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On the mismeasurement of sincere and strategic voting in mixed-member electoral systems

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ABSTRACT

Under mixed systems, voters cast two votes to elect the same legislative body: one vote for parties using proportional rules and one for candidates using majoritarian rules. Voters are said to cast *straight*-tickets if the candidate they vote for is of the same party as their proportional vote; otherwise, they are said to cast *split*-tickets. Split-ticket voting is commonly used as a measure of strategic voting as splitters are usually assumed to express their true preference in one vote but vote strategically in the other. This study challenges this practice showing that split-ticket voting does not necessarily indicate strategic voting, just as straight-ticket voting does not necessarily indicate a sincere vote. This result has wider consequences as it indicates that measuring strategic voting from observed behaviour can result in incorrect conclusions about vote choice.

1. Introduction

This paper looks at vote choice under mixed-member electoral systems (hereafter referred to as mixed systems). The two-ballot paper in countries like Germany, New Zealand and Japan allows voters to cast two votes to elect the same legislative body. One of these two votes is for a local candidate on the majoritarian tier of the ballot paper (SMD or candidate vote); another vote is for a national party on the proportional tier (PR or party vote). Voters are said to cast a *straight* ticket if they vote for the local candidate of the same party for which they cast their proportional vote; otherwise, they are said to cast a *split* ticket.

The combination of the two rules, majoritarian and proportional, renders mixed systems interesting for studying the influence of electoral institutions on voting behaviour generally and strategic voting in particular. In fact, the two electoral rules offer voters (as well as party elites) different strategic incentives, the consequences of which can be studied in isolation from the influences of the social context (Moser and Scheiner, 2004; Herron and Nishikawa, 2001; Plescia, 2016).

An extensive literature has studied the strategic incentives that play a role in the two parts of the ballot paper. In particular, the literature focused on explaining the extent to which voters split their ticket intentionally to influence the electoral outcome. On the majoritarian tier of the ballot paper, voters face strong incentives to strategically avoid wasting their vote on candidates unlikely to gain representation, in line with the wasted-vote hypothesis (e.g., Bawn, 1999; Karp et al., 2002); on the proportional tier, supporters of large parties face strategic incentives to vote for a small party that is included in an expected coalition in order to make a preferred coalition as a whole succeed, in line with the threshold-insurance hypothesis (e.g., Gschwend, 2007; Bowler et al., 2010). Hence, split ticket voting is commonly used as a measure of strategic voting, as splitters are assumed to express their true preference in one vote but vote strategically in the other.

The current literature on vote choice under mixed rules defines sincere and strategic voting in terms of the action voters take rather than in terms of how voters reach a certain voting decision. Abramson et al. (2010) use the term *strategic scrutiny* to refer to the assumption that voters consider how their vote choices influence policy outcomes and *tactical voting* referring to instances in which a voter does not cast a vote for his or her most preferred competitor. The distinction between strategic scrutiny and tactical voting is very important under mixed rules, where observed patterns of straight and split-ticket voting may be consistent with both strategic and sincere voting hypotheses. Therefore, while it is often tempting to consider split-ticket voting as strategic, in line with the wasted-vote or threshold-insurance voting, voters may also split sincerely when they have separate preferences for parties and

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candidates (e.g., Karp et al., 2002; Moser and Scheiner, 2005). On the opposite, straight-ticket voting, which is often considered a sign of sincere voting, can be strategic when, for instance, an adherent of a very small party that has no chance of entering the parliament may decide to cast a strategic straight ticket for a larger party (as recognized in Pappi and Thurner, 2002).

Most of the existing analyses of vote choice under mixed systems are based on the assumption that "a general party preference is the yardstick for both the party and the candidate vote" (Pappi and Thurner, 2002: 2014). Hence, in current studies the voter is defined as a supporter of a specific party, whose vote choice on both tiers can then be analysed to see if the voter follows that party or not. The assumption that voter choice under mixed systems is guided exclusively by party preferences is problematic. In reality, under mixed rules voters are asked to vote simultaneously for parties and candidates, and we should recognize that some voters may start by choosing a majoritarian candidate and follow the candidate to a party with their PR vote. Given the changes that have taken place in many party systems over the past twenty years (e.g., Dalton, 2000), one has to acknowledge the existence of many non-aligned or loosely-aligned voters, whose vote choice may be influenced by who is running on the majoritarian tier.

In keeping with the important distinction in Abramson et al. (2010), the first aim of this study is to distinguish empirically split-ticket voting from tactical voting and straight voting from sincere voting, thereby dampening the expectation that voters' support for the various candidates is guided by their party preferences and linking theoretical concepts to empirical data. The second aim of this paper is to find out what share of the vote cannot be explained by sincere voting behaviour but can be explained by apparent strategic scrutiny across the two tiers of the ballot paper. To this end, the paper uses an abundance of survey data on the preferences of voters regarding both parties and candidates contesting the elections. In addition, the paper for the first time employs a comparative approach to identify how institutional and non-institutional factors might influence vote choice. We focus on Germany, Japan and New Zealand. The analysis clearly shows that split-ticket and strategic voting on the one hand and straight and sincere voting on the other are different (empirically). It also shows that the two votes are cast differently by voters with party preferences influencing the PR vote more than the SMD vote, which, conversely, appears to be highly candidate-centred especially in Japan and New Zealand.

The present study is important not only because it examines vote choice under a widely used set of electoral rules, but also because it makes a more general contribution to the study of strategic voting, namely about what can and cannot be inferred by simply observing vote choice. The rest of the paper is split up in three parts. The following two sections review the literature and elaborate a series of theoretical propositions that describe the conditions in which sincere and strategic voting are most likely to be found. The paper then presents the data, the cases of study and the empirical tests. The final section concludes the study.

2. Literature review: sincere and strategic voting

Sincere voting describes a situation in which an individual casts a vote for the preferred party or candidate irrespective of expectations about the election outcome (e.g., Fisher, 2004). The question of what makes certain parties more attractive than others has been addressed for a long time. Put simply, preferences for parties can be based on affective social identifications (Campbell and Miller, 1957) or, in a Downsian world of rational political behaviour (Downs, 1957), they might be based on ideology and policy preferences. How about candidates? One could assume that voters' support for the various candidates is guided by their party preferences but deviations from this could be expected where candidate appeals may be in conflict with that for parties. There are many ways in which candidate appeal can become salient; perhaps the most widely recognized is incumbency (Banducci et al., 1998; Burden and Kimball, 2004). The more incentives and opportunities there are for candidates to personalise their links with voters, the more likely it is that preferences for party and candidate may conflict in the mind of the voter (Marsh and Plescia, 2016).

The notion of the personal vote refers to the part of a legislator's vote that is based on his or her individual characteristics or record (Cain et al., 1987).[1] Hence, the identity of the local representative is valued in itself, above and beyond the balance of party forces in the legislature (Cox, 1997: 81): either voters simply value the personal identity of the candidate or, in the absence of preference for a candidate as such, they may wish to have a local representative that shares their ideological beliefs (Karp et al., 2002). Carey and Shugart (1995) explain how under certain electoral systems, individual candidates have a strong incentive to develop a personal following. Such stimuli would be higher where the vote is cast for a candidate and not a party and where that vote had a significant effect not just on which parties won seats but on which candidates did so (Shugart et al., 2005). Ultimately, the more candidate-centred the voter, the less easily is her vote predicted by a conventional model of electoral behaviour, one that emphasizes parties (Marsh, 2007).

