# The more, the better? Counterfactual evidence on the effect of compulsory voting on the consistency of party choice 

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#### Abstract

Compulsory voting (CV) undoubtedly raises electoral turnout. Yet does it also affect individual party choices and aggregate election outcomes? Previous studies have focused on partisan or 'directional' effects of CV in favour of, for example, social-democratic or anti-establishment parties. These effects are usually small, however. Using survey data from the Belgian General Elections Study, this article finds that CV primarily affects the consistency, rather than the direction, of party choices. In particular, the analyses suggest that CV compels a substantial share of uninterested and less knowledgeable voters to the polls. These voters, in turn, cast votes that are clearly less consistent with their own political preferences than those of the more informed and motivated voluntary voters. Claims that CV promotes equal representation of political interests are therefore questionable.


## Introduction

Political participation is unequal among social groups and elections are often decided by a minority of all eligible voters. This problem has been emphasised by Lijphart (1997), who argues that low turnout puts the democratic ideal of political equality at risk. While institutional arrangements such as automatic registration of voters and weekend voting also affect turnout, Lijphart suggests that compulsory voting (CV) is the best means to solve the problem of unequal influence of social groups. Central to his argument is the suggestion that higher turnout would lead to a better representation of the preferences of voters of low socioeconomic status.

The contribution of Lijphart has sparked new debate on the consequences of low turnout and the advantages and disadvantages of CV. This debate touches on normative aspects, such as an opposition between conceptions of electoral participation as a right or as a duty. Here, however, we are interested in the empirical implications of CV. Its positive impact on turnout has been established beyond doubt (Hirczy 1994; Jackman 1987), and its tendency to reduce inequalities in the level of participation among social groups is
undisputed (e.g., Hooghe \& Pelleriaux 1998). The expected impact of CV, however, goes beyond the size and composition of the electorate. Much of the literature has focused on the relationship between turnout and electoral outcomes. In this respect, Lijphart's hypothesis is that higher turnout will affect the relative strength of parties. Those parties representing the preferences of voters with lower socioeconomic status should benefit from the increase in turnout. Thus, CV should lead to more equal representation of political preferences.

This proposition has received little empirical support, however. A variety of research designs and data sources have shown that higher or lower turnout would have only marginal effects on the relative strength of parties (Brunell \& DiNardo 2004; Eijk \& Egmond 2007; Highton \& Wolfinger 2001; Rubenson et al. 2007). Yet while the impact of CV on the 'direction' of the vote thus seems to be limited, CV may also affect the consistency of the relationship between citizens' political preferences and their electoral choices. CV may compel less motivated and knowledgeable voters to the polls who would otherwise have abstained. These voters, in turn, may tend to cast votes that do not accurately reflect their political preferences. In other words, the distribution of their party choices may be more variable than those of the more sophisticated voluntary voters, even if their preferences are equal. If true, this conjecture implies that the conditions for the efficient representation of preferences would be less fully met under CV. However, this equally important consequence of CV has received only little attention. This is all the more surprising as the risk that CV brings politically less interested citizens to cast uninformed votes is a central argument of its opponents. This fear was clearly expressed by Abraham, for instance, who argues that 'an unwilling or indifferent vote is a thoughtless one' (cited in Lijphart 1997: 10). Advocates of CV, by contrast, have emphasised its positive effect on the citizens' degree of political interest and knowledge. According to this optimistic view, CV not only increases turnout, but also functions as a method of political education. This consideration seems to have been important when CV was introduced in countries such as Belgium in 1893 or in the Netherlands and in Australia around 1920 (Robson 1923; Lijphart 1997).

The purpose of this article is to examine the impact of CV on the consistency of the translation of political preferences into party choices. In the next section, we discuss in more detail the mechanisms underlying this expected causal effect, as well as some possible counterarguments. We test our hypotheses using data from the Belgian Election Study, analysing how the variance of the relationship between issue positions and the vote is affected by citizens' propensity to participate in voluntary elections. We find strong support for our hypothesis that CV affects the consistency of voting decisions. We conclude by discussing the implications of our findings.

## Compulsory voting, political sophistication and electoral choice

Much research has shown that higher levels of education, political interest and sophistication increase the probability of turning out to vote (Wolfinger \& Rosenstone 1980; Powell 1986; Brady 1995; Jackson 1995). Thus, in a voluntary voting system, citizens who participate should come disproportionately from those strata with high education, interest and sophistication. Under CV, the bias should be weaker. This has been illustrated by Jackman (2003), for example, who compares Australia and the United States. In the latter, citizens with a low level of political sophistication are strongly underrepresented among voters. In Australia, by contrast, CV brings more citizens with a low level of political sophistication to the polls. While these findings seem intuitive, there is a counterargument that must be considered seriously: CV may foster civic education (Engelen 2007; Lijphart 1997). Yet, empirical evidence in favour of this argument is quite thin.

Gordon and Segura (1997) are among the few who have analysed the impact of CV on political sophistication. In their analysis of twelve Western European countries, including three in which voting is compulsory, they report a small, positive impact of CV on the level of political sophistication. However, the significant impact they find is due to a methodological artefact. ${ }^{1}$ Thus, while electoral participation may have positive 'fringe' effects, for example, on citizens' levels of external political efficacy (Finkel 1985) or their satisfaction with democracy (e.g., Engelen 2007), there is little evidence that participation makes citizens politically more sophisticated (Leighley 1991). Therefore, we must consider seriously the risk that CV brings citizens to the polls who would otherwise not vote, but will not increase their level of political sophistication. Consequently, we argue, their voting decisions will be more loosely related to their political preferences.

