What drives rental votes? How coalitions signals facilitate strategic coalition voting

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ABSTRACT

Rental voting is a coalition voting strategy, by which supporters of a senior coalition partner cast their vote for the prospective junior coalition partner to secure its representation in parliament and, hence, the formation of this coalition. We make transparent that previous research has only studied rental-voting in contexts, in which coalition signals were consistent with the rental-vote logic. Employing a qualitative identification strategy, we find evidence for rental voting only in the context with consistent coalition signals. Moreover, respondents exposed to consistent coalition signals behave similarly to voters who most likely did not receive the inconsistent coalition signals they had been exposed to.

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The greatest surprise of the German federal election of September 2013 was that the FDP, the junior coalition partner of the CDU within the incumbent government, fell short of the nationwide electoral threshold and, consequently, no longer holds any seats in the national parliament for the first time in post-war history. This came as a big surprise to many political analysts, including the authors of this paper, because they had anticipated that rental votes would bolster-up the FDP's vote share. *Rental votes* (Meffert and Gschwend, 2010, 2011) are a specific form of strategic coalition voting, where supporters of the senior coalition partner cast their vote in favor of a junior coalition partner, who is in danger of falling below the electoral threshold. Thereby, they secure the latter's representation in parliament, and in turn that the preferred coalition can form. Political analysts based their expectation on prior experience with rental votes. In particular, analysts observed an impressive case of vote-coordination at the State elections of Lower Saxony in January 2013, only shortly before the Federal election. Here, the FDP was polling at around 4—6 percent, but received an impressive 9.9 percent of the votes on election day. Most of the difference between projected and actual results was attributed to rental votes from CDU supporters. For the 2013 federal election it would have been equally important for the CDU to have the FDP enter parliament, because together they could have easily formed a majority coalition. So why did voters refrain from casting rental votes in the federal election while they had done so only a few months before? We will solve this concrete puzzle by making a more general point that coalition signals sent out by the vote-trading parties during the electoral campaign can help voters to coordinate as long as they are consistent with the rental-vote logic. This general point has new important implications for research on voting behavior in multi-party systems.

In multi-party systems voters cast their vote for a party although this does not necessarily increase the likelihood that this party gets into government (Bowler et al., 2010; Debus and Müller, 2014; Kedar, 2011; Norpoth, 1980). As single-party governments hardly exist, coalition governments are rather the norm in those systems. When votes have been turned into seats, parties in parliament try to form a new coalition government. Voters might anticipate those negotiations and cast a strategic coalition vote for a less preferred party in order to make their most preferred coalition more viable. Casting a rental vote is one conceivable strategy to accomplish this that is well documented in various other German, Austrian and Swedish elections (Cox,

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1997; Fredén, 2014; Gschwend, 2007; Meffert and Gschwend, 2010, 2011; Roberts, 1988; Shikano et al., 2009). Strategic voting theory supposes that such behavior is due to the voters' rational calculus, stressing "individualistic" factors such as coalition preferences and expectations about the next coalition government. Strategic voting theory is less concerned with explaining the total amount of rental votes in an election, but rather seeks to explain which characteristics drive individual-level rental voting. From this perspective, the amount of rental votes in an election is merely a function of the distribution of voter preferences and expectations in the electorate. Contextual factors, such as party campaign strategy and communication, are not a part of the explanation. Here the academic state of the art is strangely at odds with how rental voting is discussed in the public sphere. Political commentators and journalists traditionally tend to stress the importance of party- and campaign-level factors for explaining rental voting, such as the signals parties send out to their supporters. Strategic voting research has generally cast out this interpretation: Surely parties can't tell their voters to act strategically. Or can they?

