to support women's rights than the rights of other minority groups, one can expect the coefficients of gender to vary across the 39 bills. Indeed, pre-analyses confirmed this expectation. However, the variance of the gender's coefficients could not be explained by distinguishing between those bills affecting women's rights and other bills.

We are somewhat restricted with regard to the control variables since potentially important variables such as economic perceptions are not available over the entire period of investigation and are therefore not included in the models presented thus far. Assuming that perceptions of economic threat correlate with education but also with the tolerance needed to vote in favour of minority rights, the educational as well as the moderating contextual effects we found could be biased. Fortunately, the surveys covering the five most recent popular votes in our sample do include variables on economic perceptions. We therefore estimated separate logistic regression models for these five cases. (1) The first vote was an optional referendum in 2007 and sought to cut benefits for disabled persons. (2) The second was a popular initiative in 2008, launched by the populist right and aimed to restrict naturalization. In 2009, three minority bills were voted on: (3) the optional referendum on the extension of the free access to the labour market for the new EU-citizens from Romania and Bulgaria; (4) the mandatory referendum on additional financial support for disability insurance (IV); and, finally (5), the minaret ban initiative. Bills 1, 2, and 5 intended to restrict minority rights; the other two sought for expansion. Proposals 1 and 4 affected in-groups; the others out-groups. Except for the

second case (restrict of naturalization), all proposals were accepted in the popular vote. The indicators on respondents' perceptions of their current and future economic situations were interacted because their effects might depend on one another. The results are presented in figures A to E in the appendix.

These additional analyses first illustrate that educational effects are confined to votes on the rights of out-groups (figures B, C, and E), which corroborates our findings from model 3. Including economic controls therefore does not change this key insight. Second, economic perceptions are strongly related to voting on naturalization rules (2): Those who had a more favourable view of their current and future economic situations were more likely to vote in favour of minority rights. Moreover, there is a substantial negative interaction effect: Respondents who saw their current economic situation to be negative were not likely to vote against minority rights if they believed that their economic situation would improve in the future; likewise, those who were currently satisfied with their economic situation but who foresaw a downturn were also less likely to vote against minority rights. The economic variables also explain voting behaviour on free access to the labour market (3), which also concerns the rights of out-groups who seek to come and work in Switzerland. By contrast, economic perceptions did not systematically matter when voting on the rights of disabled persons (1 and 4) or on the minaret ban. While the latter is again a proposal targeted at an out-group, the finding confirms that the debate and thus the voting behaviour was clearly dominated by a cultural threat instead of an economic argument.

6. Conclusion

In this study we have aimed to uncover the specific conditions that provide favourable or discriminatory conditions for minority rights in popular votes. In particular, we were interested in whether and how voters' educational level influences voting in favour of minority rights, thereby assuming that some proposals inherently necessitate a higher degree of political and social tolerance than others (Bobo and Licari, 1989; de Figueiredo and Elkins, 2003; Donovan and Bowler, 1998; Haider-Markel et al., 2007; Sniderman and Hagendoorn, 2007; Weldon, 2006). While previous analyses assumed a general effect of education on minority protection across all types of direct democratic decisions, we challenged the conventional wisdom and argued that the effect of education in the context of popular votes varies according to specific characteristics of the ballot measures.

Our Bayesian multilevel analysis of the 39 popular votes in Switzerland on fundamental minority rights over the last 30 years initially confirms that there is systematic variance in educational effects. In particular, the relationship between education and pro-minority voting behaviour is very strong when a ballot proposition aims at expanding the rights of out-group minorities, such as foreigners or Muslims. At the same time, no systematic

educational effect can be observed when the rights of in-group minorities, such as women and disabled persons, are to be curtailed. Our results therefore reveal important implication concerning voting behaviour on minority rights, namely that education, via its impact on one's cognitive sophistication and cultural knowledge, is important for tolerance and solidarity with social out-groups. There are however times when voting in favour of minority rights is less contingent on such norms (i.e. when voting on in-groups and/or when restricting rather than extending minority rights). In these situations, and thus in accordance with our central expectations, education is less important for the explanation of voting behaviour on minority rights. Future research should therefore adopt a more differentiated view of the education-tolerance relationship: Rather than seeing it as either generally weak or strong, the characteristics of a proposal matter for this relationship.

