



Political knowledge about electoral rules: Comparing mixed member proportional systems in Germany and New Zealand

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Abstract

Mixed Member Proportional (MMP) electoral systems are considered by some to be “the best of both worlds” because they combine single member district representation with proportional outcomes. Critics, however, maintain that such systems cause voter confusion leading some voters to cast misinformed votes. Survey data from Germany and New Zealand are used to investigate voter’s political knowledge of the electoral system and their voting behavior. The findings suggest that knowledge about the electoral system is similar in New Zealand and in Germany. Although some may very well find the system complex, there is no evidence to suggest that a lack of knowledge about the electoral system influences voting behavior. The results undermine the claims made by skeptics who fear that misunderstanding threatens the legitimacy of electoral outcomes.

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1. Introduction

Mixed Member Proportional (MMP) electoral systems are considered by some to be “the best of both worlds” because they combine single member district representation with

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proportional outcomes (Shugart and Wattenberg, 2001). They have become increasingly popular as a means of election to legislative assemblies. Generally, voters in these mixed systems cast two votes: one for the party and another for the electorate contest. These systems are attractive because they combine the advantages of single member district representation together with proportional representation (PR), and help to offset some of the disadvantages associated with each type of system (Bawn, 1999, pp. 490–491).

For much of the postwar era, this type of system was almost entirely unique to Germany. Yet in the 1990s, the German mixed system began to attract a great deal of attention from electoral reformers and some countries, notably New Zealand, took the dramatic step of replacing its plurality electoral system with MMP.¹ The system has also been adopted for the Scottish Parliament and the National Assembly of Wales and reformers have suggested adopting an MMP electoral system for Canada (Milner, 2004). Over a dozen other countries have also adopted mixed “parallel” systems, including Japan, Russia, South Korea, and the Ukraine (Farrell, 2001). The major difference between these mixed systems and the MMP system used in Germany is whether they use the PR list or “party vote” to compensate for disproportionate outcomes in the single member district (SMD) contests or whether the seats are allocated independently in SMD and PR sections (Blais and Massicotte, 1996). The German system is “compensatory”, and therefore guarantees a high degree of proportionality because seats in the legislature are ultimately determined by the distribution of the party vote nationwide. In contrast, a parallel system is one in which “the two sets of elections are detached and distinct and are not dependent on each other for seat allocations” (International Institute for Democracy and Electoral Assistance (IDEA), 2005, 105). In an MMP system, while voters cast one vote for a constituency MP and another for a political party, the latter vote is ultimately the most important, as it is used as the basis for determining the partisan composition of parliament.

While MMP may be attractive for the reasons discussed above, in practice it appears to require some degree of sophistication on the part of the voter. Some have expressed concerns that voters can be confused by the existence of two sets of rules which translate their votes into seats, and such confusion can discourage participation, produce results that are not consistent with voters’ preferences, and undermine system legitimacy (Cox and Schoppa, 2002). Voters may also be confused by the structure of the ballot. In Germany, the party list vote is referred to as the “second vote” while the constituency vote is referred to as the “first vote”. According to Taagepera and Shugart (1989), the labelling of the first vote was intended to give the impression that the constituency vote is more significant even though it is not. Concerns about voter confusion have been widely reported in Germany (see, for example, Jesse, 1988; Kaase, 1984; Schoen, 1999; Schmitt-Beck, 1993). Others have suggested that mixed systems suffer from “contamination” effects that alter the incentives of parties and voters (Ferrara and Herron, 2005). Cox and Schoppa (2002) find that German parties consistently run SMD candidates in all districts even when their candidates have no chance of winning. The decision to “go it alone” is intended to boost their share of the PR vote by either putting a human face on the party and/or possibly benefiting from voter confusion. If party strategy benefits from voter confusion, then it raises a serious problem for MMP systems, where the PR vote is used to determine the partisan balance in the legislature.

¹ See Vowles (1995) for an accounting of the reasons for New Zealand’s adoption of MMP. Other countries adopting MMP in the 1990s include Venezuela and Bolivia. Both the countries previously had list based PR systems.

If such problems exist in Germany, which has had a two-vote system since 1953, it is likely to be even more of a problem in cases where a new electoral system has been introduced. Such concerns were raised by opponents of MMP in New Zealand, which first used the system in 1996. In response, the Electoral Commission launched an education programme that provided voters with the basic facts needed to cast an effective vote (Banducci et al., 1998, 103). To avoid possible confusion, the New Zealand ballot refers to the party list vote as the “party vote” and the constituency vote is referred to as the “electorate” vote. During the first MMP election campaign in 1996 the Electoral Commission continued its education programme, stressing the fact that ‘you have two votes’ and providing voters with the basic facts needed to cast an effective vote. The Commission stressed that the total size of each party in Parliament depends upon the party vote, and described the role of each vote: ‘your party vote is for the political party you most want to be represented in Parliament; your electorate vote is for the candidate you want to be the MP for your electorate’. Party literature also stressed the importance of the two votes and advised voters on how to use their two votes to gain optimum influence with most parties appealing to voters for both votes. Some parties, however, have had difficulty in adjusting to the new electoral system, concentrating their resources more on competitive electorate contests than in mobilizing support for the party vote (see Denmark, 1998).