This possible consequence of CV has been developed on a theoretical level by Jakee and Sun (2006). They show that an increase in the number of voters who cast an 'uninformed' vote can reduce the probability that the result corresponds to the average preferences of informed voters. They assume that uninterested citizens have no clear preference for a given party or candidate and that their voting decision is a random choice. While the assumption of pure randomness is probably unrealistic, their model clearly identifies the mechanism through which CV may alter the outcome of the election. Furthermore, their general argument is still valid with less restrictive assumptions (Bartels 1996). As long as the party choices of citizens who would abstain in a voluntary system are less predictable than those of motivated participants, CV may weaken the link between aggregated voter preferences and electoral results. ${ }^{2}$

This claim is supported by research on the effects of political sophistication. Political experts not only have a better knowledge of politics than 'political novices', but they also organise and process this information in a more meaningful way (Fiske et al. 1983; McGraw \& Pinney 1990; Zaller 1992). Voters with a high level of political sophistication are, for example, better able to locate parties in the political space (Alvarez \& Franklin 1994; Powell 1989), which should also improve their ability to relate their own preferences to those of parties. It has been shown that uncertainty about parties' positions weakens the relationship between issue preferences and voting choice (Bartels 1986; Alvarez 1998). Such uncertainty should characterise the citizens who only take part in the election because they are compelled to do so. Voters being aware of the differences in the policy positions of parties and voting accordingly to their own preferences are central conditions for a system of political representation (Thomassen \& Schmitt 1997; Powell 2004).

While this argument is also supported by much research on electoral behaviour and opinion formation, we must also discuss a possible counterargument. Even if less sophisticated voters have a more approximate knowledge of parties' positions, they could still vote in a meaningful way based on other criteria. Central to this claim is the suggestion that citizens can make their voting decisions by relying on heuristics or cognitive shortcuts that allow them to vote as if they were fully informed (Sniderman et al. 1991; Lupia 1994). Heuristics are a central component of many models of information processing and of attitude formation (Chaiken 1980; Fiske \& Neuberg 1990; Petty \& Cacioppo 1986). For example, citizens may rely on their perception of candidates' traits rather than on their issue positions. Evaluating such traits should be less demanding in cognitive terms as voters are used to making such inferences in everyday life (Rahn et al. 1990). Yet while heuristic decision processes may moderate the impact of differences in the levels of political sophistication, they do not make such differences irrelevant. This claim is supported by the analyses of Bartels (1996), for example, who shows that electoral results would differ if all voters were fully informed. In fact, voting decisions based on heuristics may also be affected by uncertainty in the same way as those based on issue preferences. As Glasgow and Alvarez (2000) argue, uncertainty about candidates' traits and uncertainty about party positions are related to the same individual-level characteristics. Both are characteristic of voters with a low level of political information, a low education level or a low exposure to political news (Glasgow \& Alvarez 2000).

To sum up our hypotheses, we expect a lower propensity to turn out if voting is voluntary to be associated with a lower level of political sophistication, a less accurate perception of party policy positions and a less consistent relationship between political preferences and voting choice.

## Research design and data

In order to assess the causal effect of CV on voting behaviour, ideally we would observe the same voters confronted with the same stimuli (issues, candidates, parties, etc.) under voluntary and compulsory voting at a single election. Of course, such data cannot exist even in principle, but this counterfactual is nevertheless a useful starting point to evaluate alternative research designs. Cross-national studies of the effect of CV make inferences based on different voters reacting to different stimuli at different elections held under different electoral institutions, party systems and so forth, which may all intractably impinge on the voters' behaviour. The pursuit of such a design therefore seems hopelessly error-prone (Hirczy 1994). Second, panel studies that cover either the introduction or the abolition of CV in a single country provide the potential to account for the unobserved heterogeneity at the level of voters, eliminate the unsolicited variation at the level of political systems and substantially reduce background noise from differential stimuli. Hence, the causal leverage of panel studies would far exceed that of a cross-national design. Unfortunately, to the best of our knowledge, such data do not exist. Yet another possibility would be to capitalise on countries such as Austria and Switzerland, where some regions apply CV while others do not (Hirczy 1994). Such a design would prima facie allow us to observe different voters confronted with more or less identical stimuli at the same election held under the same systemic features (besides CV, of course). However, in Austria, regional survey data that satisfy the demands of our empirical venture are again nonexistent. Switzerland, on the other hand, exhibits extreme regional heterogeneity in cleavage structures, electoral institutions and party support, which suggests that voters primarily react to regionally varying rather than national (i.e., identical) political stimuli (Caramani 2004). Thus, the above reservations against cross-national comparisons may more or less equally apply to crossregional comparisons within Switzerland.

What we use instead are election survey data from Belgium, a country that applies CV, but in which CV itself has recently become a hotly debated political issue. The 1995 Belgian Election Study (BES) (Billiet \& Frognier 1998) includes an item designed to capture the respondents' propensity to turn out if voting were voluntary, and thus allows us to compare under otherwise equal conditions the actual voting behaviour of the 'voluntary' voters and those who would probably abstain if CV were abolished (Hooghe \& Pelleriaux 1998; De Winter \& Ackaert 1998). The crucial question here is that of the validity of such a hypothetical question. Jackman $(1998,1999)$ rightly cautions against an overly naïve use of this item in Australian election studies since self-selection of politically involved citizens into election survey samples ${ }^{3}$ and
the pressures of social desirability may bias estimates of the effects of CV. In particular, Jackman $(1998,1999)$ is worried that estimates of turnout declines under the voluntary vote are too small. Given that self-selection and social desirability actually were at work in our Belgian data, we would also expect attenuated estimates of group differences between the self-declared voters and abstainers under voluntary voting. Some respondents who would potentially abstain could be expected to wrongly indicate their willingness to participate in elections due to social desirability, and those who would actually abstain should be underrepresented in the whole sample due to the selfselection of the politically interested. Thus, if we are erring, at least we will presumably be erring on the conservative side.

## Party choice

Our dependent variable is 'party choice' in the 1995 elections as reported by the 3,668 respondents to the BES. ${ }^{4}$ Due to the far-reaching autonomy of Flanders and Wallonia, national parliamentary elections in Belgium are, in fact, separate regional elections in which completely different sets of parties compete for voters. This puts additional causal leverage on the data since it allows us to replicate our analyses for both the Flemish and the Walloon voters.