In this paper we uncover why these contextual factors have for so long remained a blind spot of empirical research on strategic voting. We argue that strategic voting research has been subject to a serious case selection problem: So far, rental voting has only been studied (or at least been published) in electoral environments that were conductive for strategic voting. The key contribution of our paper is to show that strategic voting can be highly contextual. Parties need to create an informational environment that facilitates voter coordination. They can do so by modulating the coalition signals they send out in their campaign communication. We differentiate between three aspects of coalition signals: First, parties can engage in public commitments to govern together (Gschwend, 2004; Golder, 2005, 2006). Second, parties can vary the salience of coalition aspects in their campaign. By talking a lot about the coalition, or making common appearances during the campaign, they can prime coalition aspects in the voters mind. Thirdly, and most concretely, they can give out sublime or explicit ballot instructions to their supporters (Gschwend, 2004; Golder, 2005; Meffert and Gschwend, 2010, 2011; Roberts, 1988). We entertain that is not only the existence and amplitude of such signals that shape strategic vote coordination, but the interplay between the coalition signals of the involved parties. The signal sent out by the rental vote-seeking party (the junior partner) and the rental vote-giving party (mostly the senior coalition partner) have to be consistent in order to facilitate strategic voter coordination. This means that even if the junior partner is courting senior coalition partner supporters to rent out their vote, the senior partner can block these attempts by signaling its supporters that they should cast a sincere vote, or by downplaying coalition aspects in its campaign.

At this stage, it is extremely difficult to study the effect of party campaign strategy in a large-N comparative framework due to the absence of suitable databases. Instead, we propose a more exploratory, qualitative research design that relies on the careful selection of comparable cases. We combine this with a statistical analysis of individual-level rental voting behavior. Following the idea of the most-similar-system design, we compare individual vote choices of the same electorate for the same incumbent coalition partners, CDU and FDP, in two different elections that took place only a few months apart, using original survey data from the *Making Electoral Democracy Work* (MEDW) project (Blais, 2010). The key difference between these elections lies in the nature of the coalition signals sent out by the parties. These were consistent with the rental-vote

logic in one election and not consistent in the other. This design allows us to probe the question to what degree the consistent party signals are needed in order for voters to cast rental votes. We find that our statistical rental voting model only identifies rental voting behavior in the first election, where party signals were consistent with the rental voting logic. This indicates that rental voting depends on the electoral context, and that senior coalition partners have considerable leverage to discourage their supporters from casting rental votes.

1. Coalition preferences and expectations

Most democracies around the world have parliaments in which many parties gain representation, but no single party has a majority of seats to form a single-party government. Consequently coalition governments have to be formed. Voters in most systems cannot cast their vote for government coalitions directly, only for a party or a single candidate. They know that coalitions have to be formed after the election and systematically respond to that. Recent literature on voting behavior in multi-party systems consistently finds that voters not only consider party preferences but also coalition preferences and expectations about government formation into their decision-making calculus (Aldrich et al., 2004; Bargsted and Kedar, 2009; Blais et al., 2006; Bowler et al., 2010; Debus and Müller, 2014, 2013; Gschwend, 2007, 2004; Kedar, 2011; Meffert and Gschwend, 2010, 2011; Shikano et al., 2009).

Many coalition governments consist of a large party – the senior coalition partner – and a small party – the junior coalition partner. If the junior coalition partner does not overcome a vote threshold to gain representation in parliament such a coalition could not form. All the votes for the junior coalition partner would be wasted. This would also be an outcome that the senior coalition partner seeks to avoid because no party is likely to gain a majority of seats alone in a multi-party system. A senior coalition partner might very well be willing to trade some of their votes in order to make sure that the junior coalition partner overcomes the threshold which makes a majority of seats for this coalition more likely. Rental votes have been documented as a reasonable strategy in situations where coalitions might not be otherwise viable to govern together (Cox, 1997; Fredén, 2014; Gschwend, 2007; Laux, 1973; Meffert and Gschwend, 2010, 2011; Roberts, 1988; Shikano et al., 2009).

Two types of explanations for rental voting dominate the literature. On the one hand, political commentators as well as some scholars tend to stress an elite-driven process (Laux, 1973; Roberts, 1988). In short, voters may cast rental votes when coalition parties signaling their supporters to do so. Thus, respective party campaign strategies embedded in a particular campaign context facilitate this type of strategic voting.