This study examines whether such fears about MMP systems are warranted. Given the apparent complexities of these systems, it is hypothesized that citizens who have more experience with the electoral system will be more likely to understand it and vote in ways consistent with their preferences. The analysis is based on a comparison of Germany and New Zealand which is modeled after the German electoral system and thus shares many of its features. Like Germany, the New Zealand system is compensatory, where the party list vote determines the overall composition of parliament. New Zealand also adopted a five percent threshold that serves to keep small parties out of parliament.² Like Germany, New Zealand also allows voters to split their votes.³

The following analysis is based on a series of voter surveys conducted in Germany and New Zealand. The German data come from several sources and are either conducted by phone or face-to-face while the data from New Zealand were collected by the New Zealand Election Study (NZES) largely in the form of postal questionnaires.⁴ A reliance on survey data together with a cross national approach provides several advantages. Other studies have relied on aggregate data to draw inferences about possible voter confusion influencing vote choice in MMP systems (Gschwend et al., 2003; Cox and Schoppa, 2002; Bawn, 1999; Schoen, 1999). To test the voter confusion hypothesis directly requires individual level data. Furthermore a cross national approach allows one to examine whether experience matters. We can, for example, compare New Zealand’s experience with MMP to East Germany, which first participated in

² Parties that do not receive five percent of the list vote can nevertheless gain seats in proportion to their vote by winning constituency seats. In Germany, the threshold is three constituency seats while in New Zealand just one seat is required.

³ Most mixed systems allow voters to split their votes between parties. An exception is in Mexico, where voters cast only one vote. Under the single ballot system, Mexican voters cast only one vote to select two types of deputies: single member constituency and party list PR representatives. Votes are cast for the constituency candidates only. These votes are then aggregated for allocation of the proportional seats as well. The single ballot is also used in the lower houses in Senegal and South Korea and in the Italian Senate (see Quinones and Vengroff, 2002).

⁴ The German data are archived at the Central Archive (ZA) for Empirical Social Research, University of Cologne. The New Zealand data are available at www.nzes.org.

federal elections in 1990. While the two cases are distinct in many ways, they both share the experience of coping with a new and potentially complicated electoral system. Such a comparison allows one to assess whether experience with the electoral system matters.

The following section begins with an examination of how citizens understand the electoral system in Germany and New Zealand. A model is then developed to examine what characteristics are associated with knowledge of the electoral system. Of particular interest is determining whether there are partisan differences in knowledge of electoral rules that would give some parties an advantage. The potential influence of the media and the campaign in facilitating knowledge about the electoral system is also considered. Finally, knowledge of the electoral system is used as an independent variable to examine its influence on voting behavior.

2. Understanding the system

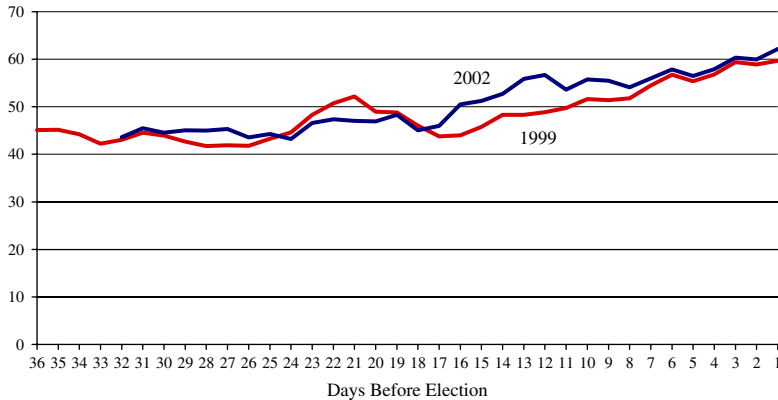
To assess whether citizens understand the electoral system, we begin by examining responses to a question asking which of the two votes is the most important in deciding which party will get the largest number of seats in Parliament. Respondents are also given the option of saying they are both equally important. The question was developed in Germany (and replicated in New Zealand) to address the fundamental question of whether citizens understood the compensatory nature of the system. Jesse (1988, p. 119) reports, that on the basis of this question, most Germans do not understand the voting system. For example, in a survey taken before the 1987 election, just 45 percent of German voters identified the party vote, labeled the “second vote” in Germany, as the most important vote while 20 percent thought it was the electorate vote. Table 1 provides more recent figures for West Germany, along with figures from East Germany and New Zealand collected both before and after elections. The data for West Germany show that understanding of the system, at least prior to an election, is relatively stable over time with about half the electorate reporting the correct answer. In East Germany, knowledge of the system was quite low in 1990, with just a third correctly identifying the second vote as the most important. However, in 1994 the proportion increases to levels similar to West Germany. In New Zealand, pre-election figures reveal a similar proportion to that of West Germany, indicating that about half the electorate understands the primacy of the electorate vote.