The BES data provide sufficient information to include in our study the voters of all eleven parties that gained parliamentary representation after the 1995 election. In the Flemish case, these are the Christian People's Party (CVP), the Liberals and Democrats (VLD), the Socialist Party (SP), the rightwing Vlaams Blok, the People's Union (VU) and the Ecologists (Agalev). In Wallonia, they are the Socialists (PS), the Liberal Reformist Party (PRLFDF), the Christian Social Party (PSC), the Ecologists (Ecolo) and the National Front (NF). ${ }^{5}$

## Turnout propensities

The aim of this study is to compare the behaviour of those who would choose to vote even if CV were abolished and those who would probably abstain. As indicated in the design section, we use a hypothetical measure to identify these groups. Table 1 shows how respondents are distributed over the categories of this question, along with their reported voting behaviour. The picture is striking: only 44 per cent of the respondents reported that they would always vote regardless of whether CV was abolished. On the other hand, one out of four respondents indicated that he or she would never vote if voting were voluntary. Another 5 per cent could not answer this hypothetical question. ${ }^{6}$
Table 1. Reported voting behaviour by turnout propensities

|  | Regular party choice | Invalid ballot | $R$ did not vote | $R$ does not remember | Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| R would $\ldots$ |  |  |  |  |  |
| $\ldots$ always | $0.93(1,432)$ | $0.01(11)$ | $0.02(37)$ | $0.04(57)$ | $0.44(1,537)$ |
| $\ldots$ generally | $0.92(455)$ | $0.01(4)$ | $0.04(21)$ | $0.03(17)$ | $0.14(497)$ |
| $\ldots$ sometimes | $0.87(407)$ | $0.02(8)$ | $0.04(15)$ | $0.08(39)$ | $0.13(469)$ |
| . . never vote | $0.75(640)$ | $0.11(91)$ | $0.06(47)$ | $0.09(80)$ | $0.24(858)$ |
| R doesn't know | $0.88(131)$ | $0.05(8)$ | $0.05(8)$ | $0.08(13)$ | $0.05(160)$ |
| Total | $0.87(3,065)$ | $0.04(122)$ | $0.04(128)$ | $0.06(206)$ | 3,521 |

[^0]Turning now to the reported behaviour of these groups, 93 per cent of the voters with the highest turnout propensity reported that they voted for a party. Only 1 per cent cast an invalid or blank ballot, and only 2 per cent abstained. Among those who reported that they would never vote again if CV was abolished, 11 per cent cast spoiled votes, 6 per cent abstained and another 9 per cent did not remember how they voted. These group differences are highly significant ( $F=36,3$ d.f., $p<0.001$ ). Obviously, unwillingness to vote already has observable behavioural consequences under CV at present. However, in the remainder of this study, we will turn our attention to those voters who reported a regular party choice.

## Political knowledge and interest

Varying level of political sophistication is the primary causal mechanism that theoretically accounts for potential differences in voting behaviour between the citizens voluntarily participating in elections and those unwillingly compelled to the ballot box by CV. Whereas political sophistication is usually conceptualised as the degree of elaboration and organisation of political beliefs (Converse 1964), political knowledge and interest mark the informational and motivational aspects that precede sophistication (Luskin 1990).

Our operationalisation of political knowledge is based on a battery of knowledge questions that asked respondents to assign 14 Belgian politicians to their respective parties. ${ }^{7}$ Combining these items into a single measure of knowledge is complicated by two related observations. First, the overall prominence of the political leaders varies tremendously. For example, threequarters of the respondents correctly assigned then Prime Minister Jean-Luc Dehaene to the CVP, while only 12 per cent of the sample were able to determine the party affiliation of Daniel Feret, le Président à vie of the rightwing National Front. Moreover, as a consequence of the de facto split of the Belgian party system along language lines, the prominence of all the politicians varies from region to region. For example, 94 per cent of the Flemish respondents correctly assigned Dehaene to the CVP, whereas only 51 per cent of the Walloon voters accomplished this task. In other words, the difficulty of these questions varies over stimuli (i.e., politicians) and from language region to language region. Thus, simply adding up the correct answers into an index would yield a flawed measure of knowledge. Instead, we employ the Rasch model, a frequently used psychometric scaling technique for dichotomous items, to assess the difficulty of knowledge question $k$ and locate each respondent $i$ on a latent knowledge dimension for each of the language regions separately (Rasch 1980).

The Rasch model is of the logistic form:

$$
\begin{equation*}
P_{i k}=\frac{\exp \left(\kappa_{i}-\delta_{k}\right)}{1+\exp \left(\kappa_{i}-\delta_{k}\right)} \tag{1}
\end{equation*}
$$

where $P_{i k}$ is respondent $i$ 's probability of correctly answering question $k, \kappa_{i}$ is $i$ 's political knowledge, and $\delta_{i}$ is the difficulty of question $k$. Thus, if $i$ 's political knowledge is higher than the difficulty of item $k$, he or she has a better-thaneven chance of correctly assigning the respective candidate to their party. ${ }^{8}$ Our measure of political knowledge is, then, $\kappa_{i}-$ the respondents' location on this latent scale. Table 2 describes the knowledge measure by different propensities to turn out. Not surprisingly, the groups vary significantly in their mean political knowledge ( $F=150,3$ d.f., $p<0.001$ ), with those respondents who reported that they would always turn out even if CV were abolished exhibiting much higher levels of knowledge than those who were more inclined to abstain.

The same applies to the average levels of political interest ( $F=391,3$ d.f., $p<0.001$ ). Political interest is measured here with a standard survey item on which the respondents could indicate with a 5 -point scale whether they were 'very' (4) to 'not at all' (0) interested in politics. In sum, voters who would probably abstain if voting were voluntary have substantially less motivation and skills - which are considered a precondition of informed choices in normative theory - than voters who would probably turn out even if CV were abolished (see also Irwin 1974).