Conversely, strategic voters are those who are primarily concerned with expectations about how parties or candidates will perform at the elections. Cox (1997: 194) develops and organizes these expectations by outlining two different strategic incentives: the classical wasted-vote and the threshold-insurance strategic voting.[2] The wasted-vote, i.e. the vote for a larger party when the one preferred by the voter is at risk of not being represented in parliament, has been extensively examined (e.g., Blais et al., 2005; Alvarez and Nagler, 2000; Franklin et al., 1994). Threshold-insurance strategic voting instead has recently been gaining attention: this second type of strategic voting occurs when supporters of large parties vote for a small party that is part of an expected coalition in order to make the coalition as a whole succeed (e.g., Blais et al., 2006; Bargsted and Kedar, 2009; Meffert and Gschwend, 2010). While the wasted-vote is more common under majoritarian systems, threshold-insurance strategic voting can perhaps be seen more often in proportional systems where there is an electoral threshold and a history of coalition governments (Fredén, 2014).

3. Previous findings in mixed systems

Mixed systems are of particular interest to the study of strategic voting since they provide substantial opportunities for voters to act strategically (Bowler and Farrell, 1995). Furthermore, given that voters cast two votes, the two types of strategic voting, i.e. the wasted-vote and the threshold-insurance, are equally and concurrently possible under these systems. Initial analyses under mixed rules showed that at the aggregate level, small parties receive more votes in the proportional than they do in the majoritarian tier of the ballot paper; conversely, large parties perform much better on the

[1] In line with most existing studies under mixed rules (e.g., Karp et al., 2002; Moser and Scheiner, 2005, 2009) we regard candidate-centred voting as expressive and non-strategic.

[2] In fact, Cox (1997) outlines several more strategic incentives. Here however, we only consider the two incentives that are most commonly examined in the literature on mixed systems.

SMD than on the PR tier (Fisher, 1973). The regularity of these differences made earlier observers conclude that the wasted-vote hypothesis holds in Germany, where split-ticket voting has been most closely examined. Jesse (1988) was the first one to raise the point that tickets might be split for quite irrational reasons. Following this contention, Schoen (1999) found that between 1953 and 1990, no more than half of the tickets in Germany were split rationally. Some scholars have put forward suggestions that voters may be confused by the structure of the ballot paper (Cox and Schoppa, 2002). These concerns, however, have not been borne out in the subsequent empirical literature in Germany and elsewhere (e.g., Bawn, 1999; Karp et al., 2002; Karp, 2006).

Even if the initial literature understood split-ticket voting mainly as a wasted-vote strategic phenomenon, several scholars in the past have already pointed out that voters could split in support of a specific coalition government being formed after the elections (Roberts, 1988). More recently, Gschwend (2007) found that in 1998 in Germany, supporters of the larger Christian Democratic Union (CDU)/Christian Social Union (CSU) voted strategically for the Free Democratic Party (FDP) on the PR ballot to increase the chance of a government coalition between the CDU/CSU and the FDP. Existing studies usually find evidence of threshold-insurance voting despite only a small amount of voter defection from the preferred party is in line with this hypothesis in Germany (Pappi and Thurner, 2002), New Zealand (Bowler et al., 2010) and Scotland (Carman and Johns, 2010).

The two competing hypotheses, i.e. the wasted-vote and the threshold-insurance, lead to the same observed vote choice: a split-ticket vote for a big party on the SMD and a small party on the PR. However, while the wasted-vote literature assumes that voters act strategically on the SMD and sincerely on the PR, in the study of threshold-insurance voting "voters are assumed to cast their district vote for their sincere first preference and the PR vote strategically for their preferred party's junior coalition partner. […] Thus, we cannot decide, prima facie, which kind of strategic voting is being observed in a split ticket" (Shikano et al., 2009: 637).

The same observed split-ticket behaviour is also compatible with sincere voting as voters may simply like a party and a candidate that happens to run for another party (Gallagher, 2001).[3] The possibility that voters hold separate preferences for parties and candidates, might not only be true in systems where candidates are a critical variable like in Japan (Burden, 2009), but also in those countries where the party system remains in an embryonic state or where many voters are non-aligned (McAllister and White, 2000; Kostadinova, 2002; Moser and Scheiner, 2005, 2009). Even in extremely party-oriented electoral systems such as the German one, there is increasing evidence of personal campaigning by candidates, and of attempts "to approach potential voters in an individual way" (Wüst et al., 2006: 428).

In New Zealand, Karp et al. (2002) admit that split-ticket voting in several districts may be driven by misalignment between candidate and party preferences. Moser and Scheiner (2005: 272–274) confirm this for several countries: the authors argue that strategic voting is potentially overestimated by the current literature because it fails to disentangle sincere from strategic split-ticket voting. Similarly, straight-ticket voting, which is often considered a sign of sincere voting, may instead be strategic if, for instance, an adherent of a very small party that has no chance of entering parliament decides to cast a strategic straight ticket for a larger party.

Several scholars have raised concerns regarding the approach that uses the categories of straight and split-ticket voting to study voting behaviour under mixed rules (see for instance the discussion in Shikano et al., 2009; Pappi and Thurner, 2002; Schoen, 1999); however, until now, limited data have meant that sincere and strategic voting could only be studied by means of observed behaviour. Specifically, survey respondents were only asked to rate the parties and their chances to obtain seats while no analogous questions were asked about the candidates. This fact compelled scholars to assume that voter support for various candidates was guided exclusively by party preferences (as also explained in Herrmann and Pappi, 2008: 233). This paper relies on a wealth of survey data and distinguishes between strategic and sincere voting based on the examination of voter preferences for both parties and candidates, rather than observed vote choice. How to change the measurement of the dependent variable and why this is important is explained via a hypothetical example.

4. Preferences versus observed behaviour

Sincere voting describes a situation in which the voter chooses the most preferred option from a set of alternatives. Given that on the proportional tier, citizens vote for parties and on the majoritarian tier they vote for candidates, in the context of this example, we define the vote as sincere when the voter chooses the most preferred party on the PR and the most preferred candidate on the SMD. *Sincere only on the PR* means that the voter chooses the most preferred party but not the most preferred candidate; *sincere only on the SMD* means that the voter chooses the most preferred candidate but not the most preferred party and, finally, *non-sincere* indicates that the voter is not picking the most preferred party nor the most preferred candidate.[4]

Note that voting against sincere preferences is not automatically regarded as strategic here; in fact, we use the term *non-sincere* rather than strategic vote when voters do not pick parties and candidates in line with their preferences. This decision is based on the fact that voting against sincere preferences is not a sufficient condition to define vote choice as strategic; indeed another condition must be met: the vote is strategic not when voters deviate from sincere preferences but when they do so to influence the election outcome (e.g., Fisher, 2004; Blais et al., 2006). In keeping with Abramson et al. (2010) we could use the term *apparent strategic scrutiny* to describe the pattern of non-sincere voting because our data cannot account for voters' expectations about the election outcome, which shape their incentives to vote strategically, making our evidence exclusively preference based.