Post election surveys, however, indicate a higher level of awareness. In 1998, where pre and post data are available in Germany, the proportion correctly naming the second vote increases by

Table 1
Knowledge of the electoral system over time in Germany and New Zealand

	West Germany					East Germany				New Zealand				
	1980	1990	1994	1998		1990	1994	1998		1996	1999		2002	
	Pre	Pre	Pre	Pre	Post	Pre	Pre	Pre	Post	Post	Pre	Post	Pre	Post
Party vote	47	51	55	48	58	31	53	40	44	57	50	64	52	56
Equally important	31	9	2	22	21	17	24	27	35	26	35	25	8	29
Electorate vote	20	23	31	21	15	18	19	19	11	8	10	7	39	11
Don't know	2	17	12	9	6	34	4	15	10	9	5	4	2	4
<i>n</i>	1518	1138	1996	1101	1101	614	2167	519	564	5015	3370	2035	3741	5659

Sources: Politbarometer 1980; ZA Study S1053; German Election Study 1990; ZA study S2517; Politbarometer 1994; ZA study S2546 (West) and S2559 (East); Deutsche nationale Wahlstudie zur Bundestagswahl 1998; ZA study S3066; New Zealand Election Study (NZES), 1996, 1999, 2002. Note: In the German Election Study 1990, only respondents who said that they intended to vote were asked about the voting system.



Source: New Zealand Election Study (NZES) 1999, 2002 pre-election surveys
 Note: Data shown are five day (centered) moving averages.

Fig. 1. Knowledge of party vote over the course of the campaign in New Zealand.

10 percent. In New Zealand, there is a 14 percent increase in knowledge in 1999 and a four percent increase in 2002.⁵ These figures do not tell us whether understanding increased during the campaign or after votes had been cast. It is possible that the election results increased awareness, which would therefore have no impact on voting behavior. Although the data do not exist for Germany, the question of whether voters learn more about the system during the campaign can be addressed in New Zealand. The NZES includes a rolling cross section design where about 90 respondents are surveyed every day during the five weeks of the campaign. Fig. 1 plots the proportion of respondents correctly identifying the party vote as the most important vote across two campaigns.⁶ In both 1999 and in 2002, about 45 percent correctly identified the party vote as the most important in the first two weeks of the campaign. About three weeks prior to the election, the proportion begins to increase rising above 60 percent prior to the election. These data suggest that most of the learning takes place *before* the election rather than afterwards.

Additional questions assessing knowledge about various aspects of the system in New Zealand are presented in Table 2. When asked whether it was true or false that the party vote usually decides the total number of seats each party gets in parliament, 73 percent responded with the correct answer in both 1999 and 2002. A similar proportion is aware that parties that win less than five percent of the vote and no electorate seats cannot win any seat in parliament. An additional question was asked in 2002 to assess voters' knowledge of both MMP and the previous first-past-the-post system (FPP). When asked whether MMP was more likely to give parties that receive the most votes in parliament the most seats than the previous first-past-the-post system, 52 percent of New Zealanders gave the correct answer. While this reflects a greater

⁵ In Germany face-to-face interviews were conducted between August 25 and September 26 (Pre 1998) and between October 8 and November 21 (Post 1998). In New Zealand, pre-election interviews were conducted over the phone over a five week period and post election interviews were conducted by post.

⁶ Although the NZES conducted a rolling cross section prior to the first MMP election in 1996, the wording of the knowledge question is different. Specifically the "equal importance" response was not offered so comparisons with other surveys are not possible.

Table 2
Knowledge of electoral system in New Zealand

	Correct		Incorrect		Don't know	
	1999	2002	1999	2002	1999	2002
The party votes usually decide the total number of seats each party gets in parliament	72.8	73.1	11.9	11.4	15.5	15.3
A party that wins less than five percent of the party vote and wins no electorates at all cannot win any seats	76.4	...	8.3	15.3
The party with the most votes is more likely to get the most seats under MMP than under FPP	...	52.8	...	22.3	...	24.9

Source: NZES 1999, 2002 (post election studies).

degree of misunderstanding, it also suggests that many may not know (or recall) how FPP systems work.⁷ Unfortunately, little work has been done to assess knowledge of such systems, due in part to the common assumption that FPP is easily understood.

Qualitative research in New Zealand suggests that some citizens may have difficulty in understanding the electoral process despite their unique experience with two different systems. A significant number of people, for example, do not understand that FPP elections do not necessarily generate proportional representation. Others are misled by the title, first-past-the-post, which they take as meaning that the most votes deliver the most seats (Vowles et al., 2002, 170). With respect to MMP, some are confused over how votes are translated into seats. One survey respondent who later participated in a focus group expressed her confusion this way:

“Proportional representation, that’s just the number of seats that you know out of the 100 percent, the number of seats that you’ve got that, that’s how many. I don’t see why that would be a problem, but I don’t quite understand how they chop them up with list MPs. So obviously the number of electorates there are doesn’t total the number of seats in Parliament, is that correct?”⁸

Confusion about electoral rules may also threaten the legitimacy of electoral outcomes. In the 1999 election, the Greens and New Zealand First gained representation in parliament by winning an electorate seat. The Greens, however, also passed the five percent threshold after the counting of overseas ballots. Nevertheless, some were left with the impression that they did not deserve to win so many seats:

“That’s one of the things that I find strange and yet I’ve read quite a bit about it is like the Greens, they get one person voted in and they get eight seats or whatever it is, seven.”