## Political preferences

While normative theory expects voters to choose among candidates and parties on programmatic grounds, it offers no explicit account of how exactly

Table 2. Mean and standard deviation (SD) of political knowledge and interest by turnout propensities

|  | Knowledge |  |  | Interest |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | R would $\ldots$ |  |  | Mean | SD | N |
| $\ldots$ always | 0.31 | 0.97 |  | 2.10 | 0.94 | 1,571 |
| $\ldots$ generally | 0.18 | 0.94 |  | 1.69 | 0.82 | 518 |
| $\ldots$ sometimes | -0.16 | 0.91 |  | 1.31 | 0.81 | 485 |
| $\ldots$ never vote | -0.50 | 0.93 |  | 0.85 | 0.90 | 895 |
| Total | 0.02 | 1.01 |  | 1.61 | 1.03 | 3,469 |

voters come to make their decisions. Over the past 15 years, a lively debate has evolved around whether voters prefer the party that represents political views most similar to their own (the proximity model), or whether they vote according to the directional model - that is, prefer the party that is 'on their side' in a political conflict but advocates even stronger positions (Lewis \& King 1999; Merrill \& Grofman 1999). It is not the purpose of this study to review and compare the empirical merits of the two models against each other. Nevertheless, this debate is of substantial importance for our study. Some authors have argued that proximity voting is more informationally demanding than directional voting, and therefore should be a better reflection of how sophisticated voters make their decisions, while less sophisticated voters follow the directional model (MacDonald et al. 1995; Maddens 1996). If true, imposing assumptions exclusively in favour of one of the two models could seriously bias our conclusions about the behaviour of the (more sophisticated) voluntary voters and those solely compelled by CV. We therefore use both conceptions of issue voting and test them separately as well as jointly.

According to the proximity model, voter $i$ 's utility $U$ for party $j$ is the negative of the sum of the squared distances between $i$ and $j$ in an $M$-dimensional space, where $M$ is the number of political issues $m$ :

$$
\begin{equation*}
U_{i j}^{P}=-\sum_{m=1}^{M}\left(v_{i m}-p_{i j m}\right)^{2} \tag{2}
\end{equation*}
$$

The directional model, on the other hand, states that the voter's utility for $j$ is the sum of the products of voter and party locations, each relative to a neutral point:

$$
\begin{equation*}
U_{i j}^{D}=\sum_{m=1}^{M} v_{i m} p_{i j m} \tag{3}
\end{equation*}
$$

In our case, $m$ includes eight issues that have, for a long time, stimulated political controversy in Belgium: the conflict between Catholics and nonCatholics; state interventions in the economy; immigration; environmental protection; law and order; privacy rights; and regional autonomy. ${ }^{9}$ Respondents were asked to place themselves, as well as the major parties running in their region, on 11-point bipolar scales. We have recoded these scales to the $(-5,5)$ interval, with the neutral point at zero. We have also partly reversed the scales so that a value of -5 represents the most 'leftist' view in order to facilitate interpretation. ${ }^{10}$ Finally, we have normalised the proximity and directional measures for each voter by dividing by the number of issues with valid data. ${ }^{11}$ Note that the models in Equations 2 and 3 link voter positions $v$ to individual perceptions of the parties' positions $p$. If voters tend to perceive
their preferred party as being close to themselves, irrespective of what this party's 'true' location is in the ideological space, this will cause bias. Several authors have therefore suggested replacing individual perceptions of $p$ by the parties' average placements on the issue scales. However, if parties present different issue positions to different groups of voters, mean placements will introduce measurement error (Lewis \& King 1999). Moreover, even if the true $p$ 's were constant over voters, measuring $p$ by average placements will introduce bias in our model estimates since less sophisticated voters who are uncertain of the 'true' $p$ 's probably tend to place all the parties closer to the neutral point of the issue scales (Alvarez \& Franklin 1994; Powell 1989).

Figure 1 supports this conjecture. While the most knowledgeable voters, on average, place the Socialists and the Liberals at the opposite ends of the classical economic divide, the mean perceived positions of these two parties hardly differ in the least knowledgeable group of voters. The latter group also exhibits substantially larger variance in their party placements, which is indicative of their uncertainty as to where to locate the parties. At the same time, however, their larger variance casts some doubts on the argument that the observed mean differences in the perceptions of party positions are primarily due to parties presenting different issue positions to different groups of voters. Thus, if we use average party placements to measure $p$ in our models of issue voting, we will probably disadvantage the knowledgeable voters who know where the parties are 'truly' located and vote accordingly. Alternatively, if we use the mean party placements of the most knowledgeable voters to measure


Figure 1. Distribution of perceived positions of the Flemish Socialists (SP) and the Flemish Liberals and Democrats (VLD) on the state intervention vs. free enterprise scale by political knowledge. Grey curves represent the most knowledgeable $10 \%$ of the electorate; black curves represent the least knowledgeable $10 \%$.
$p$, we will still ignore potentially varying issue positions that parties may signal to different groups of voters, disadvantaging the less sophisticated voters. Our solution to this problem is to specify three alternative conceptions of $p$ : individual placements, mean placements and mean placements of the most knowledgeable 10 per cent of the electorate. However, since our main conclusions do not substantially differ across these specifications, we will only present the results for the individual perceptions specification $p_{i j}$ and enter the results of the alternative specifications on the credit side of robustness. ${ }^{12}$

## A heteroscedastic conditional logit model of party choice

The previous normative and operational discussion of issue-voting has been deterministic in the sense that voters have been assumed to be certain to select the party with the highest issue-based utility. Of course, this is unrealistic since voters may also choose on criteria other than issues, and on issues other than the ones included in any specific empirical model. We do not even attempt to measure such factors explicitly here. Instead, we adopt a probabilistic approach - that is, we model the unobserved component of individual utility as a random variable.