Now, consider a hypothetical constituency contested by two parties (A and B), each nominating one candidate (A and B) as shown in Table 1. Let us assume that Party A is a large party while party B is a small party. Current studies measure sincere and strategic voting from observed patterns of vote choice. In line with the existing literature, Voter 1 would cast a straight sincere vote; Voter 2 is a case of strategic split and finally Voter 3 is a case of non-

[3] It may also simply be the case that some voters *must* split because their party is not running a candidate on the SMD tier of the ballot paper: a situation commonly faced by supporters of small parties. When surveys provide us with information on the district where the voter casts his or her vote a "forced" split can be easily identified. While we do not have space here to tackle this issue directly, it is worth mentioning that some of the seemingly strategic patterns we discuss below become less pronounced when we check for forced split-ticket voting. However, this does not substantially alter our conclusions.

[4] An alternative approach would be to rely on the idea that the vote is *party-centred*: hence, we would classify sincere and non-sincere voting by exclusively considering preferences for parties. The paper discusses this approach in the following sections.

Table 1
Straight and split-ticket voting when considering vote and preferences simultaneously: a hypothetical case of 3 voters and two parties, a larger party A and a smaller party B, each nominating a candidate.

Voter	Vote		Preferences		Voting	Patterns	
	PR	SMD	Party	Candidate	Observed	Electoral Calculus	Real vote choice
1	Party A	Candidate A			Straight	Sincere	
a			Party A	Candidat A			Sincere
b			Party A	Candidate B			Sincere only on PR
c			Party B	Candidate A			Sincere only on SMD
d			Party B	Candidate B			Non- sincere
2	Party B	Candidate A			Split	Strategic	
a			Party A	Candidate A			Sincere only on SMD
b			Party A	Candidate B			Non-sincere
c			Party B	Candidate A			Sincere
d			Party B	Candidate B			Sincere only on PR
3	Party A	Candidate B			Split	Non-Strategic	
a			Party A	Candidate A			Sincere only on PR
b			Party A	Candidate B			Sincere
c			Party B	Candidate A			Non-sincere
d			Party B	Candidate B			Sincere only on SMD

strategic split.[5] However, the risk of mismeasurement of sincere voting when looking only at vote choice becomes clear as soon as one considers simultaneously observed vote choice and true voter preferences.

Starting with the observed straight vote, Voter 1 can only be considered sincere when the voter actually favours the candidate affiliated with her most preferred party (Voter 1a); the remaining are cases of non-sincere straight vote. Categories b and c of Voter 1 represent voters who have separate preferences for parties and candidates but decide to cast a straight-ticket vote for either the most preferred party or the most preferred candidate's party. Only by having full access to voters' true preferences one is being able to recognize that Voter 1b is casting a sincere vote only on the PR whereas Voter 1c casts a sincere vote on the SMD only. Conversely, having access exclusively to preferences for parties may lead to classify both Voters 1b and 1c in the same category of sincere straight voters. We find nearly 13 per cent of Voter 1b in Germany and almost 10% in Japan and about 8% in New Zealand; also we find at least 3% of Voter 1c in each of the three countries. Straight votes can also be completely non-sincere for instance, when supporters of a (very) small party decide to vote for a larger alternative on both tiers of the ballot paper (Voter 1d). In the countries under scrutiny in this paper, we find roughly 2% of Voter 1d in Germany and about 1% in Japan and New Zealand.

Moving to split-ticket voting, Voter 2 chooses a small party on the PR and a big party on the SMD. This vote would be classified by the existing literature as a strategic split given that it conforms simultaneously to a strategic candidate and/or strategic party vote. Conversely, Voter 3 is an example of random split-ticket voting, since the vote for the small party's candidate B on the SMD may be regarded as wasted. Yet again, knowledge of the true party and candidate preferences would enable us to capture that, at least part of the strategic split (Voter 2) and of the non-strategic split (Voter 3), may simply be due to sincere voting. This applies to all cases where voters favour a candidate not affiliated with the most preferred party (Voter 2c and Voter 3b). There are roughly 2% of Voter 2c in Germany and about 1% in Japan and New Zealand; about 3% of Voter 3b in Germany, 2% in New Zealand and less than 1% in Japan. We also find about 3% of Voter 3c in each of the three countries.

[5] We avoid discussing the case of a voter who votes for Party B and Candidate B since in this case voting considerations would replicate exactly those of Voter 1, i.e. straight sincere vote.

In addition, by having access only to party preferences, one is unable to distinguish voters in the category labelled here as sincere only on the PR (Voter 2d) from voters being sincere only on the SMD (Voter 2a). We find low levels of these voters across all countries (below 2%) except for Voter 2b in Germany who accounts for about 3% of the vote.

To sum up, this example shows that potentially current analyses of split-ticket voting might be underestimating strategic voting, because strategic voters can also be found among straight voters. At the same time, the literature likely overestimates strategic split-ticket voting, since split-ticket voting can simply be a result of voters voting for candidates rather than for parties on the SMD tier. Classifying sincere and strategic voting from observed behaviour and failing to acknowledge the distinction between strategic scrutiny and strategic voting may result in a severely limited view of vote choice in mixed systems. Specifically, not accounting for the empirical presence of alternative sincere and strategic voting motivations entails measurement error in the actual identification of both sincere and strategic voters. We analyse below how large this error is; first, however, we briefly present the data.

5. Data and cases of study

We use Germany, Japan and New Zealand to empirically distinguish sincere and apparent strategic voting from straight and split-ticket voting as well as to study the extent to which preferences explain vote choice in the two tiers of the ballot paper. Of all mixed systems that have extant surveys, the 2009 German Election Study and the 2003 Japanese Election Study are, to our knowledge, the only ones that include a pre-electoral wave that asks voters about preferences for both candidates *and* parties running for elections. The use of pre-electoral data allows us to measure the independent variables of interest before the elections take place. This reduces the problem that responses given after the elections are more likely to be affected by the election results. The 2005 New Zealand Election Study includes questions on preferences for parties and candidates but in this case we only have post-electoral data. Importantly, questions on preferences have been asked similarly in three countries. In other mixed systems respondents are only asked to rate parties but not to rate the candidates according to the same criteria.

Germany and New Zealand are almost pure systems of proportional representation where the PR works to create overall proportionality in the electoral outcome. By contrast, in mixed-

Table 2
Dependent variables distribution, columns %.