On the other hand, there are scholars that subscribe to a more individualistic perspective in order to explain rental voting. They identify characteristics that increase an individual's proclivity to cast a rental vote. If voters prefer a coalition, indicated by a strong coalition preference (Meffert and Gschwend, 2010) or a small difference of the respective party preferences (Gschwend, 2007), and are at the same time uncertain that the junior coalition partner gets over the threshold, casting a rental vote is more likely. Voters who are either certain that the junior coalition partner will be represented, or voters who are certain that the small party will not get into parliament anyway, should not be motivated to cast a rental vote, even if they prefer the coalition. Thus, the impact of coalition preferences on voting behavior in

favor of the junior rather than the senior coalition partner should be conditional on the voters expectation whether the junior coalition partner gets into parliament or not. Evidence consistent with this stems from a number of German and Austrian elections where voters quite often face such coalitions. The statistical models used to analyze rental voting include coalition preferences as well as measures of to what extend it is certain that the respective junior coalition partner will get into parliament, and an interaction effect between coalition preferences and expectations to account for the conditional impact of coalition preferences.

While it seems obvious that proponents of a pure elite-driven process have a hard time explaining why only some voters cast a rental vote at best, proponents of an individualistic perspective have not convincingly refuted the elite-driven perspective. In fact, the elections that have been studied so far by different scholars (Germany: 1994, 1998; Austria: 2006; Sweden, 2010) are without exceptions elections in which coalition signals were consistent with the rental-vote strategy (Fredén, 2014; Gschwend, 2007; Meffert and Gschwend, 2010; Shikano et al., 2009). By coalition signals we understand campaign appeals by the junior coalition partner to cast rental votes in their favor which are primarily targeted at supporters of the senior coalition partner. For such signals to be consistent, the reaction of the senior partner is crucial. Of course, it would be too much to expect that the senior coalition partner openly supports such appeals. In order to be consistent (or not to be inconsistent) with such a strategy, party leaders of the senior coalition party should at least not repeatedly oppose such appeals.

To sum up, so far the literature converges on the individual determinants, such as coalition preferences and expectations, that seem to explain why some voters are more likely to cast a rental vote than others. Nevertheless, we uncovered a serious case selection problem because research on rental voting relies exclusively on cases in which party signals were consistent with the rental vote strategy. In order to learn to what degree consistent coalition signals are needed in order for voters to cast rental votes, we have to overcome the case selection problem of previous research. In the following section we argue that comparing voting behavior of voters in the Lower Saxony state election 2013 to Lower Saxonian voters in the German federal election 2013 constitute close to ideal cases to study the role that party signals play in shaping rental voting behavior.

2. Qualitative identification strategy

Do coalition signals influence rental voting behavior? In order to uncover the causal effect of coalition signals on rental voting behavior, ideally we would need to turn back time and manipulate coalitions signals in the election, and analyze differences in voting behavior between these two elections. Of course, this is not possible.[1]

Using observational data, the best we could do is to identify a universe of elections in which we could potentially observe rental voting, and analyze to which degree consistent coalition signals correlate with the amount of rental votes. However, to establish causality, we would have to guarantee a balance of all other factors influencing rental voting between treatment and control groups, i.e. by controlling for confounding factors.

Unfortunately, such a universe of cases cannot be observed, since we do have the data on neither the amount of rental votes nor a database on coalition signals across elections. Moreover, so far there is no established research that differentiates between several types of coalition signals. In particular, there is no study that distinguishes between signals that are consistent or inconsistent with the rental vote logic across several election contexts. Furthermore, election contexts vary on various dimensions that need to be controlled for when pooling them to leverage the variance in the consistency of coalition signals across a large number of election contexts.