“Yeah, I thought that was odd too, because... but [New Zealand First] only got one. I actually never did understand that at the last election. Perhaps you could explain it to me.”⁹

These responses suggest that a sizable portion of the electorate may find electoral rules to be complex. This raises the question of whether confusion resulting from such complexity is

⁷ In 1978 and 1981, the National party received fewer votes than Labour but still won a majority of the seats in parliament.

⁸ Focus group conducted in Hamilton, New Zealand on February 27, 2001.

⁹ Focus group conducted on Hamilton, New Zealand on February 6, 2001.

generally shared by most voters or whether it is specific to certain groups of people. To address this question, we turn to a multivariate analysis.

3. Multivariate analysis of individuals' understanding of electoral rules

Several factors may distinguish individuals' understanding of electoral rules. Those who are more educated and more interested in politics should have a better understanding of the system. In New Zealand, the measure of political interest is based on the question "Generally speaking, how much interest do you usually have in what's going on in politics?" The German version of the question asks "How strongly are you interested in politics? Education is based on the highest formal educational qualification (see [Appendix](#)). These measures have been standardized on a scale ranging from 0 to 1 so that the effects are comparable across countries.

One might also expect age to have an influence on political knowledge. In New Zealand, older voters, whose voting experience is largely based on an alternative system, may be more confused by the new system than younger voters who have less experience with two alternative electoral systems. In contrast, in West Germany, older voters may be more likely to understand the system than younger voters who have less voting experience. In East Germany, older voters are not likely to be more or less informed than younger voters about the workings of Germany's electoral system.

There may also be partisan advantages to political knowledge. For example, citizens who prefer smaller parties may be more likely to know about the importance of the party vote, since it is through the party list vote that the smaller parties have the best chance of winning seats.¹⁰ To measure party preference, we rely on a series of items that measure evaluations of the parties employing a 10 point scale ranging from strongly like to strongly dislike. These "thermometer" rankings were asked in the same way in Germany and New Zealand. The preferred party can be identified as the party that is most positively evaluated by the respondent. Those respondents who do not rank one party more positively than another are classified as having no clear party preference.

Along with the variables mentioned above, gender is included in the model as a control variable. The dependent variable is dichotomous, where 1 indicates the respondent correctly identified the party list vote as the most important in determining the partisan distribution in parliament and 0 otherwise. Because the dependent variable is dichotomous, logistic regression is used to estimate the model.

The results are presented in [Table 3](#).¹¹ Generally, the variables having the largest impact are political interest and education. Older voters are less likely to understand the system in New Zealand in the first election held under MMP but not in the second. In addition, women are less likely to have knowledge about the new electoral system after the first MMP election but by 1999 there are no significant differences. There are no significant differences between small and large parties. However, those without any clear party preference are less likely to understand the system than those with a preference for one of the two large parties. The results for

¹⁰ These parties include the FDP, Greens and PDS (in Germany) and New Zealand First, Alliance, Greens, and Act (in New Zealand). The Christian Social Union (CSU) is classified as a large party because it fills the role of the Christian Democratic Union (CDU) in Bavaria.

¹¹ Models are estimated for the first two elections under MMP in New Zealand to examine differences associated with the introduction of the new system. Two consecutive elections in Germany are also analyzed, separating East and West Germany to control for length of experience.

Table 3
 Estimating knowledge of the importance of the party vote: Germany and New Zealand logit coefficients

	West and East Germany								New Zealand			
	West, 1994		East, 1994		West, 1998		East, 1998		1996		1999	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Political Interest	1.61**	(0.33)	0.57*	(0.23)	2.05**	(0.29)	1.38**	(0.39)	1.64**	(0.15)	1.60**	(0.16)
Female	−0.14	(0.14)	−0.05	(0.15)	−0.18	(0.13)	−0.59**	(0.18)	−0.17**	(0.06)	−0.11	(0.06)
Age	−0.02**	(0.00)	0.01	(0.01)	−0.01*	(0.00)	0.00	(0.01)	−0.01**	(0.00)	0.00	(0.00)
Education	0.98**	(0.27)	0.90**	(0.31)	0.82**	(0.26)	0.81*	(0.38)	1.98**	(0.14)	2.08**	(0.17)
Small party preference	−0.15	(0.21)	0.17	(0.18)	0.41***	(0.21)	0.30	(0.22)	−0.12	(0.07)	0.07	(0.08)
No party preference	−0.23	(0.16)	0.02	(0.19)	−0.17	(0.17)	−0.01	(0.22)	−0.38**	(0.07)	−0.18**	(0.06)
Constant	−0.75*	(0.32)	−1.10**	(0.41)	−0.60†	(0.31)	−1.03*	(0.44)	−1.42**	(0.15)	−1.95**	(0.19)
Pseudo- R^2	0.13		0.04		0.15		0.11		0.12		0.08	
n	1006		730		1093		562		4739		5587	

Source: Politbarometer 1994; ZA study S2546 (West) S2559 (East); Deutsche nationale Wahlstudie zur Bundestagswahl 1998; ZA study S3066. NZES 1996, 1999 (all post election studies). ** $p < .01$; * $p < .05$. † $p = .05$. Standard errors are in parentheses.