		Vote		Preferences		Germany	Japan	NZ
		PR	SMD	Party	Candidate			
Split-ticket voting								
0	Straight-ticket vote	Party A	Party A			77.1	81.2	76.8
1	'Supposedly strategic' split	Party A (small party)	Party not A (big party)			11.8	9.6	10.8
2	'Supposedly non-strategic' split	Party A	Party not A			11.1	9.2	12.4
Party-centred vote								
0	Sincere vote	Party A	Party A	Party A		81.0	82.2	78.1
1	Sincere only on PR	Party A	Party not A	Party A		6.6	9.8	13.1
2	Sincere only on SMD	Party not A	Party A	Party A		6.3	3.2	3.9
3	Non sincere	Party not A	Party not A	Party A		6.1	4.8	4.8
Party/candidate-centred vote								
0	Sincere vote	Party A	Candidate A	Party A	Candidate A	68.5	79.6	79.2
1	Sincere only on PR	Party A	Candidate A	Party A	Candidate not A	19.1	12.3	12.0
2	Sincere only on SMD	Party A	Candidate A	Party not A	Candidate A	8.7	6.9	6.9
3	Non sincere	Party A	Candidate A	Party not A	Candidate not A	3.6	1.2	1.8
N						857	1021	2412

Notes: Own elaboration from data available at http://www.gesis.org/en/home/for Germany, at http://ssjda.iss.u-tokyo.ac.jp/en/for Japan and at http://www.nzes.org/exec/show/data for New Zealand. Weighted data for Germany and New Zealand.

majoritarian systems like Japan, the two tiers of the electoral system are completely separate in regards of the allocation of seats, a provision that strongly limits the proportionality of the system. The tiers' combination has the potential of influencing vote choice by altering the incentives citizens face when casting their vote. In mixed-proportional systems, a candidate vote is less important to the outcome of the elections; it has therefore been argued that the perceived costs of a strategic SMD vote are lower in mixed-proportional than in mixed-majoritarian systems (Gschwend, 2007: 10). Everything else being equal, one should thus observe more strategic SMD votes in Germany and New Zealand than in Japan. Secondly, parties in mixed-majoritarian systems have a much stronger incentive to focus on winning as many SMDs because each district seat they win will be added onto the national party seat total. Insofar as more customized campaigning will be likely to increase the number of SMD votes that a candidate receives, parties will have incentive to encourage their SMD candidates to behave more personalistically (Moser and Scheiner, 2005). Consequently, personal voting is expected to be higher in these systems when compared to mixed-proportional systems.

6. Sincere versus straight voting and non-sincere versus split voting

The common dependent variable in studies of vote choice under mixed systems is a dummy variable which takes a value of '0' when voters choose a party and the affiliated candidate and '1' otherwise (e.g., Schoen, 1999; Cox and Schoppa, 2002; Carman and Johns, 2010). A few subsequent studies have differentiated the category of splitters into separate groups. For instance, Gschwend (2007) differentiates between those casting a 'supposedly strategic' split (i.e. choosing a small party on the proportional and a large party on the majoritarian tier) and all other splitters defined as 'supposedly non-strategic'. Karp et al. (2002) instead focus on split-ticket voting between ideologically close parties.[6] The upper part of Table 2 shows that the majority of voters cast straight votes; ticket-splitting of both kinds is higher in Germany and New Zealand than in Japan. In addition, splitters are almost equally distributed into 'supposedly strategic' and 'supposedly non-strategic' splitters.

The 'new' dependent variables measure vote choice by directly looking at voter preferences. To this end, we rely on a common method that utilizes available feeling thermometer data for the parties (or candidates) to create an individual-level ranking of each of the competitors. We assume that the party (or candidate) ranked highest using the feeling thermometers is the respondent's favourite option. Sincere voters intend to vote for their favourite option. The first new dependent variable, denoted here as *party-centred vote*, classifies sincere and non-sincere voting by considering only preferences for parties. This variable takes a value of 0 for *sincere voting*, that is, when a voter chooses his or her top party on the PR *and* on the SMD. The party-centred variable takes a value of 1 when the voter chooses the top party on the PR but not on the SMD; a value of 2 when the voter chooses the top party on the SMD but not on the PR and, finally, a value of 3 when the voter does not choose the top party on either tiers of the ballot paper. To identify the *top party*, the paper employs a 10-point scale ranging from strongly dislike to strongly like and identifies the highest-rated party as the top party.[7] When voters favour more than one party in equal measure they are regarded as sincere when they support either of these parties.[8] Thermometer rankings are useful since they are asked in exactly the same manner in Germany, Japan and New Zealand. Table 2 shows that when using the party-centred vote variable, the majority of voters are sincere on both tiers. Sincere only on the PR is the most common second choice in Japan and New Zealand but not in Germany, where about the same percentage of voters is sincere with only one of the two votes. At least 5% of voters in each country are not sincere with either vote.

The second new dependent variable, denoted here as *party/candidate-centred vote*, considers preferences for both parties and candidates. This variable takes a value of 0 for *strictly sincere voting*,

[6] In line with common practice, we exclude voters who cast a vote solely for a party or solely for a candidate from the analysis; these voters represent less than 5% of the sample included in the election studies at hand.

[7] The implicit assumption here is that responses to these questions elicit sincere preferences: an assumption that is sometimes judged as dubious (Alvarez and Nagler, 2000). A possible alternative would be to use (multinomial) logit to obtain a cardinal measure of expected utility based on the ordinal measure of several voting determinants (Alvarez and Nagler, 2000; Blais et al., 2005). Another approach would be the one proposed by Shikano et al. (2009) where rank-ordered logit is used to estimate a party's utility function for each voter. However, these approaches are not compatible with the data at hand since not all election studies include the variables needed to calculate party's utility, such as left and right party placements.

[8] Respondents who gave a score of 0 to all parties are classified as having no clear party preference and are thus excluded from the analysis (i.e., 4 respondents in New Zealand (0.1%), 24 in Germany (<2%) and 8 in Japan (0.1%)).

that is, when the voter chooses his or her top party on the PR *and* his or her top candidate on the SMD. The party/candidate-centred vote variable takes a value of 1 when the voter chooses the top party on the PR but not the top candidate on the SMD; a value of 2 when the voter chooses the top candidate on the SMD but not the top party on the PR and, finally, a value of 3 when the voter does not choose the top party nor the top candidate. The top party is identified as explained above. To identify the *top candidate*, we employ a 10-point scale ranging from strongly dislike to strongly like that is similar to the one asked for parties; the top candidate is thus the one rated highest by voters.[9] The lower part of Table 2 shows that when looking at both preferences for parties and candidates, the sincere vote declines sharply in Germany. There, about 19% of voters are sincere only on the PR and 9% only on the SMD while for Japan and New Zealand these percentages are 12% and 7%.[10] Complete non-sincere vote decreases much more in Japan and New Zealand than in Germany.

Table 3 shows the relationship between the party-centred and party/candidate-centred vote variables. This allows us to examine the extent to which one is likely to overestimate or underestimate sincere voting when considering only preferences for parties. Starting with Germany, the results in Table 3 indicate that looking only at party preferences leads to an overestimation of sincere voting. In Germany, 81% of the votes appear to be sincere if we look at preferences for parties; however, sincere voting would decrease by more than 15 percentage point if preferences for candidates were also considered. Similarly, there is an overestimation of sincere voting in Japan and New Zealand if we look only at parties but now the overestimation is lower (11 and 9 percentage points respectively). Furthermore, there seems to be a misclassification of sincere voting and fully non-sincere voting in all three countries. To be specific, 15.4% of voters in Germany, 10.9% in Japan and 8.8% in New Zealand are classified as sincere when only accounting for party preferences, when they are actually only casting a sincere vote on the PR. Moreover, 2.9% in Germany, 8.3% in Japan and 9.9% in New Zealand are only classified as sincere on the PR when they are actually casting a sincere vote on both tiers of the ballot paper; and 1.7% in Germany, 0.3% in Japan and 0.7% in New Zealand are only classified as sincere on the SMD when they are fully non-sincere. Finally, 4.1% in Germany, 3.9% in Japan and 3.7% in New Zealand are considered as fully non-sincere when accounting only for party preferences when they are actually casting a sincere vote on the SMD. In sum, accounting only for party preferences leads to a conspicuous misclassification of sincere versus non-sincere voting in all three countries, i.e., 24.1% in Germany, 23.4% in Japan and 23.1% in New Zealand.