Again, let $U_{i j}$ be the voter's $i$ utility for party $j$. We assume that $U_{i j}$ can be partitioned into a systematic component $\beta_{i j}$ and a random term $\varepsilon_{i j}$, so that:

$$
\begin{equation*}
U_{i j}=\beta X_{i j}+\varepsilon_{i j} \tag{4}
\end{equation*}
$$

where $X_{i j}$ is a vector of (in our case, spatial) variables measuring attributes of party $j$ relative to $i .{ }^{13}$ The random component $\varepsilon_{i j}$ represents unmeasured factors affecting the voters' choices and assumed to be unrelated to the systematic component. If we assume that the random component to follow an IID extreme value distribution, the conditional logit model results. ${ }^{14}$ In the conditional logit model, the probability that $i$ votes for $j$ is of the form

$$
\begin{equation*}
P_{i j}=\frac{\exp \left(\lambda \beta X_{i j}\right)}{\sum_{k=1}^{J} \exp \left(\lambda \beta X_{i k}\right)} \tag{5}
\end{equation*}
$$

where $\lambda$ is a scale parameter that is inversely proportional to the variance $\sigma^{2}$ of the error term $\varepsilon_{i j}$ :

$$
\begin{equation*}
\lambda=\frac{\pi}{\sqrt{6 \sigma^{2}}} \tag{6}
\end{equation*}
$$

Since $\lambda$ is not identified, it is usually fixed at 1 . Thus, the conditional logit model assumes that the error variance is constant across individuals. This assumption is in direct contradiction to our expectation that uninformed and uninterested voters forced to the polls by CV will exhibit a larger error variance in translating their issue preferences into vote choices. We therefore directly model the hypothesised heterogeneity of the error term as a function of the voters' propensity to turn out, $Z_{i}{ }^{15}$

$$
\begin{equation*}
\lambda_{i}=\exp \left(\gamma Z_{i}\right) \tag{7}
\end{equation*}
$$

This gives the heteroscedastic conditional logit model (Hensher et al. 1999). Finally, substituting the right-hand side of Equation 7 for $\lambda$ and resolving Equation 6 for $\sigma_{i}$ yields

$$
\begin{equation*}
\sigma_{i}=\frac{\exp \left(\gamma Z_{i}\right) \pi}{\sqrt{6}} \tag{8}
\end{equation*}
$$

In the subsequent empirical section, we will label Equation 5 as the location submodel, since it locates the voters in the party space. Equation 7 is labelled the precision submodel, since higher estimates of $\gamma$ signify a closer fit of the systematic component to party choice. Thus, if the hypotheses held, we would expect lower $\gamma$ 's and $\lambda$ 's and therefore larger variances ( $\sigma^{2 \prime}$ ) of the systematic vote functions among voters who would probably abstain if CV were abolished. Statistical results are presented in the following section. ${ }^{16}$

## Findings

Table 3 presents results from four different specifications of the heteroscedastic conditional logit model of party choice. Model 1 includes only the proximity measure in the location submodel that links the voters' preferences with their choices; the heteroscedastic component comes from the three lower categories of the voluntary turnout propensity item. Those voters who indicated that they would always turn out, even if CV were abolished, constitute the reference category, for which the scaling parameter $\lambda$ is fixed at 1 (otherwise the model would not be identified). Model 2 contains only the directional utility measure in the location submodel. Model 3 includes both the proximity and the directional specification. Model 4 adds measures of political knowledge and interest to the precision submodel in order to assess the degree to which eventual variance-altering effects of the turnout propensities are due to a differential composition of the turnout propensity groups with respect to their sophistication levels. ${ }^{17}$

Table 3. ML-estimates from the heteroscedastic conditional logit models of party choice

|  | Model 1 | Model 2 | Model 3 | Model 4 |
| :---: | :---: | :---: | :---: | :---: |
| Flanders |  |  |  |  |
| Choice submodel ( $\beta$ 's) |  |  |  |  |
| Proximity | 0.13 (0.01)*** |  | 0.04 (0.01)*** | 0.03 (0.01)*** |
| Direction |  | $0.29(0.02)^{* * *}$ | $0.23(0.03)^{* * *}$ | $0.19(0.03)^{* * *}$ |
| Precision submodel ( $\gamma$ 's) |  |  |  |  |
| R would... |  |  |  |  |
| ... generally | -0.02 (0.12) | -0.11 (0.13) | -0.08(0.13) | -0.07 (0.13) |
| . . . sometimes | -0.48 (0.21)** | -0.45(0.19)** | -0.47(0.20)** | -0.30 (0.19) |
| ....never vote | -0.51 (0.14)*** | -0.50 (0.12)*** | -0.52 (0.13)*** | -0.36 (0.14)** |
| Knowledge |  |  |  | 0.27 (0.07)*** |
| Interest |  |  |  | 0.05 (0.06) |
| Log-likelihood | -2,406 | -2,341 | -2,332 | -2,311 |
| LM test (3 d.f.) | 52.06*** | 59.89*** | 65.43*** | 189.41*** |
| Wallonia |  |  |  |  |
| Choice submodel ( $\beta$ 's) |  |  |  |  |
| Proximity | 0.12 (0.01)*** |  | 0.03 (0.02)** | 0.03 (0.02)** |
| Direction |  | $0.29(0.03)^{* * *}$ | 0.23 (0.04)*** | $0.20(0.05)^{* * *}$ |
| Precision submodel ( $\gamma$ 's) |  |  |  |  |
| R would... |  |  |  |  |
| ...generally | 0.12 (0.18) | -0.13 (0.22) | -0.08 (0.21) | 0.07 (0.19) |
| ... sometimes | -0.35 (0.27) | $-0.50(0.24)^{* *}$ | -0.48 (0.25)* | -0.22 (0.22) |
| .... never vote | $-0.91(0.32)^{* * *}$ | $-0.95(0.30)^{* * *}$ | $-0.96(0.31)^{* * *}$ | -0.74 (0.27) ${ }^{* * *}$ |
| Knowledge |  |  |  | $0.26(0.07)^{* * *}$ |
| Interest |  |  |  | 0.01 (0.07) |
| Log-likelihood | -1,167 | -1,137 | -1,134 | -1,120 |
| LM test (3 d.f.) | 81.46*** | 99.68*** | 103.70*** | 240.50*** |

Notes: Robust standard errors in parentheses; N: 1,698 (Flanders), 950 (Wallonia); J: 6 (Flanders), 5 (Wallonia). Estimates of party intercepts omitted from the table. $* * * p<0.01$; ** $p<0.05$; * $p<0.10$.