Germany are similar. Political interest and education have a consistently positive impact, while those who prefer small parties are no more likely to understand the system, with the possible exception of West Germany in 1998 where the coefficient is approaching statistical significance. However, unlike New Zealand those with no clear party preference are not less likely to understand the system than large party supporters. In East Germany, as expected, age is not a significant predictor of knowledge. But in West Germany, however, the sign is also negative for both elections indicating mixed support for the voting experience hypothesis.

While the cross sectional data suggest similar patterns over time, one can more closely examine changes that occur over the course of an election campaign using panel data from New Zealand. These data are well-suited for examining individual level change and can therefore provide some insight into how people acquire knowledge about the electoral system. We might expect those who pay more attention to the media to be exposed to information about the electoral system that will increase their knowledge. In New Zealand there are just three main television stations. TV One, which is operated by a state owned enterprise (TV NZ), contains more serious coverage while TV 3, which is a commercial enterprise, is more entertainment oriented (Banducci and Karp, 2003). Therefore a measure of exposure to TV One is included as a dummy variable to represent exposure to substantive television news. Variables that measure frequency of exposure to newspapers and radio are also included to estimate the effects of other types of media exposure. Those who are contacted by a political party during the campaign may also be more likely to understand the system. To estimate change in knowledge, the model includes a pre-election measure of knowledge of the primacy of the party vote. A lagged dependent variable is well-suited for examining change in panel data and is a conservative test for opinion change since it can be biased against rejecting the null hypotheses (see Markus, 1979). These estimates therefore represent the probability of a change in knowledge.

Table 4 indicates that the largest changes occur among those who are most interested in politics and those with higher levels of education. In addition, those who tune into TV One on a regular basis are more likely to learn about the electoral system. Other media outlets, however, appear to have little impact. In addition party contact does not appear to have any influence (one way or the other).

4. Knowledge and voting behavior

So far we have seen that knowledge about the electoral system is similar in Germany and New Zealand. Moreover, education and political interests are consistent predictors of knowledge. If some voters are in fact confused over the rules, does confusion distort their preferences? Given the opportunity to cast two votes, it is possible that confusion over electoral rules will lead voters to adopt a misplaced strategy. For example, voters may split their votes if they believe that both votes will increase the seat share of the parties for which they are cast (Bawn, 1999, 493). Misunderstanding the system may have serious consequences when voters are allowed to simultaneously support different parties with each of their votes. In a classic study of ticket splitting in the U.S., Campbell and Miller (1957) found that ticket splitting occurred disproportionately among the least educated voters. In Germany, small parties encourage split voting by relying upon the ignorance among voters of the relative importance of the two votes (Roberts, 1988). Split voting has increased over time, rising from four percent in 1961 to over 15 percent in the 1990s following German reunification (Klingemann and Wessels, 2001). An analysis of the combinations of the first and second votes between 1953 and 1990 indicates that less than half of the tickets were split in a completely rational manner (Schoen, 1999, 492). The claim that split-ticket

Table 4
Change in knowledge of party vote in New Zealand

	B	S.E.
Political interest	1.47**	(0.50)
Female	−0.06	(0.14)
Age	0.00	(0.00)
Education	1.70**	(0.43)
Small party preference	−0.07	(0.18)
No party preference	−0.04	(0.15)
Television exposure	0.20*	(0.09)
Newspaper exposure	0.01	(0.09)
Radio exposure	0.12	(0.07)
Contacted by a political party	−0.02	(0.20)
Knowledge of party vote lagged	1.08**	(0.14)
Constant	−2.79**	(0.64)
Pseudo- R^2	0.17	
<i>n</i>	1160	

Source: NZES 1999 (pre/post panel). ** $p < .01$; * $p < .05$. Standard errors are in parentheses.

voting results from such misunderstanding of mixed electoral systems has recently been described as the ‘conventional interpretation’ (Bawn, 1999, 502).

Of course, split voting may also be the result of sophisticated behavior (see, for example, Johnston and Pattie, 2002; Karp et al., 2002; Cox, 1997; Lijphart, 1994; Taagepera and Shugart, 1989; Duverger, 1954). Since small parties usually have little chance of winning in the SMD contests, citizens who prefer those parties may be more inclined to split by casting a sincere vote for their party list vote and choosing to vote for their second preferred party in the SMD contests. A common approach in examining strategic voting in MMP systems has been to rely on aggregate data to investigate the conditions under which split voting occurs (Gschwend et al., 2003; Bawn, 1999; Cox, 1997) though individual level data have also been employed (Karp et al., 2002). Therefore, if split voting is the result of rational strategic behavior, one should expect those who prefer small parties to be more likely to split. Another case for ticket splitting arises in a situation where a small party can cross the threshold by winning a constituency contest. In this case, a strategic voter may cast his party list vote for his preferred party but choose to support another candidate in an SMD contest so as to help a favored coalition partner cross the threshold. Similarly, a voter may have no choice but to split her vote if her preferred party has made a deal with a minor coalition partner to enable it to win a seat via the electorate route. Either way, split voting may be the result of strategic behavior.