Table 4 shows the relationship between the party-centred and party/candidate-centred vote variables and split-ticket voting. Starting with the first half of Table 4, the overwhelming majority of straight voters are sincere (about 94% across all three countries) if only party preferences are considered; similarly, the majority of split-ticket voting appears to be non-sincere with at least one vote. Notwithstanding this, more than 44% of 'supposedly strategic' split-ticket voting in Germany, 31% in Japan and 21% in New Zealand appear to be sincere. This could mean that voters favour more than one party in equal measure and their splitting across the two parties might be sincere. Interestingly, there is more fully non-sincere voting among straight voters than among splitters in Japan. The picture looks very different when one takes into account preferences for both parties and candidates: the second part of Table 4 indicates that the percentage of the sincere straight vote is now lower than before in all countries but especially in Germany. In Japan and New Zealand but not in Germany, the percentage of sincere split-ticket voting is much higher (see the last two columns of Table 4).

Taken together, these results clearly suggest two conclusions. First and foremost, they show that split-ticket voting is different from non-sincere voting and straight voting is different from sincere voting. Secondly, it appears that by considering preferences for parties only, we overestimate the non-sincere vote in countries like New Zealand, where many voters appear to cast sincere split votes, probably due to a misalignment of preferences for candidates and parties. At the same time, we underestimate non-sincere voting in countries like Germany to some extent also in Japan, where many voters can be seen to desert the preferred candidate while still appearing to "stick" with one of the top parties in both tiers of the ballot paper. Ultimately, this indicates that vote choice is more party-centred in Germany when compared to New Zealand where the vote on the SMD appears more candidate-centred.

7. Evidence of apparent strategic scrutiny in vote choice

In this final section, we seek to answer the following questions. First, what share of the vote cannot be explained by sincere voting behaviour but can be explained by apparent strategic scrutiny? Second, are there similarities in how useful the strategic scrutiny assumption is in explaining vote intentions across the two tiers of the ballot paper? In keeping with Abramson et al. (2010), to consider the extent to which voters act sincerely, we compare voters' preferences for a party and a candidate with their (intended) vote. If all respondents vote sincerely, all observations would fall on the main diagonal. If, however, the vote is scattered, we carefully consider whether or not these patterns conform to apparent strategic scrutiny. Following Niou (2001), we assume that tactical voting only involves deviations from minor parties' candidates to competitive candidates, in the context of the SMD ballot.[11] Tactical

[9] In New Zealand the questionnaires sent by post asked respondents: "Regardless of the parties they were standing for, and their chances of getting elected, how did you feel on election day about the candidates who stood in your electorate?". Among the respondents that cast both votes, only 2% score only candidates from the two main parties and about half of the respondents simultaneously score the candidates from all contesting parties. In Germany and Japan, respondents were asked face-to-face "Do you know the name of one or even several of the local constituency candidates?" After mentioning the candidate(s)' name(s), respondents were asked for each of the mentioned candidates "Please express your feeling toward the candidate". In Germany among the respondents that cast both votes, about 20% did not mention any candidate, among the remaining, 36% mentioned one candidate, 28% two candidates, and the rest 3 candidates or more. In Japan, the rates of those that did not remember any candidate is lower than in Germany (11%), but the rest of the patterns are rather similar. The difference between Germany and Japan in those who do not remember any candidate is possibly because Japanese respondents were presented with a list of names of candidates to help them remember. For all countries, respondents who did not remember any candidate were excluded from the analysis. We believe that this exclusion is not problematic for two main reasons. First, the variation in the scores given to candidate(s) is rather good: for instance, in Germany about 30% of the respondents gave to the first mentioned candidate a score of 3 or lower (using the dislike-like scale from 0, dislike to 10, like), another 30% used scores of 4, 5 or 6 and about 40% of the respondents used higher scores. We found similar variations in Japan and New Zealand. Second, as a test we re-created the same tables presented in this paper by including the respondents who did not rate any candidate but assuming that they always prefer the candidate endorsed by the top party. The results are reported in the Supporting material and indicate that substantive conclusions are robust to this exclusion.

[10] Recall that for Japan and Germany we look at vote intentions (like Gschwend, 2007 for instance); it is worth mentioning however, that using actual vote choice does not alter the main results. For New Zealand we only look at vote choice given that pre-electoral data are not available in this context.

[11] The main parties in Germany that had clear chance of winning SMDs are the CDU and the SDP. In New Zealand they are the Labour and the National parties, while in Japan they are the LDP and the DPJ parties.

Table 3
Sincere and strictly sincere voting, total %.

Party/candidate-centred vote	Party-centred vote				
	Sincere vote	Sincere only on PR	Sincere only on SMD	Non sincere	N
			Germany		
Sincere vote	65.6	2.9	0	0	587
Sincere only on PR	15.4	3.7	0	0	164
Sincere only on SMD	0	0	4.7	4.1	75
Non sincere	0	0	1.7	2.0	31
Observations	694	57	54	52	857
			Japan		
Sincere vote	71.3	8.3	0	0	813
Sincere only on PR	10.9	1.5	0	0	126
Sincere only on SMD	0	0	2.9	3.9	70
Non sincere	0	0	0.3	0.9	12
Observations	839	100	33	49	1021
			New Zealand		
Sincere vote	69.3	9.9	0	0	1910
Sincere only on PR	8.8	3.2	0	0	290
Sincere only on SMD	0	0	3.3	3.7	168
Non sincere	0	0	0.7	1.2	44
N	1885	315	96	116	2412

Table 4
The relationship between sincere and non-sincere and straight and split-ticket voting, columns %.

		Split-ticket voting								
		0 Straight ticket; 1 'Supposedly strategic' split; 2 'Supposedly non-strategic' split								
		Germany			Japan			New Zealand		
		0	1	2	0	1	2	0	1	2
Party-centred vote										
0	Sincere vote	93.6	44.7	32.4	94.4	30.6	27.7	95.1	21.4	22.5
1	Sincere only on PR	0	28.6	29.2	0	59.2	44.7	0.0	59.9	53.0
2	Sincere only on SMD	0	24.1	31.3	0	9.2	25.5	0.0	12.9	20.8
3	Non sincere	6.4	2.7	7.1	5.5	1.0	2.1	4.9	5.7	3.7
Party/candidate-centred vote										
0	Sincere vote	77.4	39.7	37.4	82.0	71.4	67.0	84.9	59.2	60.7
1	Sincere only on PR	16.2	33.6	24.2	12.4	18.4	5.3	10.2	22.1	14.8
2	Sincere only on SMD	4.5	16.7	29.8	4.5	8.2	26.6	3.9	11.1	22.1
3	Non sincere	1.9	10.0	8.6	1.0	2.0	1.1	0.9	7.6	2.4
N		660	101	95	829	98	94	1852	262	298

voting, in the context of PR, would instead work at the disadvantage of major parties and in favour of a potential junior coalition partner, as previously discussed (Gschwend, 2007).