Instead of a large-N study, we propose to study the question which role coalition signals play for rental voting with a qualitative identification strategy. Our research design seeks to balance potentially confounding factors by the careful selection of cases. To identify the effect of coalition signals, we propose to study two electoral scenarios, which are similar on many factors, but vary on the dependent variable (rental voting behavior) and the key independent variable, namely coalition signals. Such a strategy is commonly known as a most-similar-systems design. While our identification strategy is qualitative and relies heavily on local knowledge of the electoral scenarios, we combine this with a rigorous statistical individual-level model to identify rental voting behavior of the same electorate in both scenarios.

We maintain that the 2013 state election in Lower Saxony and the 2013 German Federal election are two cases, that come as close as realistically possible to the ideal design discussed above. In particular, we compare the same electorate - eligible voters of Lower Saxony - in both elections. Below, we describe on which relevant factors the two elections are similar, i.e. the confounders that we can control for by the means of case selection.[2] As no two elections are ever similar on all factors, we discuss the factors that vary between the two elections. We outline our strategies to deal with these alternative explanations. Lastly, we examine the campaign strategies of the relevant parties in order to establish that the coalition signals in these similar electoral contexts were very different.

2.1. Case-selection: similarities

The selected cases are similar in many respects relevant for rental voting: coalition composition, reelection chances of the coalition parties, institutional features of the electoral system, and the timing of the election. In both cases, the incumbent government coalition consisted of the CDU as senior and the FDP as junior coalition partner.[3] In both cases the two parties have also formed governing coalitions in the past. A CDU-FDP coalition is since the mid-1980's the most preferred combination for both parties and their supporters. It is another very important feature of our design that CDU-FDP form the incumbent coalition in both cases. In the vast majority of cases, an incumbent coalition is

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[1] Laboratory experiments, in which a controlled manipulation of signals would be a possibility (Meffert and Gschwend, 2011). However, it is nearly impossible to replicate a realistic experimental setup in the lab, that would allow to generalize the findings to real-world voting behavior.

[2] While our selection of two consecutive elections in the same electorate allows us to keep many potentially relevant factors constant, this means at the same time that the two elections can not be treated as independent cases. Thus we cannot completely rule out that merely the result of the State election influenced rental voting behavior in the Federal election. However, we think that there is no sound theoretical basis on which to suspect that the absence of rental votes in the Federal election is explained by voters taking cues from the State election. The same argument could also have led to predicting a lot of rental votes in the Federal election (as indeed one of the authors made to his co-authors at the time). Voters might just as well have taken cues from the Bavarian election that took place one week before the Federal election, which saw the FDP fall below the threshold.

[3] The Federal Government also included the CSU, the Bavarian sister party of the CDU. We treat them as one party here and, consequently for simplicity we refer to this party as CDU rather than CDU/CSU.

continued if possible, and voters are typically assumed to be aware of this. Actively campaigning against the coalition they are a part of would risk loosing their incumbency advantage (Armstrong and Duch, 2010; Duch et al., 2010; Martin and Stevenson, 2010). Having the same incumbent coalition, and both parties wanting to continue the coalition in both cases, allows us to compare the two electoral scenarios.

The circumstances under which CDU and FDP entered the election campaign were also very similar: Both governing coalitions finished their full term in office. The CDU's party leaders, Prime Minister McAllister and Chancellor Merkel, had a very high approval rating. In both elections, the CDU was predicted to gain by far the highest vote share, polling at around 40 percent in both cases. The FDP was polling at around 4–5 percent in the state race and at 4–6 percent in the federal race. In both races, the FDP was in danger of falling below the electoral threshold, which is at 5 percent in both elections. This means that in both cases, casting rental votes was an objectively valid strategy to secure a CDU-FDP coalition. The electoral rules under which these elections were held were essentially the same.[4] Holding constant the institutional setting is key for our identification strategy, as the rationale of casting rental votes is very sensitive to institutional features. Another important aspect is the close proximity of both elections, which supposedly allows to keep many contextual factors that vary over time, such as party-system and socio-demographic factors, constant.