Not surprisingly, the estimates of Model 1 indicate a highly significant positive effect of the ideological closeness of voters and parties on the probabilities to choose a party, for both Flanders and Wallonia. As hypothesised, however, this effect is diluted by the voters' propensities to turn out under the voluntary vote, with those voters susceptible to abstention revealing a less consistent translation of their issue positions into party choices. Since the respective $\gamma$-coefficients do not easily lend themselves to substantial interpretation, we have inserted them into Equations 7 and 8 to retrieve estimates of
the scaling parameters $\lambda$ and the variances $\sigma^{2}$ in Table 4. Turning now to these variances, we can see that the choices of voters who declared that they would never vote again if voting were voluntary are about three (among Flemings) to six times (among Wallonians) as variable as the party choices of the voluntary voters, with their proximity-based utilities being held constant. In other words, the proximity model indicates that unwilling or ignorant voters forced to the polls by CV tend to make choices that are considerably less consistent with their policy preferences than voluntary voters.

Could this result be an artefact arising from the case that less sophisticated voters make their decisions according to the directional rather than the proximity model (MacDonald et al. 1995; Maddens \& Hajnal 2001)? The estimates from Model 2 suggest that this is not the case as the group differences in the precision submodel persist at the same level. Again, the party choices of the forced voters are much more variable than those of the voluntary voters. As is obvious from Equation 8, this larger variance comes along with a 'scaling' effect in our models' systematic component - that is, a larger variance is associated with a lower $\lambda$-parameter that, in turn, attenuates the slope that links the voters' preferences to their probabilities to vote for the parties considered.

The conditional nature of our models complicates the graphic illustration of such an effect. In order to do so, let us assume four voters in Wallonia, each with a different propensity to turn out under the voluntary vote. All these

Table 4. Predicted scale parameters ( $\lambda$ 's) and variances ( $\sigma^{2}$ 's) from the heteroscedastic conditional logit models of party choice

|  | Model 1 |  | Model 2 |  | Model 3 |  | Model 4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\lambda$ | $\sigma^{2}$ | $\lambda$ | $\sigma^{2}$ | $\lambda$ | $\sigma^{2}$ | $\lambda$ | $\sigma^{2}$ |
| Flanders |  |  |  |  |  |  |  |  |
| R would... |  |  |  |  |  |  |  |  |
| ....always | 1 | 1.64 | 1 | 1.64 | 1 | 1.64 | 1 | 1.64 |
| ....generally | 1 | 1.64 | 0.9 | 2.04 | 0.92 | 1.93 | 0.93 | 1.90 |
| ... sometimes | 0.63 | 4.16 | 0.64 | 4.00 | 0.63 | 4.16 | 0.74 | 2.99 |
| .... never vote | 0.6 | 4.58 | 0.61 | 4.41 | 0.6 | 4.58 | 0.7 | 3.35 |
| Wallonia |  |  |  |  |  |  |  |  |
| R would... |  |  |  |  |  |  |  |  |
| ...always | 1 | 1.64 | 1 | 1.64 | 1 | 1.64 | 1 | 1.64 |
| ....generally | 1.13 | 1.28 | 0.88 | 2.13 | 0.93 | 1.90 | 1.08 | 1.42 |
| ... sometimes | 0.71 | 3.28 | 0.61 | 4.41 | 0.62 | 4.28 | 0.8 | 2.56 |
| . . . never vote | 0.4 | 10.30 | 0.39 | 10.82 | 0.39 | 10.82 | 0.48 | 7.13 |

voters have a prior probability of voting for any of the five parties of $1 / 5=0.2$. Based on the estimates from Model $2,{ }^{18}$ Figure 2 plots the predicted probabilities of each voter choosing a given party over the whole range of the directional utility measure, other things being equal. The scaling effect of the varying $\lambda$ 's is clearly visible: the probability of choosing the respective party rises steeply with increasing directional utility for the two voters who would always or generally vote if CV were abolished. For the other two voters, and particularly for the one who declared he would never vote again, the linkage between the directional measure and party choice is clearly weaker.

Similar conclusions can be drawn from Model 3, which includes both the directional and the proximity components, but provides only a marginally better fit with the data. Model 4 adds the knowledge and interest variables to the precision submodel in order to assess whether the previously observed differences between the turnout propensity groups are due to these groups' differential levels of political sophistication. In fact, the inclusion of information and, in particular, knowledge, decreases the differences in voting behaviour between the voluntary voters and the voters compelled by law.


Figure 2. The 'scaling' effect of turnout propensities on the vote function that translates (directional) preferences into party choice. The steepest, black curve represents voters that would always turn out if voting were voluntary. The flattest, grey curve represents voters that would never turn out. The voters have a (non-spatial) baseline probability to vote for the party of $20 \%$. The directional utilities for other parties are kept constant at zero (indifference). Estimates are taken from Model 2 (Wallonia).

Nevertheless, the group most likely to abstain if CV were abolished still exhibits significantly larger variance in their vote functions. We can only speculate that this finding might signal that our indicators of knowledge and interest do not fully cover the complex concept of political sophistication. In particular, we reckon that our operationalisation taps the motivational and informational facets of political sophistication, but probably ignores the important aspect of the voters' capabilities to process political information (Luskin 1990).

Wherever these differences come from, we observe that voters prone to abstain if CV were abolished are less inclined to make their decisions in a way that coherently reflects their issue preferences. Yet do their party choices also systematically differ from those of the voluntary voters? In other words, would election results change in a predictable direction if these voters actually could abstain? Moreover, what would election results look like if these voters chose parties on issue grounds in the same way as did the voluntary voters?