7.1. Germany

Let us start with Germany and Table 5. Considering preferences for parties first (that is the upper part of Table 5), values on the diagonal are far from 100% (even considering some level of error), and this is true for both the PR and the SMD vote. Values on the diagonal are slightly higher for large parties (i.e., CDU and SPD) than for smaller parties (i.e., FDP, Greens and Die Linke). However, the differences between big and small parties (assessed using a simple difference of proportions test) are only statistically significant on the SMD vote and for the FDP party for both votes. Furthermore, if we compare the values on the diagonal for each party separately, on the PR and the SMD the results are not statistically significantly different. Moving to the lower part of Table 5 and the preferences for candidates, in this case, the differences between bigger and smaller parties are, again, only significant for the FDP party. To sum up, both groups of parties' supporters appear to deviate from sincere voting and equally so on both tiers of the ballot paper. Interestingly, party preferences explain both votes better than candidate preferences and this is true across both groups of parties, a result that confirms the intuition from the previous analysis with regard to the highly party-centred vote in Germany.

Now, focusing on the off-diagonal values. Tactical voting in the SMD tier involves deviations from minor candidates to competitive candidates. Table 5 shows that a conspicuous amount of those who preferred an FDP candidate the most moved to a CDU candidate. Similarly, those who preferred a candidate from the Greens party the most moved, to a larger extent, to the SPD party. More can be said by looking exclusively at those constituencies that are only competitive for the two main parties. To this end, we only consider competitive constituencies, i.e., those with less than 5% differences in the votes gained by the CDU and the SPD candidates in the previous elections, and where there was a clear two-party competition between only the two largest parties.[12] In these constituencies especially, we should clearly see a movement of voters with a preference for one of the minor parties' candidates, i.e., FDP, Greens and Die Linke, to switch to a candidate of the largest parties, if they do not want to waste their vote (Bawn, 1999). Focusing on candidate preferences, Table 6 shows clear patterns of deviation for

[12] Although it is not unproblematic, effective electoral results are usually employed as a measure of objective electoral chances when direct measurements of voters perceptions are not available (e.g., Blais et al., 2001; Gschwend, 2007).

Table 5
How respondents voted, by favourite candidate and party, Germany 2009.

	PR Vote					SMD Vote					N
	CDU	SPD	FDP	Greens	Die Linke	CDU	SPD	FDP	Greens	Die Linke	
Highest PARTY preference											
CDU	**87.5**	5.1	6.8	0.4	0.3	**92.9**	4.7	1.6	0.8	0.0	265
SPD	0.8	**91.5**	2.1	2.7	2.9	2.9	**92.6**	1.7	1.7	1.2	167
FDP	21.1	3.8	**71.4**	3.8	0.0	27.7	2.8	**68.5**	0.0	0.9	74
Greens	1.1	7.6	3.1	**86.7**	1.5	6.5	13.3	0.0	**77.9**	2.3	91
Die Linke	3.2	8.5	4.2	0.7	**83.4**	1.8	12.8	1.4	3.9	**80.1**	97
Highest CANDIDATE preference											
CDU	**76.6**	5.5	10.3	6.1	1.5	**80.8**	6.3	5.9	5.8	1.2	301
SPD	5.9	**72.9**	3.2	9.5	8.5	9.6	**77.4**	1.0	5.6	6.9	257
FDP	27.9	4.6	**61.2**	5.8	0.6	41.2	4.6	**53.7**	0.0	0.6	60
Greens	1.5	12.5	11.0	**67.1**	7.9	4.5	12.5	5.0	**73.0**	4.9	68
Die Linke	3.5	6.2	3.1	7.6	**79.6**	3.5	6.2	1.3	10.8	**78.2**	76

Key to parties: Christian Democratic Union (CDU), Social Democratic Party (SPD), Free Democratic Party (FDP), Greens, Die Linke.
Bold diagonal values indicate sincere voting.

Table 6
How respondents voted, by favourite party and candidate (marginal seats only), Germany 2009.

Highest CANDIDATE preference	SMD Vote					N
	CDU	SDP	FDP	Greens	Die Linke	
CDU	**87.9**	7.4	4.7	0.0	0.0	61
SDP	9.6	**84.3**	0.0	0.0	6.1	47
FDP	33.4	0.0	**64.5**	0.0	2.1	18
Greens	9.0	30.3	0.0	**54.6**	6.1	13
Die Linke	0.0	7.0	0.0	6.5	**89.5**	23

Note: The table only includes marginal seats for the CDU and the SPD where the difference in vote between the winner and the first loser in the previous election is less or equal to 5%.
Bold diagonal values indicate sincere voting.

the FDP candidate supporters towards the CDU candidate, and the same holds true for the Green candidate supporters towards the SPD candidate. However, the patterns are less clear for those who prefer the Die Linke candidate.

Tactical voting on PR would, instead, work at the disadvantage of major parties and in favour of a potential junior coalition partner: in Germany, CDU and SPD supporters acting strategically are expected to cast strategic PR votes for the FDP and Greens party, respectively, to favour a CDU-FDP or SPD-Greens coalition. Table 5 shows no clear pattern in this regard when one considers the PR vote: those who defect from a preferred CDU party vote tend to vote almost equally for the FDP and the SPD in the PR vote. Similarly, for the SPD, we see a movement towards the Greens but almost equally to the FDP party. To investigate these patterns further, we consider only those respondents with a highest preference for a CDU-FDP coalition or for a SPD-Greens coalition.[13] Table 7 shows that those with the highest party preference for the CDU exclusively deviate to the FDP party on the PR vote when clearly preferring a CDU-FDP coalition. Table 7 also indicates that those with the highest party preference for the SPD exclusively deviate to Greens when preferring a government coalition between the SPD and the Greens. Yet, Table 7 also shows that a not negligible number of small party supporters deviate to a large party in the PR vote. As explained by Gschwend (2007), a strategic PR vote is most likely if major party supporters are unsure whether the small coalition partner can overcome the threshold of representation. Given that the small parties considered in this analysis were rather likely to enter the parliament,[14] it is possible that their supporters are choosing to vote for the major coalition partner to ensure it wins the elections and, hence, increase the chances the most preferred senior–junior coalition will form after the election.

7.2. Japan

Moving to Japan and Table 8, values on the diagonals are generally higher for bigger parties (i.e., LDP and DPJ) when compared to smaller ones (i.e., CGP, SDP and JCP); however, these differences are only statistically significant for the CGP and the SDP parties. At the party level, differences between the PR and SMD vote are statistically significant for all parties except the larger LDP. Again, voters who prefer small parties are less likely to vote for their preferred party under SMD than those who prefer big parties, but the differences are smaller under the PR vote. Furthermore, voters who prefer the candidates of small parties are only slightly less likely to vote sincerely under SMD than voters under PR who prefer small parties. Overall, the results suggest that the two votes in Japan are cast differently by voters. Indeed, party preferences weigh more on the PR vote when compared to candidates' preferences that explain the SMD vote better.