2.2. Case-selection: differences and why they do not violate our identification strategy

Of course, not all factors can be controlled for merely by case selection. Although the two cases are similar in many factors relevant for the rental-vote logic, we identify three key differences. Most obviously, the two elections were held at different levels of government, which might influence the salience of the rental-vote logic. Second-order theory (Reif and Schmitt, 1980), however, suggests less strategic voting in State elections since there is less at stake than in federal elections. If the difference in governmental level would be a confounding factor, this would rather stack the deck against our hypothesis that rental voting was only a relevant strategy in the state election, where coalition signals were consistent.

Secondly, the set of parties, and thereby the composition of the opposition camp varied between the two elections. The federal election saw the entry of a new party, the Eurosceptic market-liberal AfD, which did not compete in the Lower Saxony state election. Although new parties always have the potential to shake up the coalition game, we argue that the AfD entry did not influence the rental vote calculus of potential rental vote givers, namely CDU supporters. The CDU had clearly excluded the possibility of a coalition with, or being tolerated by, the AfD. To CDU and FDP supporters it should have been very clear that a vote for the AfD would either be a wasted vote and at least vote against a CDU-FDP coalition. Moreover, if the AfD had entered parliament, a Grand Coalition would have been the likely outcome. Thus, there seems to be no direct influence on the likelihood of using a rental-vote whether the AfD is on the ballot or not.

Another possibility is an indirect effect of the AfD entry on rental-voting behavior. The AfD campaign might have led potential rental voters to be more uncertain about the likelihood that the FDP gets into parliament, as both parties target, at least to some degree, a similar ideological subset of the electorate. A situation, in which neither the AfD nor the FDP would have entered parliament (as happened in reality), would then be a potential consequence of the AfD entry. But, if anything, this should have facilitated vote-coordination on the part of CDU supporters in the federal election even more. We therefore think, although the entrance of the AfD constitutes a violation of our most-similar-system design, it should bias our findings (if at all) in a direction opposite to our hypothesis, in turn making this violation of our research design ignorable.

A third critical point in which the two cases differ is the constellation of opposition parties. While the socialist Left party (Die Linke) was unlikely to overcome the threshold in Lower Saxony, the Left was very certain to enter parliament at the federal level. This had repercussions on which coalition options would be viable in the end. If the FDP had not entered parliament in the state election, the most likely coalition outcome would have been a SPD-Green coalition, in the federal election the outcome in this situation was a Grand Coalition of CDU and SPD. CDU supporters, as potential rental vote givers, would have had a far better fall-back option should the FDP not succeed to pass the threshold in the federal election. Although the CDU would have to give up a substantial amount of the ministerial portfolio to the center-left SPD, the CDU would still play a leading role in the government holding the chancellor position among other things. This was not to be expected in Lower Saxony, where a failure of the FDP would likely have meant loosing government participation completely. This means that the cost of not casting rental votes were higher for policy-seeking CDU supporters in the state election than in the federal election. This constitutes a powerful alternative explanation for the low amount of rental votes in the federal election. We acknowledge that we cannot adequately rule out this alternative explanation merely by case selection. We, therefore, derive an observable implication of the fall-back option as an alternative explanation and test its explanatory power in section 4.1. Our reasoning is as follows: As CDU supporters differ in their evaluation of potential coalition options, there are some for which a CDU-SPD coalition is a viable alternative to a CDU-FDP coalition, and some which dislike a CDU-SPD coalition nearly as much as a SPD-Greens coalition. If this alternative mechanism is actually what is going on, we should find that the probability of a CDU supporter to cast a rental vote is conditional on the utility difference between these two alternative governmental coalitions. In section 4.1 we test for this alternative explanation and find no support it, indicating that the absence of rental voting in the federal election cannot be attributed to this difference between the two elections.