Viewed in this light, the results presented here provide evidence that postsecondary education alters cognitive skills in ways that foster the recognition of the extension of civil rights to those groups whom we do not know and perhaps even dislike.

Furthermore, we can conclude that only a specific type of direct democratic measure, one that explicitly aims to expand the rights of out-groups like ethnic (and non-Christian) minorities (see also Hainmüller and Hanggartner, 2013), leads to a clear negative bias in outcomes and favours a sharp educational divide in the voting population. In such direct democratic contests, foreigners and Muslims lose regularly, and many less educated voters perceive them to be a cultural and economic threat. By contrast, in-group minorities have significantly better chances in popular votes, with no observable educational effects present in these types of ballot measures. Interestingly, our findings seem to be in line with the study by Hajnal et al. (2002: 171) on direct democracy and minority rights in the US. They found important differences in the fates of members of different minority groups and showed that direct democratic outcomes do not harm minorities in general, but specifically target the rights of recently emerging immigrant minorities. We can therefore assume that this specific form of political intolerance concerning Muslims, foreigners, and asylum seekers (from outside of the EU) in Switzerland as well as Latinos in the US results from the perceived cultural and political threats that these emerging and growing out-groups pose.¹⁶ This seems to be a particularly disturbing trend, as it is precisely these groups of minorities whose civil rights are in need of the most protection by courts and other state authorities due to the fact that the vast majority have little political or economic power to defend their rights. It is foreseeable

¹⁶ However, no US study has systematically analyzed the different effects of education as we did for the Swiss case (in-/out-group, restriction/expansion of minority rights). We can therefore only assume that similar effects are observable in US States with a comparably extensive use of direct democratic rights, whereas in a context where direct democratic rights are seldom used, voters' political knowledge is rather low, and mobilization is high, the effects of education might be even more extensive than in Switzerland and the US.

that this trend will continue to grow, as immigrant out-groups, and not in-group minorities, have increasingly become the targets of popular initiatives stemming from the strong right-wing parties in Switzerland over the past few years.

Finally, it should be added that our findings might – at least in part – reflect the specific features of the political culture in Switzerland, and that we therefore must be cautious in our generalizations. Accordingly, we present our analysis of voting behaviour with the understanding that our results are based on specific data from Switzerland. This means that more comparative research

on education, direct democracy, and minority rights using large-scale surveys and representative samples from different cultural contexts and robust statistical modelling are necessary to shed more light on this important issue.

Appendix A. Supplementary data

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.electstud.2014.06.008>.

Appendix

Table A

The cases.