Now, focusing on the off-diagonal values, starting with the SMD vote, the largest deviation from a sincere candidate vote for those who prefer a small party candidate the most, i.e., CGP, SDP or the JCP, is toward a candidate with better chances from the LPD or the DPJ party. Focusing on just the competitive constituencies between the LDP and the DPJ party, Table 9 shows that the number of those who prefer a small party candidate in these constituencies is very low and they tend to remain loyal to their candidate, with an exception made for the JCP supporters. Moving to the PR vote, the only two parties committed to form a coalition after the election were the LDP and the CGP (Reed, 2005). Table 10 exhibits a clear movement of voters from the LDP to the CGP party in the PR vote compared to Table 8, yet, the patterns do not fully conform to a strategic voting hypothesis on the PR, since a similar amount of LDP supporters switch to the DPJ party on the PR. In sum, the results indicate that apparent strategic scrutiny is smaller in Japan than it is in Germany.

[13] As for parties and candidates, we use available feeling thermometer data for coalition options to create an individual-level ranking of coalitions. We assume that the coalition ranked highest using the feeling thermometers is the respondent's favourite option.

[14] In fact, almost all German respondents are either sure or very sure that the FDP and the Greens will enter the Parliament after the elections.

Table 7
How respondents voted, by favourite party and coalition preference, Germany 2009.

Highest PARTY preference	Preference for CDU-FDP coalition						Preference for SPD-Greens coalition					
	PR Vote					N	PR vote					N
	CDU	SDP	FDP	Greens	DieLinke		CDU	SDP	FDP	Greens	DieLinke	
CDU	**91.0**	0.0	9.1	0.0	0.0	170	**33.3**	66.7	0.0	0.0	0.0	2
SDP	0.0	**60.0**	0.0	40.0	0.0	3	0.0	**92.1**	0.0	8.0	0.0	68
FDP	19.8	0.0	**80.2**	0.0	0.0	47	0.0	0.0	**100.0**	0.0	0.0	1
Greens	75.0	0.0	0.0	**25.0**	0.0	3	0.0	9.2	0.0	**90.8**	0.0	44
Die Linke	29.9	0.0	20.3	0.0	**49.8**	3	0.0	18.0	0.0	0.0	**82.0**	4

Note: The table only includes respondents who had a clear top preference for a post-election government coalition formed by either the CDU and the FDP or the SPD and the Greens.
Bold diagonal values indicate sincere voting.

7.3. New Zealand

Moving to the New Zealand case, Table 11 shows that New Zealand resembles the German case in providing more evidence for non-sincere voting than the Japanese case on both tiers of the ballot paper, but only for smaller parties. The differences between smaller (i.e., ACT, Green, UF and NZF) and bigger (i.e., Labour and National) parties are quite pronounced, especially when considering candidate preferences only. However, Table 11 also indicates evidence of personal voting, where preferences for parties fail to explain the SMD as sufficiently as preferences for candidates. The main beneficiaries of the deviations of small parties' supporters from their sincere preferences are the two largest parties, and this is similarly the case for both the SMD and the PR vote.

Again, more can be said by looking exclusively at those constituencies that are competitive for the two main parties only, i.e., the Labour and the National parties. In these constituencies, we should clearly see a movement from smaller to larger parties in the SMD vote. Table 12 indicates that the few voters who had clear preferences for the NZF and the ACT candidates in these competitive districts had almost fully moved to a candidate with better electoral chances. This is not true, however, for supporters of the Green and the UF parties. Moving to the PR vote and coalition preferences, during the period prior to the 2005 elections, parties did not present voters with clear post-electoral coalition options. Only the Green were clearly committed to supporting a Labour-led government, which Labour welcomed (Geddis, 2006). Table 13 shows patterns of voting in the PR only for respondents who had a clear preference for a Labour-Green government: while we see a movement from Green to Labour and vice versa, the patterns are not significantly different from those presented in Table 11.

Table 8
How respondents voted, by favourite candidate and party, Japan 2003.

	PR Vote					SMD Vote					N
	LDP	DPJ	CGP	SDP	JCP	LDP	DPJ	CGP	SDP	JCP	
Highest PARTY preference											
LDP	**91.3**	4.5	3.7	0.0	0.5	**89.0**	7.7	2.7	0.3	0.3	401
DPJ	3.9	**92.7**	0.5	0.9	1.9	8.3	**83.5**	0.9	4.4	2.9	206
CGP	3.9	1.9	**94.2**	0.0	0.0	61.5	9.6	**28.9**	0.0	0.0	52
SDP	13.0	13.0	0.0	**69.6**	4.4	13.0	39.1	0.0	**39.1**	8.7	23
JCP	0.0	5.6	0.0	0.0	**94.4**	0.0	5.6	0.0	0.0	**94.4**	18
Highest CANDIDATE preference											
LDP	**71.9**	14.5	11.3	1.1	1.1	**86.1**	9.7	1.3	1.7	1.3	538
DPJ	19.2	**70.2**	4.3	3.9	2.4	15.9	**82.2**	0.5	0.9	0.5	208
CGP	40.7	11.1	**44.4**	0.0	3.7	0.0	14.8	**81.5**	0.0	3.7	27
SDP	16.7	25.0	0.0	**58.3**	0.0	8.3	0.0	0.0	**91.7**	0.0	12
JCP	7.1	21.4	0.0	3.6	**67.9**	3.6	14.3	3.6	3.6	**75.0**	28

Key to parties: Liberal Democratic Party (LDP), Democratic Party of Japan (DPJ), Komeino-Clean Government Party (CGP), Social Democratic Party (SDP), Japanese Communist Party (JCP).
Bold diagonal values indicate sincere voting.

Table 9
How respondents voted, by favourite candidate (marginal seats only), Japan 2003.

Highest CANDIDATE preference	SMD Vote					N
	LDP	DPJ	CGP	SDP	JCP	
LDP	**93.3**	4.7	1.3	0.7	0.0	150
DPJ	13.7	**84.2**	0.0	1.1	1.1	93
CGP	0.0	0.0	**100.0**	0.0	0.0	7
SDP	0.0	0.0	0.0	**100.0**	0.0	5
JCP	9.1	27.3	0.0	0.0	**63.6**	11

Note: The table only includes marginal seats for the LDP and the DPJ where the difference in vote between the winner and the first loser in the previous election is less or equal to 5%.
Bold diagonal values indicate sincere voting.

Table 10
How respondents voted, by favourite party and coalition preference, Japan 2003.

Highest PARTY preference	Preference for LDP-CGP coalition					
	PR Vote					N
	LDP	DPJ	CGP	SDP	JCP	
LDP	**88.2**	5.2	5.7	0.0	1.0	211
DPJ	10.1	**84.8**	0.0	1.3	3.8	79
CGP	2.3	0.0	**97.7**	0.0	0.0	43
SDP	20.0	10.0	0.0	**70.0**	0.0	10
JCP	0.0	0.0	0.0	0.0	**100.0**	3

Note: The table only includes respondents who prefer the most a coalition formed by the LDP and a junior coalition partner.
Bold diagonal values indicate sincere voting.