2.3. Differences in outcomes

The two elections produced very different outcomes for the incumbent parties. In the Lower Saxony state election, the FDP was able to gain an astonishing 9.9 percent, which was well above their polling numbers. The German polling firm Forschungsgruppe Wahlen (2013) estimated in a post-election report that the most preferred party of 80 percent of actual FDP voters was indeed the CDU. This indicates a vast amount of rental votes by CDU supporters. Another indicator for this was the weak result for the CDU, which only gained around 36 percent, instead of the predicted 40 percent according to pre-election polls. A plausible explanation is that around four

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[4] At the federal level, "Overhang-seats" used to be an additional incentive to coordinate votes between coalition partners. The Federal election of 2013 was however held under a new election law, which prohibits this practice. Both electoral systems now fully balance dis-proportionality arising from the two-tier mixed system, and are equivalent in all aspects that are relevant to the rental vote argument.

percentage points of the CDU's potential vote share had been "rented out" to the FDP. On the contrary, in the federal election just a few months later, the FDP did not seem to have benefited from rental votes at all. The FDP fell short of the 5 percent threshold, and lost representation in the federal parliament for the first time in German post-war history. The FDP reached only 4.2 percent of the party-list votes in the federal election within Lower Saxony.

Although these differences in aggregate election results suggest that there was rental voting in the state election, it is not a foregone conclusion, however, that there was no rental voting in the federal election. Based on the aggregate electoral outcomes, we can only infer that the absolute amount of rental votes was insufficient to carry the FDP into parliament. Following the individualistic explanation of rental voting, the amount of rental voting is a function of the distribution of coalition preferences and expectations in the electorate. Hence, it might well be that there was rental voting in the federal election as well, only the distribution of preferences and expectations motivated merely a small number of voters to cast rental votes. This has to be taken into account, which means that evidence for the rental-vote explanation has to be provided on the individual level. We do so in the next chapter of our paper, while we validate our assumption that the coalition signals have been, in fact, different (our hypothetical treatment) in the following section.

2.4. Differences in coalition signals

More difficult than assessing the difference in outcomes is to closely trace the party signals and appeals that were sent out by the involved parties during the election campaign. We distinguish two kinds of signals: coalition commitments and ballot instructions. While coalition commitments are communicated very clearly in public, ballot instructions may be very subtle and may not take place in the public sphere. This makes it sometimes very hard for researchers to pin-point these signals. Especially the senior coalition party, which is trading away votes, has to be very careful, as openly campaigning for another party may have negative repercussions with party activists and the voter base. Not opposing ballot instructions by the junior partner is therefore oftentimes the best the senior party can do to help their junior partner. In order to reliably trace coalition and vote trading signals, we have very closely followed the two electoral campaigns by constantly monitoring media reports and party communication. Additionally, we can rely on qualitative interviews with CDU and FDP campaign managers conducted both after the Lower Saxony state election and after the federal election as part of the Making Electoral Democracy Work (MEDW) project. Although these ex post facto interviews have to be taken with a grain of salt, they provide immensely valuable details to complete the outside picture of party campaign strategies.

During both campaigns for the state as well as the federal election, both the CDU and FDP had voiced early on in the campaign a clear preference to continue the incumbent government coalition. In both cases, the FDP strongly committed themselves to a CDU-FDP coalition, ruling out participation in any other coalition during the campaign. During the Lower Saxony state election, the CDU had ruled out entering a coalition with the Greens and was strongly committed to the FDP option. A "Grand Coalition" with the SPD was not ruled out, but played a less prominent role in the state election because this fall-back option seemed unlikely to become relevant, since one of the ideological camps was to win a majority of seats either way. On the contrary, before the federal election, the CDU had committed

themselves only half-heartedly to a continuation of the CDU-FDP coalition. While it was apparent that this combination would be the most preferred one for the CDU, the CDU did not actively campaign for the coalition. CDU leaders referred to a CDU-SPD coalition as an alternative option, should the incumbent coalition not gain a majority in parliament. This refusal to fully commit to a CDU-FDP coalition was heavily criticized by FDP leaders during the election campaign.[5]