The 1998 German Election Study estimates that 13 percent of the German electorate split their votes though other sources suggest that split voting could have been higher.¹² These data suggest that there is little difference between West and East Germany, though in previous elections East Germans were more likely to split their votes.¹³ In New Zealand, the proportion choosing to split

¹² Pappi and Thurner (2002, 219) estimate 21.7 percent split their votes based on a survey administered before the 1998 election. More accurate estimates of split voting derived from aggregate data were released in earlier elections by the Federal Statistical Bureau. Data collection was suspended, however, for the 1994 and 1998 elections (see Schoen, 1999).

¹³ Surveys from 1990, when MMP was first used in East Germany, estimate that 22 percent split their votes compared to nine percent in West Germany (German Election Study 1990, ZA Study S2517). In 1994, split voting in the east was estimated at 27 percent compared to 15 percent in the west (Politbarometer 1994 ZA study S2546 West and S2559 East).

their votes is considerably higher; in 1996, when the system was first used, 37 percent of the electorate split their vote by casting their party vote for one party and an electorate vote for a candidate of a different party. In subsequent elections, the rate of split voting in New Zealand declined somewhat, approaching 27 percent in the 2002 election (NZES, 2002). The higher rate of split voting in New Zealand (and earlier in East Germany) raises the question of whether confusion is associated with the introduction of a new electoral system. The experience elsewhere suggests that the level of split voting in New Zealand may not be extraordinarily high. For example, in Scotland and Wales, where MMP was first used in 1999, the level of split voting was virtually the same as when East Germans first participated in federal elections. In Scotland, 21 percent split their votes and 19 percent split their votes in Wales (Johnston and Pattie, 2002, 586–587). As a test of whether split voting is associated with confusion, it is hypothesized that those who misunderstand the electoral system should be more likely to split their votes.

Education and political interest also serve as proxies for political knowledge (see Delli Carpini and Keeter, 1996). Given the rival hypothesis that split voting results from strategic behavior, we include a control for whether a voter prefers a small party. As suggested above, other possible strategic scenarios are possible, such as those described above regarding the possibility of a small party crossing the threshold by winning a constituency contest. Unfortunately the lack of available data on expectations together with the fact that such circumstances are rare, particularly in the German case, prevents a test of this hypothesis. Strength of party preference is also used as a control following the expectation that those with weaker preferences will be more likely to split their votes. Those who fail to express a preference for a specific party may also be willing to split their votes. In New Zealand, almost half of the electorate (47 percent) fails to express a clear preference for a political party, a consequence of partisan dealignment arising in the 1980s (Vowles et al., 1995). In contrast, in Germany, 22 percent fail to express a clear preference. The dependent variable is coded as 1 for those who split their votes between two parties and 0 otherwise.

The results in Table 5 provide little support for the confusion hypothesis. Knowledge of the electoral system has no influence on split voting in Germany, indicating that those who split their votes are just as knowledgeable as those who cast their votes for the same party. In New Zealand, the effects of knowledge are actually positive, indicating that split voting may be more likely to be associated with sophistication rather than confusion. Furthermore, in both New Zealand and Germany, highly educated voters are also more likely to split their votes while political interest has a positive influence in New Zealand. In all of the cases, consistent with the strategic hypothesis, those who prefer small parties are more likely to split their votes. While strength of party preference appears to have no influence in any of the models, those with no clear preference are also consistently more likely to split their votes.

5. Sincere voting

While the evidence presented thus far suggests that misunderstanding is not associated with split voting it is still not clear whether confusion distorts party preferences. If there is contamination between the two tiers, then it is also possible that voters who cast straight votes may not necessarily be casting their party list vote in a way that is consistent with their party preference. If for example, voters are influenced by the candidates in the SMD contests, then it is possible that this may also spillover to the party list vote. Indeed, as suggested earlier, the expectation that candidates can boost their party's party list vote is a strong incentive for parties to field candidates in SMD contests, even if their chances of winning are hopeless (Ferrara and Herron, 2005).

Table 5
Estimating effects of knowledge on split voting: Germany and New Zealand logit coefficients

	West and East Germany								New Zealand			
	West, 1994		East, 1994		West, 1998		East, 1998		1996		1999	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Political interest	−0.21	(0.48)	0.57	(0.32)	0.65	(0.47)	−0.67	(0.60)	0.65**	(0.16)	0.42*	(0.19)
Female	0.12	(0.20)	−0.10	(0.22)	0.35	(0.21)	−0.07	(0.28)	−0.12*	(0.06)	−0.10	(0.07)
Age	0.00	(0.01)	0.00	(0.01)	−0.01	(0.01)	−0.01	(0.01)	−0.01**	(0.00)	0.00	(0.00)
Education	1.17**	(0.40)	1.38**	(0.44)	1.60**	(0.41)	1.09†	(0.57)	0.85**	(0.13)	0.93**	(0.20)
Small party preference	1.25**	(0.26)	3.37**	(0.27)	1.48**	(0.25)	0.94**	(0.32)	0.46**	(0.07)	0.81**	(0.08)
No party preference	0.98**	(0.23)	1.50**	(0.26)	1.26**	(0.25)	1.53**	(0.34)	0.67**	(0.07)	0.57**	(0.07)
Knowledge of party vote	0.05	(0.20)	−0.24	(0.22)	0.38	(0.23)	0.50	(0.28)	0.34**	(0.06)	0.26**	(0.07)
Strength of party preference	−0.06	(0.72)	0.07	(0.73)	0.13	(0.71)	−0.06	(0.91)	−0.02	(0.17)	−0.04	(0.18)
Constant	−2.73**	(0.77)	−3.09**	(0.83)	−3.99**	(0.78)	−2.34*	(0.92)	−1.75**	(0.18)	−2.28**	(0.25)
Pseudo- R^2	0.10		0.48		0.21		0.14		0.06		0.08	
n	791		605		880		443		4711		4808	