	Date	Topic	Minority	Extension	Yes votes	Approved	Protection	Institution	Turnout	N ^a
1	14.06.1981	Popular initiative equal rights for men and women	Women	yes	60.30%	yes	yes	M ^b	33.90%	325
2	20.05.1984	Popular initiative against the sellout of the homeland	Ethnic minorities	no	48.90%	no	yes	I	42.50%	319
3	02.12.1984	Popular initiative for an effective protection of motherhood	Women	yes	15.80%	no	no	I	37.60%	338
4	09.06.1985	Popular initiative “the right to live”	Women	no	31.00%	no	yes	I	35.70%	317
5	22.09.1985	Swiss civil code (effects of marriage)	Women	yes	54.70%	yes	yes	O	41.10%	371
6	05.04.1987	Federal law about residence and settlement of foreigners	Ethnic minorities	no	65.70%	yes	no	O	42.20%	489
7	04.12.1988	Popular initiative for the limitation of immigration	Ethnic minorities	no	32.70%	no	yes	I	52.80%	658
8	12.06.1994	Facilitated naturalization of young foreigners	Ethnic minorities	yes	52.80%	no ^c	no	M	46.80%	604
9	25.09.1994	Prohibition of discrimination by race	Ethnic minorities	yes	54.60%	yes	yes	O	45.90%	571
10	04.12.1994	Coercive measures concerning aliens law	Ethnic minorities	no	72.90%	yes	no	O	44.00%	541
11	25.06.1995	Federal law about the acquisition of real estate property by persons living abroad	Ethnic minorities	yes	46.40%	no	no	O	40.34%	410
12	25.06.1995	Popular initiative for an extension of the AHV and IV	Disabled persons	yes	27.60%	no	no	I	40.30%	202
13	10.03.1996	Revision of the language article	Linguistic minorities	yes	76.20%	yes	yes	M	31.00%	424
14	01.12.1996	Popular initiative against illegal immigration	Ethnic minorities	no	46.30%	no	yes	I	46.70%	529
15	27.09.1998	Popular initiative for the 10th AHV-revision without increase of the retirement age	Women	yes	41.50%	no	no	I	51.60%	593
16	13.06.1999	Asylum law	Ethnic minorities	no	70.60%	yes	no	O	45.60%	609
17	13.06.1999	Federal resolution concerning urgent measures regarding asylum and immigration	Ethnic minorities	no	70.80%	yes	no	O	45.60%	556
18	13.06.1999	Federal law about motherhood assurance	Women	yes	39.00%	no	no	O	45.90%	666
19	13.06.1999	Federal law about invalidity insurance	Disabled persons	no	30.30%	no	yes	O	45.60%	584
20	12.03.2000	Popular initiative for a just representation of women in the federal public authorities	Women	yes	18.00%	no	no	I	42.20%	470
21	24.09.2000	Popular initiative for a regulation of immigration	Ethnic minorities	no	36.20%	no	yes	I	45.30%	515
22	26.11.2000	Popular initiative against a higher retiring age for women	Women	yes	39.50%	no	no	I	41.70%	495
23	02.06.2002	Legalization of abortion	Women	yes	72.20%	yes	yes	O	41.80%	527
24	02.06.2002	Popular initiative for protecting the unborn child	Women	no	18.20%	no	yes	I	41.70%	497
25	24.11.2002	Popular initiative against the abuse of the asylum law	Ethnic minorities	no	49.90%	no	yes	I	47.90%	549
26	18.05.2003	Popular initiative for equal rights for disabled persons	Disabled persons	yes	37.70%	no	no	I	49.70%	515
27	16.05.2004	11th AHV revision: equal retiring age for women and men	Women	no	32.10%	no	yes	O	50.80%	621
28	26.09.2004	Facilitated naturalization of the second generation	Ethnic minorities	yes	43.20%	no	no	M	53.80%	610

Table A (continued)

Date	Topic	Minority	Extension	Yes votes	Approved	Protection Institution	Turnout	N ^a
29 26.09.2004	Facilitated naturalization of the third generation	Ethnic minorities	yes	48.40%	no	no	M	53.80% 604
30 26.09.2004	Federal law for motherhood assurance	Women	yes	55.50%	yes	yes	O	53.80% 610
31 05.06.2005	Federal law for official partnership of same-sex couples	Homosexuals	yes	58.00%	yes	yes	O	56.60% 702
32 25.09.2005	Free access to labour market for EU-immigrants	Ethnic minorities	yes	56.00%	yes	yes	O	54.40% 669
33 24.09.2006	Federal law about foreigners	Ethnic minorities	no	68.00%	yes	no	O	49.00% 552
34 24.09.2006	Change of the asylum law	Ethnic minorities	no	67.80%	yes	no	O	49.10% 555
35 17.06.2007	Federal law about assurance for disabled persons	Disabled persons	no	59.10%	yes	no	O	36.20% 597
36 01.06.2008	Popular initiative for democratic naturalization	Ethnic minorities	no	36.20%	no	yes	I	45.20% 567
37 08.02.2009	Free access to labour market for EU-immigrants (Romania and Bulgaria)	Ethnic minorities	yes	59.60%	yes	yes	O	51.40% 672
38 27.09.2009	Additional Funding for IV	Disabled persons	yes	54.60%	yes	yes	M	41.00% 381
39 29.11.2009	Popular initiative against building minarets	Ethnic minorities	no	57.50%	yes	no	I	53.40% 675
For the following popular votes on minority rights no VOX data is available:								
06.06.1982	Alien law	Ethnic minorities	yes	49.60%	no	no	O	35.18%
04.12.1983	Changing the rules of nationhood	Ethnic minorities	no	60.80%	yes	no	M	35.80%
04.12.1983	Facilitation of certain naturalization procedures	Ethnic minorities	yes	44.80%	no	no	M	35.90%
The following votes do not primarily affect women but retirees (1988) or are ambivalent regarding minority protection (1995):								
12.06.1988	Popular vote for lowering retiring age (for women and men)	Women	yes	35.10%	no	no	I	42.00%
25.06.1995	Federal law about AHV – ambivalence: women receive more money but have to work longer in return	Women	no	60.70%	yes	no	O	40.40%