8. Conclusion

Citizens under mixed systems vote for both parties and candidates to elect the same representative body by using proportional and majoritarian rules simultaneously. Previous works have shown that many voters do not confine themselves to just one party but in fact split their vote across parties; split-ticket voting has been largely interpreted as strategic voting while straight voting as sincere. We discussed two limitations with existing studies. First, the literature defines sincere and strategic voting in terms of the action voters take, rather than in terms of how voters reach a voting decision, which is problematic given that under mixed systems observed behaviour is compatible with both sincere and strategic motivations. Second, most existing works rely on the assumption that parties' preferences are the yardstick for both the party and the candidate votes and fail to appreciate the possibility that voters hold separate preferences for parties and candidates. This paper has provided the first individual-level comparative analysis with the

Table 11
How respondents voted, by favourite candidate and party, New Zealand 2005.

	PR Vote						SMD Vote						N
	Lab	Nat	Green	NZF	ACT	UF	Lab	Natl	Green	NZF	ACT	UF	
Highest PARTY preference													
Labour	**95.6**	1.3	1.5	1.2	0.2	0.3	**89.8**	4.8	3.2	1.2	0.0	1.2	684
National	1.2	**93.2**	0.3	1.8	2.6	0.9	3.3	**91.3**	0.3	1.4	1.5	2.1	658
Green	20.4	0.9	**75.2**	2.7	0.0	0.9	46.6	8.9	**41.9**	09	0.9	0.9	113
NZF	11.9	6.5	0.0	**81.5**	0.0	0.0	25.9	20.7	3.3	**49.1**	0.0	1.1	92
ACT	15.0	42.5	2.5	0.0	**40.0**	0.0	12.5	50.0	5.0	0.0	**32.5**	0.0	40
UF	7.7	15.4	0.0	3.9	0.0	**73.1**	9.6	50.0	1.9	3.9	0.0	**34.6**	52
Highest CANDIDATE preference													
Labour	**79.4**	7.3	7.4	4.5	0.3	1.8	**90.7**	5.5	2.6	1.0	0.0	0.2	930
National	14.9	**72.7**	3.1	3.8	2.1	3.3	11.8	**83.9**	2.7	0.9	0.2	0.5	941
Green	43.6	3.2	**48.4**	4.8	0.0	0.0	30.3	8.1	**61.6**	0.0	0.0	0.0	62
NZF	44.4	15.0	1.3	**36.9**	0.6	1.9	31.9	18.1	2.5	**46.3**	0.6	0.6	160
ACT	26.3	45.0	7.5	1.3	**20.0**	0.0	25.0	33.8	5.0	2.5	**33.8**	0.0	80
UF	38.5	35.9	5.4	5.4	1.3	**13.4**	23.1	21.4	4.2	4.2	2.9	**44.3**	239

Key to parties: Labour, National, Green, New Zealand First (NZF), Association of Consumers and Taxpayers (ACT); United Future (UF).
Bold diagonal values indicate sincere voting.

Table 12
How respondents voted, by favourite candidate (marginal seats only), New Zealand 2005.

Highest CANDIDATE preference	SMD Vote						N
Labour	**95.7**	4.4	0.0	0.0	0.0	0.0	119
National	12.3	**87.7**	0.0	0.0	0.0	0.0	167
Green	0.0	0.0	**100.0**	0.0	0.0	0.0	13
NZF	0.0	50.0	50.0	**0.0**	0.0	0.0	14
ACT	40.0	40.0	0.0	0.0	**20.0**	0.0	16
UF	0.0	0.0	0.0	0.0	0.0	**100.0**	19

Note: The table only includes marginal seats for the Labour and the National where the difference in vote between the winner and the first loser in the previous election is less or equal to 5%.
Bold diagonal values indicate sincere voting.

aim of distinguishing empirically between sincere and apparent strategic scrutiny and observed vote choice using preferences for both parties and candidates.

The evidence offered in this paper suggests that straight voting is not synonymous with sincere voting and split-ticket voting is not synonymous with a strategic vote. Consequently, looking simply at straight and split-ticket voting, potentially underestimates strategic voting by failing to appreciate all those instances where apparent strategic scrutiny and vote choice do not identify; at the same time it will likely underestimate sincere split-ticket voting in all those instances in which voters hold separate preferences for parties and candidates. It becomes clear that the two votes under mixed systems are used by voters to express a more nuanced electoral choice that cannot be accounted for by using a simple 'strategic versus sincere' *party-centred* voting explanation. Vote choice appears to be quite simple as voters 'simply' vote for what they like. However, voters often have sophisticated preferences, as many favour more than one party or choose candidates irrespective of their party affiliation.

Table 13
How respondents voted by favourite party and coalition preference, New Zealand 2005.

Highest PARTY preference	Preference for Labour-Green coalition						
	PR Vote						N
	Labour	National	Green	NZF	ACT	UF	
Labour	**93.9**	1.0	4.9	1.0	0.0	0.0	164
National	0.0	**0.0**	0.0	0.0	0.0	0.0	0
Green	20.2	0.0	**78.7**	0.0	0.0	1.1	89
NZF	33.3	0.0	0.0	**66.7**	0.0	0.0	3
ACT	100.0	0.0	0.0	0.0	**0.0**	0.0	2
UF	0.0	0.0	0.0	0.0	0.0	**0.0**	0

Note: The table only includes respondents who prefer the most a coalition formed by the Labour and the Green after the election.
Bold diagonal values indicate sincere voting.

With regard to a comparison across countries, on the one hand, Germany and New Zealand differ from Japan in that they offer more evidence for voters' apparent strategic coordination. On the other hand, while patterns of voting show a much more party-centred vote in Germany, New Zealand and especially Japan provide evidence for a highly candidate-centred SMD vote. These cross-country differences are in line with earlier findings at the aggregate-level (see Moser and Scheiner, 2005) which indicate that, despite New Zealand and German being characterized by a very similar mixed system when compared to Japan, patterns of vote choice on the SMDs are much more similar between Japan and New Zealand than between Germany and New Zealand. Ultimately, this indicates that institutional level factors, here the tiers' combination, tell only one part of the story. To see if these findings hold in other countries we must wait for the availability of surveys which ask respondents about both parties and candidates similarly across countries.

The results have a number of implications beyond the study of mixed systems. The first one regards the vote under majoritarian rules when compared to the vote under proportional rules. Recent studies have challenged the common wisdom that strategic voting is much weaker under proportional rules than under majoritarian ones (e.g., Hobolt and Karp, 2010). Albeit we cannot control in this paper for voters' expectations directly, this paper tend to confirm these recent findings but it warns that the study of strategic voting must *control for* personal vote. Secondly, this paper indicates that looking at vote choice to study strategic voting only captures part of the complexity of vote choice patterns. Looking at sophisticated voters defined as those who favour more than one party or consider candidates irrespective of their party's affiliation might open up new avenues of research including but not limited to the study of protest voting.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at http://dx.doi.org/10.1016/j.electstud.2017.05.003.

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