In an attempt to answer these hypothetical questions, we have set up two simple counterfactuals in Table 5. The first column reports the official results of the 1995 Chamber of Representatives elections. ${ }^{19}$ The second column shows the corresponding frequencies in our sample. The third column aggregates the

Table 5. Results of the 1995 Belgian Chamber elections under actual and counterfactual conditions

|  | Actual |  |  |  | Counterfactual |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Parties | Official | Sample | Predicted |  | w/o | $\lambda=1$ |
| Flanders |  |  |  |  |  |  |
| Agalev | 0.07 | 0.08 | 0.07 |  | 0.09 | 0.10 |
| CVP | 0.29 | 0.32 | 0.33 |  | 0.32 | 0.32 |
| SP | 0.21 | 0.22 | 0.22 |  | 0.21 | 0.19 |
| Vlaams Blok | 0.13 | 0.09 | 0.09 |  | 0.08 | 0.11 |
| VLD | 0.22 | 0.22 | 0.22 |  | 0.22 | 0.20 |
| VU | 0.08 | 0.08 | 0.08 |  | 0.09 | 0.10 |
| Wallonia |  |  |  |  |  |  |
| Ecolo | 0.11 | 0.15 | 0.15 |  | 0.16 | 0.16 |
| FN | 0.06 | 0.03 | 0.02 |  | 0.03 | 0.10 |
| PRL-FDF | 0.28 | 0.27 | 0.27 |  | 0.28 | 0.24 |
| PS | 0.33 | 0.31 | 0.31 |  | 0.29 | 0.27 |
| PSC | 0.21 | 0.25 | 0.26 |  | 0.26 | 0.24 |

Notes: Offcial vote shares; vote shares in the sample; vote shares as predicted by the HCLM; sample vote shares disregarding (w/o) those who would never vote; predicted vote shares, with the scale parameter $\lambda$ set to 1 .
predicted probabilities of voting for the parties from Model 3 under actual conditions - that is, including the self-declared abstainers and assuming their actual voting behaviour. The fourth column provides the party proportions from a simple frequency count excluding those respondents who reported that they would never vote if CV were abolished; these are the election results that we would probably expect if voting were voluntary. Finally, the fifth column gives the aggregated voting probabilities predicted by the estimates of Model 3 including the probable abstainers, but assuming that all the voters vote as precisely as the voluntary voters do (i.e., $\lambda$ is fixed at one).

Since the voter distributions across parties in our samples differ slightly from the official election results, we use column two as a yardstick to evaluate the first counterfactual (which is also based on a simple frequency count). In the same vein, since the 'actual' model prediction also deviates slightly from the simple frequency count, we use the predicted outcome in column three as the baseline to evaluate the second counterfactual in column five. As to the first counterfactual, we find barely any differences between the results. Obviously, the self-declared abstainers do not systematically differ in their party choices from the voters who expressed more willingness to participate under the voluntary vote. Thus, frequently expressed concerns that the left parties, in particular, would suffer electoral losses if CV were abolished are not supported by our data. Likewise, our second counterfactual suggests that election results would not differ dramatically if the probable abstainers voted as coherently in accordance with their policy preferences as did the voluntary voters.

One tendency seems noteworthy here: the smaller parties, such as Agalev, Ecolo, the Vlaams Blok and, in particular, the National Front consistently seem to profit under these counterfactual conditions. This interesting finding also refutes a potential rival interpretation of our individual-level results: it may well be that CV compels to the polls the politically disaffected who would otherwise abstain. These voters, in turn, may be expected to cast a 'protest vote' for an anti-establishment party (Billiet \& De Witte 1995). Consequentially, we would also find that these voters make choices less consistent with their policy preferences, but that this inconsistency is due to a conscious decision rather than a lack of motivation, information or capability. If this conjecture held, however, we would expect the vote shares of the less established parties to decrease under the second counterfactual. ${ }^{20}$

## Conclusion

This article has analysed the impact of CV on the relationship between citizens' political preferences and their voting choices. Focusing on the 1995

Belgian General Election, we observed that voters differ strongly in their willingness to turn out if CV were abolished. A large share of the electorate indicated that they would probably abstain in such a situation. This disposition towards participation in a voluntary voting system has important consequences: lower turnout propensity is linked with lower levels of both political knowledge and political interest. Citizens who participate only because they are compelled to do so by CV also tend to be less aware of the differences between the various parties on the main issue dimensions.

These differences between compelled and voluntary voters have important implications for the relationship between policy preferences, party choice and election outcomes. The party choices of citizens forced to vote by CV are less consistently related to their political preferences. This individual effect is strong (it is of similar size in both linguistic regions under study) and it is robust across various specifications of our model. At the aggregate level, CV increases the likelihood that the election outcome will not accurately reflect the distribution of voter preferences. Using the estimates of our model, we predicted what the results of the 1995 Belgian Chamber election would have looked like if the linkage between individual preferences and choices had been as strong among compelled voters as among the voluntary ones. Contrary to conventional wisdom, this would have changed the outcomes, with small parties (particularly those on the far-right) gaining a larger share of the vote. However, the magnitude of the aggregate effects we found is not outstanding.

In sum, it is questionable whether CV promotes the equal representation of political interests. Equal representation requires both socioeconomically unbiased participation and voters who vote in accordance with their wants and needs. While CV tends to ensure the former condition by boosting levels of turnout, it fails to guarantee the latter. Which contextual factors, then, may help these voters to make choices consistent with their preferences? Comparative electoral researchers have repeatedly pointed out the role of the 'stakes' of elections in this regard (see Franklin 1999, 2004). Elections that are highly competitive and consequential stimulate parties and candidates to wage intensive election campaigns. These campaigns, in turn, mobilise voters to turn out and, at the same time, provide them with the information necessary to make choices that reflect their preferences.

Few of these conditions are met in Belgium: negotiations among the elite, rather than the election outcome itself, determine the composition of the government; oversized government coalitions frequently cloud the accountability of particular parties for specific policies; and political power is decentralised due to the federal state structure. These circumstances may explain why the anticipated turnout decline, as measured by the share of those unwilling to participate in elections if CV were abolished, is dramatically higher in

Belgium than in other countries applying CV (De Winter \& Ackaert 1998). Thus, low levels of electoral participation may be a serious democratic problem, but the sources of this problem are unlikely to be affected by CV.