Notes: mandatory referendum (M), optional referendum (O), popular initiative (I).

^a Number of observations per vote.

^b The bill was a counter proposal by the parliament.

^c The bill was approved by a majority of the people, but only by a minority of the cantons. Old age insurance (AHV); invalidity insurance (IV).

Table B

Hypotheses, operationalization and sources.

Variable	Summary statistics	Operationalization/Source ^a
<i>Dependent variables</i>		
Pro-minority rights vote	Shares: Pro minority rights: 56.26% Against minority rights: 43.74%	Dummy: 1 = voted in favour of minority rights; 0 = voted against minority rights
<i>Independent variables – individual level^a</i>		
Sex	Shares: Women: 49.49% Men: 50.51%	Dummy: 1 = women; 0 = men
Age	Mean: 50.36 S.D.: 16.83 Min.: 18 Max.: 97	Respondent's age in years.
Language	Shares: German: 72.52% French: 23.41% Italian: 4.07%	Language region in which an individual lives, three categories: 1 = German-speaking, 2 = French-speaking, 3 = Italian-speaking
Political awareness	Shares: High: 73.92% Medium: 22.29% Low: 3.78%	Awareness about the title and the content of a proposal voted on. Three categories: 1 = High political awareness (title and content known), 2 = Medium political awareness (either title or content known), 3 = Low political awareness (neither title nor content known)

(continued on next page)

Table B (continued)

Variable	Summary statistics	Operationalization/Source ^a
Party identification	Shares: Identifies with opposing party: 18.12% Does not identify with an opposing party: 81.88%	Dummy: 1 = respondent identifies with a party that had recommended opposing the minority rights, 0 = respondent does not identify with a party opposing the minority rights.
Individual economic situation (<i>only sub-sample</i>)	Mean: 2.86 S.D.: 0.73 Min.: 0 Max.: 4	Perception of one's current economic situation, indicator from 0 = very bad to 4 = very good with three intermediate categories.
Economic expectations (<i>only sub-sample</i>)	Mean: 1.00 S.D.: 0.45 Min.: 0 Max.: 2	Expectations about the personal economic situation in the future, indicator from 0 = getting worse, 1 = remaining the same, to 2 = getting better.
<i>Independent variable – contextual level</i>		
Out-groups	Shares: Ballot: 47.6% Citizens' assembly: 52.4%	Dummy: 1 = Proposal targets an out-group, i.e. ethnic minorities; 0 = Proposal targets in-groups, i.e. (non-ethnic minorities). Source: own coding based on official information.
Type of political decision	Shares: Initiatives: 35.33% Referenda: 64.67%	Dummy: 1 = popular initiatives; 0 = mandatory and optional referenda. Source: own coding based on official information.
Extending rights	Shares: Initiatives: 35.33% Referenda: 64.67%	Dummy: 1 = proposal aims to extending minority rights; 0 = proposal aims to limit minority rights. Source: own coding based on official information.

^a All individual variables are taken from the pooled VOX surveys of the ballot measures under investigation.