Source: Politbarometer 1994; ZA study S2546 (West) S2559 (East); Deutsche nationale Wahlstudie zur Bundestagswahl 1998; ZA study S3066. NZES 1996, 1999 (all post election studies). ** $p < .01$; * $p < .05$; † $p = .05$. Standard errors are in parentheses.

There are of course, several reasons other than voter confusion as to why voters may not cast a vote that is consistent with their preferences. Voters who choose to support another party on the party list vote may in fact be behaving rationally. Such an explanation has been more frequently applied to voting in SMD contests, where fears of casting a wasted vote are more common, but such considerations also apply in PR systems where a threshold is required to gain representation (Cox, 1997). Thus, one would expect those who are most likely to vote strategically to be those who prefer small parties who fear that their party will not cross the threshold needed for representation.

Another rationale for not casting a sincere vote applies to large party supporters who choose to maximize the number of seats held by their favored coalition by supporting a small party that would not otherwise cross the party threshold. This explanation has been frequently used to explain why some CDU voters choose to support the FDP. Aside from strategic considerations, voters may wish to cast a protest vote if they are dissatisfied with economic performance.

The analysis that follows is based on post election data from the 1998 election in Germany and post election data from the 1999 election in New Zealand. A sincere vote is measured by whether an individual's party preference matches his or her party list vote. The overall proportion of voters casting sincere votes is similar across countries. In New Zealand, 82 percent cast a sincere vote while 80 percent cast a sincere vote in West Germany as compared to 78 percent of East Germany. This leaves about a fifth of the electorate that are not casting sincere votes for the party list vote.

Knowledge of electoral rules is captured by whether respondents correctly identified the party vote as the most important vote. If confusion over electoral rules distorts preferences, then this variable should be negatively related to sincere voting. Ideally one could test the strategic voting hypothesis with pre-election data measuring how citizens perceive their favored party's chances of crossing the threshold (Pappi and Thurner, 2002). Unfortunately, such a measure is not available here. Instead it is assumed that such fears are shared only among those preferring small parties, defined as those that generally receive less than 10 percent of the party list vote nationwide. Thus one should expect those preferring small parties to be less likely to cast a sincere vote, opting instead to vote for a more viable alternative. As another proxy for strategic voting, it is assumed that citizens with weaker party preferences are more willing to help a coalition partner so as to maximize the number of seats for a particular coalition. Those with strong party preferences, on the other hand, will be more reluctant to use their votes strategically to share power. Strength of party preference is measured by using the value of the most preferred party. High values indicate a strong preference for a party (or parties) while lower values indicate a weaker preference.

To capture protest voting, a variable is used that represents whether citizens believe the national economy is performing well (see [Appendix](#) for question wording). Citizens who are dissatisfied with economic performance may cast an inconsistent vote to register a protest with their preferred party.

The results in [Table 6](#) suggest that voters who are less likely to cast sincere votes are those who are acting strategically rather than those confused about the rules. Knowledge of the party vote is not significant in any of the models, indicating that those who may be confused are no more likely to vote in ways that are inconsistent with their preferences than those who understand the rules. Those preferring smaller parties, who may fear casting a wasted vote, are less likely to cast a sincere vote than those who prefer large parties. The size of the coefficients are almost identical across countries. Strength of party preference also has a strong and consistent effect across countries. In neither case is knowledge of the electoral system statistically significant (though the coefficient is approaching statistical significance in West Germany and New Zealand). Regardless of statistical significance, the size of the coefficients is relatively small

indicating a negligible impact. In East Germany education is significant, indicating that those with lower levels of formal education are less likely to cast sincere votes.

6. Discussion

These results indicate a similar level of knowledge and behavior across countries. Although West Germany has used an MMP system since 1953, the level of knowledge about the system is equivalent to New Zealand, which adopted the system in 1996. It is likely that the education campaign conducted by the New Zealand Electoral Commission was successful in increasing public awareness of the new electoral system. In East Germany, understanding of the system was low prior to the 1990 federal elections. Yet in 1994, understanding increased among those in the former “German Democratic Republic” to levels comparable to the west. Nevertheless, a substantial portion of the electorate does not appear to fully understand the system. Results from focus groups reveal that the rules governing MMP systems can be complex and difficult to understand. Survey data support this view, suggesting that about four in 10 voters may not understand the importance of the party list vote. Education and political interest, as well as attention to serious news coverage, appear to lead to greater understanding.