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## Notes

1. Their analysis combines characteristics of both voters and countries, but is performed at the individual level, which strongly underestimates the uncertainty surrounding the effects of contextual factors. Once the model is properly specified, the effect of CV disappears. Using the data reported in Tables 1 and 3 of Gordon and Segura, we replicated their first model, which includes only contextual variables. However, we used countries rather than individuals as units of observation. The impact of CV is then clearly non-significant, with a $p$-value of 0.84 . The same problem affects an analysis by Berggren (2001), who uses the data of Gordon and Segura to test a slightly different causal model.
2. There are similarities between this situation and the Condorcet Jury Theorem, which states that the probability of a decision taken by a group being correct increases with group size. This could imply that compelling less motivated voters to take part in the election will in fact lead to a more accurate collective choice. However, this theorem rests on several critical assumptions that are not necessarily met in the case of voting decisions by a mass electorate (Bartels 1996:199; Jakee \& Sun 2006:73). In particular, the theorem assumes that the probabilities of a correct decision are the same for all individuals (which our results show not to be the case) and that they are larger than 0.5 (which is a very strong assumption to make, especially in a multiparty system). Furthermore, the counterfactual analyses presented in the 'Findings' section below show that the aggregate information effects are far from being negligible.
3. As opposed to voting, participation in election surveys is, of course, voluntary in Australia and Belgium.
4. The 150 members of the Chamber of Representatives are elected by proportional representation from party lists in twenty electoral districts of varying magnitudes according to the d'Hondt method. Disproportionalities in the transformation of votes into seats that potentially emanate from small districts are corrected at the level of the provinces. Thus, incentives to vote strategically - i.e., to choose a party other than the one most preferred in order to obtain a more favourable outcome - are limited in Belgium. This is important to note, since strategic voting would also affect the variance of the vote function that links the voters' preferences to their choices, and could thus bias our conclusions. This bias would presumably disadvantage the more sophisticated voters since they have a higher propensity to vote tactically (see Blais \& Turgeon 2004).
5. See the second column of Table 5 for how the voters in the sample are distributed over these parties.
6. These will be excluded from the estimation sample.
7. To be sure, we do not assume that the ability to assign politicians to their parties correctly is directly linked to the ability to make consistent party choices. However, many studies have demonstrated that different types of political knowledge and different conceptions of political sophistication are closely related empirically (for an overview, see Luskin 2002). Thus, it seems reasonable to use these assignment tasks (which is the only set of indicators available in the 1995 BES) as a proxy of a more general notion of political knowledge. Our subsequent findings suggest that knowledge as measured by assignment tasks is indeed highly consequential for the consistency of party choices.
8. The model in Equation 1 is not identified since the probabilities only depend on the relative positions of the knowledge and difficulty parameters. We therefore constrain the latent knowledge scores to have means of zero. The detailed results from the Rasch model of political knowledge in the Flemish and Walloon electorate are given in the online appendix to this article available online at: www.romain-lachat.ch/ejpr_cv.html. We used Raschtest, a user-written program for Stata to estimate the parameters via conditional maximum likelihood and to assess the model fit (see Hardouin 2001). For interpretational convenience and comparability, we have standardised the knowledge scores of the Flemish and Walloon voters so that their standard deviations are one.
9. English translations of the questions are given in the online appendix to this article at: www.romain-lachat.ch/e.jpr_cv.html.
10. These reversals have been based on a correlational analysis of the issue scales and the respondent's self-placements on a left-right scale.
11. This strategy maximises the number of usable cases in the face of missing observations (see Merrill \& Grofman 1999). We include all the respondents who were able to locate themselves, 'their' party and at least one other party on at least one issue scale. However, the number of issues that inform the spatial utility components, and thus their discriminatory power, now differs between individuals. Given that less sophisticated voters are less likely to to respond to the issue-related survey questions, this may bias our results to the disadvantage of these voters. In fitting the models, we have therefore also used the number of valid issue-observations per voter as a control variable. This did not substantially change our results. On the other hand, the number of parties from which to choose may also be limited by missing observations - i.e., when some voters fail to provide any information with respect to a single party. Such limited choice sets, in turn, may actually enhance the predictive power of the spatial utility components, this time to the disadvantage of the voters who provided issue-specific information on all the parties. We have therefore also controlled for the number of alternatives in the individual choice sets. Again, the substantive conclusion remain unaffected.
12. We have also fitted several less restrictive models in which the parameters of the utility functions were allowed to vary by party and by issue, respectively. Again, our main conclusions remain unaffected. These additional results are available from the authors upon request.
13. We also include $J-1$ party intercepts in $X$ in order to account for varying non-spatial party attractiveness.
14. See McFadden (1973); Alvarez and Nagler (1998). The extreme value distribution is substantially similar to the normal distribution, but leads to cleaner expressions for the choice probabilities (see Merrill \& Grofman 1999).
15. In a final estimation step, we will also include political knowledge and interest in $Z$ in order to assess to what extent eventual differences in the behaviour of voluntary and forced voters are due to differential average levels of political sophistication.
16. We have fitted the heteroscedastic conditional logit models via maximum likelihood using Clogithet, a user-written program for Stata (Hole 2006).
17. The standard errors of the estimates are robust ones that account for the possibility that the errors are related within individuals across parties.
18. We are using Model 2 at this stage for expositional convenience. In the subsequent aggregate predictions, we will be using Model 3 , which provides a (slightly) better fit to the data.
19. We have taken the official figures from the website of the Belgian Ministry of the Interior (www.elections.fgov.be/). In order to enhance the comparability, the population from which the party percentages have been calculated is not the number of valid votes cast at this election, but the total number of votes cast for any of the parties included in this analysis, segregated by region.
20. In a somewhat more direct attempt to assess the impact of political disaffection on the consistency of party choice, we have re-estimated Models 3 and 4 including a latent measure extracted from a 13 -item battery on political efficacy by principle components. While stronger feelings of political efficacy indeed increased the precision of the choice function, it did not significantly reduce the impact of the turnout propensities under the voluntary vote, which seems to corroborate our argument.

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[^0]:    Note: Entries are proportions and total numbers (in parentheses).