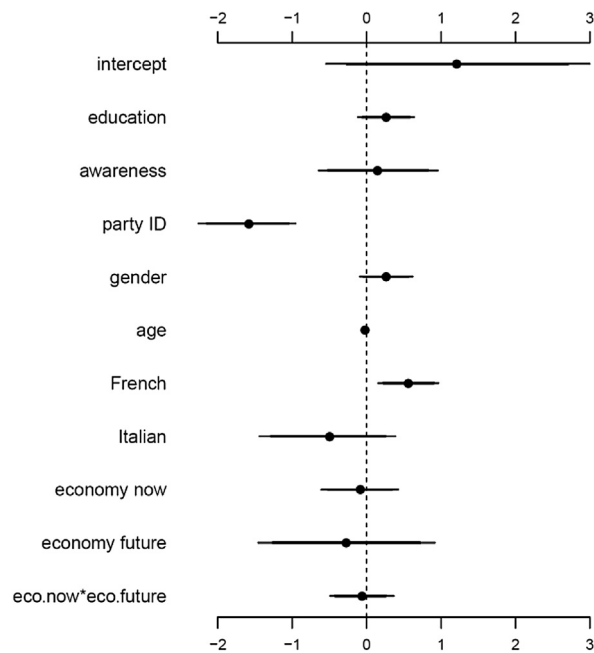


Figure A. Cutting the financial redistribution for disabled persons (2007). Notes: Log odds of logistic random intercept model (mean as well as 90% and 95% credible interval), Bayesian estimation: 500,000 iterations, burn-in: 500. $N = 597$.

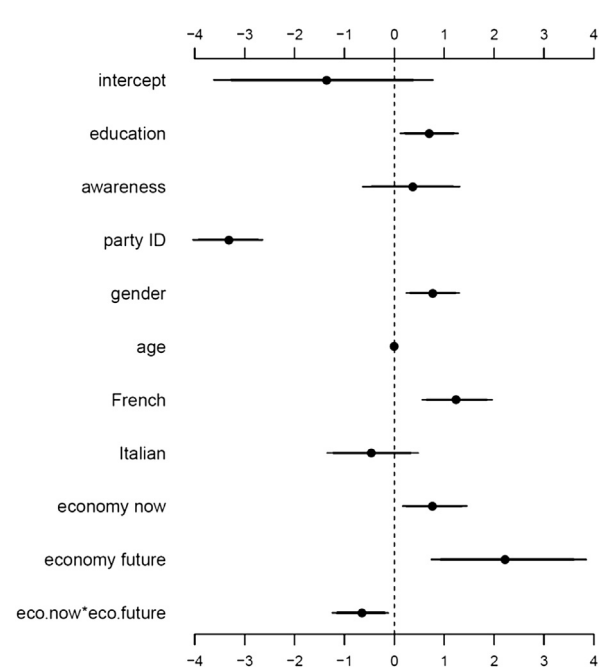


Figure B. Restricting naturalization (2008). Notes: Log odds of logistic random intercept model (mean as well as 90% and 95% credible interval), Bayesian estimation: 500,000 iterations, burn-in: 500. $N = 567$.