Although some may not fully understand the system, there is no evidence to suggest that misunderstanding of the primacy of the party list vote affects voting behavior. Most voters cast their party list vote in ways that are consistent with their preferences. Those who appear not to be consistent are likely responding in a rational way to the strategic environment. Moreover, those casting split votes are unlikely to be confused. Educated citizens, as well as those who express political interest are more likely to split their votes. In addition, lack of knowledge about the electoral system does not appear to be associated with split voting. Instead, those with more knowledge are more likely to split their votes. All of this points to evidence that voters who choose to split their votes are doing so because they are sophisticated. One apparent difference between the two cases is that split voting is substantially higher in New Zealand than in Germany suggesting that confusion over the introduction of a new electoral system cannot explain these differences. Rather, it is likely that voters in New Zealand face a different strategic

Table 6
Knowledge and sincere voting

	Germany				New Zealand	
	West		East		B	S.E.
	B	S.E.	B	S.E.		
Female	0.37*	(0.18)	-0.54	(0.27)	0.12	(0.10)
Age	0.00	(0.01)	0.01	(0.01)	0.00	(0.00)
Education	0.68	(0.36)	1.74**	(0.62)	0.42	(0.31)
Small party preference	-1.11**	(0.23)	-1.03**	(0.29)	-0.98**	(0.12)
Knowledge of party vote	0.34	(0.19)	0.21	(0.27)	0.21	(0.11)
Strength of party preference	3.40**	(0.70)	4.22**	(1.01)	3.17**	(0.38)
Economy	-0.05	(0.11)	-0.25	(0.20)	0.10	(0.07)
Constant	-2.39**	(0.83)	-4.13**	(1.24)	-1.54**	(0.42)
Pseudo- R^2	0.10		0.15		0.08	
<i>n</i>	803		400		2899	

Source: Deutsche nationale Wahlstudie zur Bundestagswahl 1998; ZA study S3066. NZES 1999 (all post election studies). Note: Dependent variables are those who cast a vote for a party that was not consistent with their preference. Non-voters and those with no clear party preference are excluded. ** $p < .01$; * $p < .05$.

environment that leads them to split their votes. In Germany, small parties rarely win constituency contests. The Greens, for example, have never won a constituency contest and the FDP has only won one since 1957 (Pappi and Thurner, 2002, 210). In New Zealand, however, small parties have had more experience winning constituency contests. In the first election held in 1996, six parties won at least one constituency contest. In the following two elections, the number of parties winning constituency contests increased to seven. In part, the success of smaller parties in SMD contests is a consequence of dealignment and the indifference that voters express toward political parties (Vowles et al., 1995). The increased competition in the SMD contests in New Zealand thus provides voters, many of whom lack a clear party preference, with a different set of strategic incentives, and there is evidence to suggest that voters appear to be influenced by them (Karp et al., 2002).

How does understanding of a mixed system compare to other systems? Unfortunately, this is a difficult question to answer since few surveys attempt to measure knowledge of electoral systems. In New Zealand, the 1993 Referendum Panel conducted surveys to estimate the understanding of both the existing first-past-the-post (FPP) system and the proposed MMP. Their data indicated that less than half the respondents knew that under FPP ‘the winning party may win a greater share of seats in Parliament than its proportion of overall votes’ and a fifth wrongly thought that with FPP ‘the number of MPs a party gets reflects its share of the nationwide party vote’ (Phoenix Research, 1994). This comparison suggests that understanding of MMP may be at least as good as understanding of FPP systems. Perhaps in the future, other researchers will include questions that assess citizen’s understanding of other electoral systems that will make such comparisons possible.

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Appendix

German surveys

Political Interest

“How strongly are you interested in politics?”

0 = Not at all strong; .33 = not very strong; .66 = strong; 1 = very strong.

Party Preference

How do you feel about each of the following parties? (on a scale of –5 to +5).

Highest ranked party = Preferred party

Two or more parties ranked equally or refused = No party preference

Economy

Generally, how do you evaluate today’s economic situation in East/West Germany?

0 = Very bad; .33 = bad; .50 = neither bad nor good, don’t know; .66 = good; 1 = very good.

Education

What is your highest degree obtained? Choose from the list:

0 = still going to school; .33 = finished without degree; .67 = some university; 1 = highest (university or equivalent degree).

New Zealand surveys*Party Preference*

We would like to know what you think about each of these political parties. Please rate each party on a scale from 0 to 10, where 0 means you strongly dislike that party and 10 means that you strongly like that party. If you haven't heard about that party or don't know enough about it, please tick 'don't know'.

Highest ranked party = Preferred party

Two or more parties ranked equally or refused = No party preference

Political Interest

Generally speaking, how much interest do you usually have in what's going on in politics?
0 = Not at all interested; .33 = Slightly interested; .66 = fairly interested; 1 = very interested.

Economy

What do you think of the state of the economy these days in New Zealand? Would you say that it is—

0 = Very bad; .33 = bad; .50 = neither bad nor good, don't know; .66 = good; 1 = very good.

Education

Which one of the following indicates your highest formal educational qualification?

.14 = Incomplete primary education/none; .29 = Primary school completed;
.43 = Secondary education without UE or 6th form certificate; .57 = Complete secondary education; .71 = Nondegree professional, trade or technical tertiary qualification;
.86 = university degree.

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