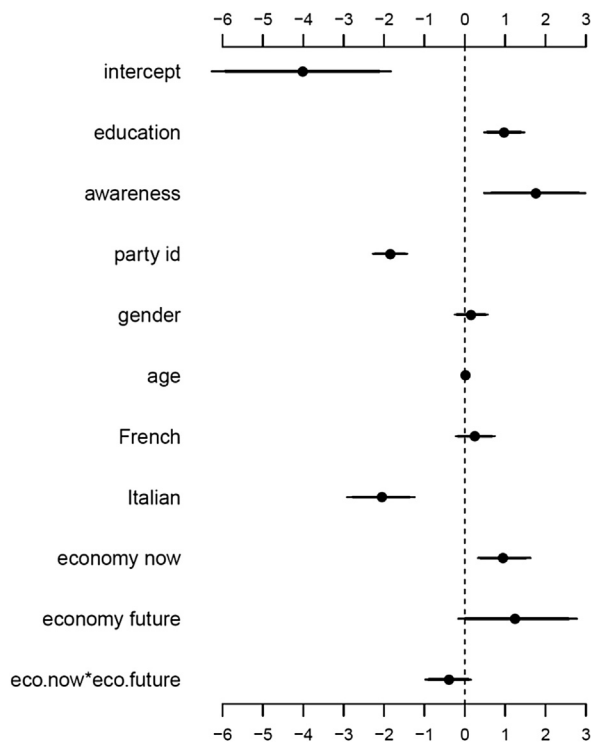


Figure C. Free access to labour market (2009). Notes: Log odds of logistic random intercept model (mean as well as 90% and 95% credible interval), Bayesian estimation: 500,000 iterations, burn-in: 500. $N = 672$.

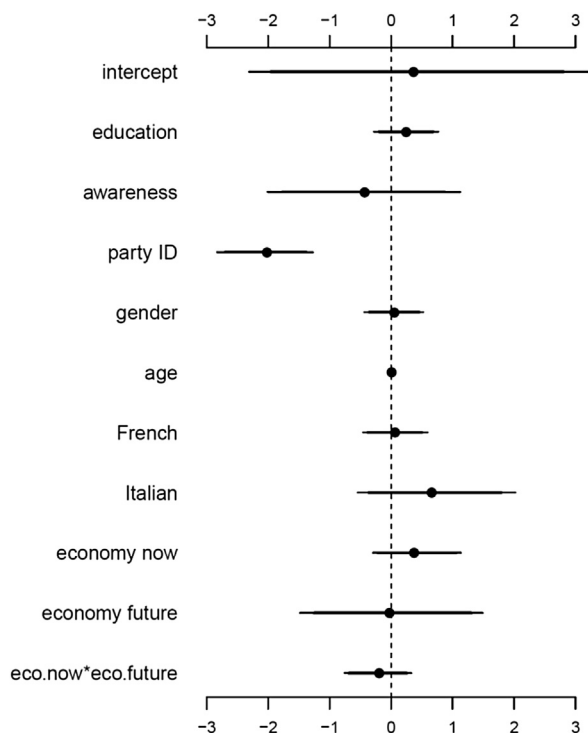


Figure D. Additional financial support for disabled persons (2009). Notes: Log odds of logistic random intercept model (mean as well as 90% and 95% credible interval), Bayesian estimation: 500,000 iterations, burn-in: 500. $N = 381$.

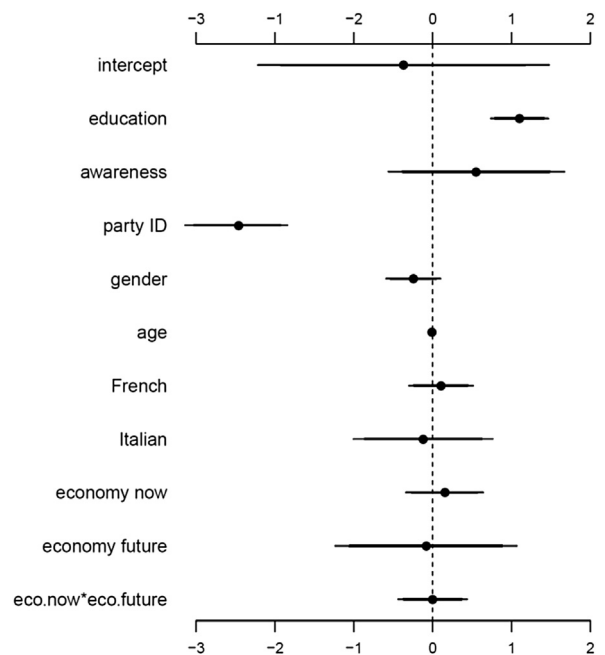


Figure E. The minaret initiative (2009). Notes: Log odds of logistic random intercept model (mean as well as 90% and 95% credible interval), Bayesian estimation: 500,000 iterations, burn-in: 500. $N = 675$.

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