In the campaign for the Lower Saxony state election, the CDU was reluctant to actively appeal to their supporters to cast rental votes, but it did not consistently refute such appeals from the FDP. On one occasion the CDU prime minister McAllister even held a speech at a FDP party conference, and at a CDU party conference had voiced sympathy for the prospect that a small percentage of CDU supporters would cast their vote for the FDP, to help it overcome the electoral threshold.[6] These statements were widely publicized and discussed in the regional and national media. During the last weeks of the campaign, in which the FDP launched a public campaign for party list votes from CDU supporters (*Zweitstimmenkampagne*), the CDU campaign tried to downplay these appeals, but to no avail.[7] Until election day, the question whether the FDP "would make it" dominated the campaign coverage, and the viability of casting rental votes to ensure a CDU-FDP coalition received wide-spread attention in the media.

What role did ballot instructions play in the campaign for the federal election? The results of the Lower Saxony election and the astonishing amount of vote trading were closely studied by campaign managers, especially within the CDU. Already right after the state election, CDU party leaders publicly indicated that such a massive transfer of votes was unacceptable as it had weakened the CDU, and was to be avoided in the federal election. Throughout the campaign, the CDU tried to avoid linking their fate too closely to that of the FDP. It seems as if they decided not to run a campaign in which the question about the future coalition would play a central role. The CDU's weak coalition statements fit into this picture, however another motivation may have been not to taint the CDU by the low popularity ratings of the FDP. A number of talking points were used in CDU's party communication throughout the campaign, which were aimed at diluting vote trading considerations, a topic which was prevalent in the public sphere throughout the campaign, as the FDP's polling numbers oscillated around the threshold of 5 percent.[8] The Bavarian state election, which was held on 15 September 2013, one week before the federal election, saw the FDP fall below the threshold in this election. Right after the Bavarian results were released, the FDP launched explicit attempts to woo CDU supporters to help out the FDP in the federal election. In a widely publicized and commented on press conference on the September 16th, the FDP leadership openly asked for rental votes from CDU supporters, e.g. by claiming that if they wanted Angela Merkel (CDU) to remain in office, they should cast their vote for

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[5] http://www.rp-online.de/politik/deutschland/bundestagswahl/bruederle-irritiert-von-merkels-koalitionsaussagen-aid-1.3613405 (last accessed: September 19, 2014), RP-online 19.08.2013.

[6] http://www.haz.de/Hannover/Aus-der-Stadt/Uebersicht/CDU-veranstaltet-ihren-eigenen-Neujahrsempfang (last accessed: September 19, 2014), HAZ.de 01.03.2013.

[7] These attempts included direct mailings to CDU-close households, clarifying that the CDU competes for both votes. "Both votes for the CDU" was used as an additional slogan on party communication such as on billboards and websites during the last weeks of the campaign.

[8] Talking point were among others: "Give both votes for the CDU","The FDP will make it into parliament on its own.", "The CDU does not give any votes away".

the FDP. This was met by stiff opposition from CDU leaders on the same day, who stressed that this is not true, and that the CDU is fighting for every single vote. As CDU deputy chairwoman Julia Klöckner put it: "Each party fights for itself. Each vote counts".[9] In the last week of the campaign, the CDU continued to press these messages home. This also included direct mailings to potential voters, that stressed the need for a straight CDU ticket if they wanted Merkel to remain chancellor.[10] All in all, the CDU signaled very strong opposition of trading votes with the FDP.

We can summarize the above description of the two campaigns as follows. We have seen that although the electoral situation in which the coalition partners found themselves at the beginning of the campaign was similar in both electoral contexts, the outcome differed widely. Unlike the federal election, in the state election the FDP profited from an unprecedented amount of rental voting. We have also seen that coalition and vote trading signals sent out by the senior coalition partners were very different. In the state election those signals have been consistent with the rental vote logic. In the federal election, the CDU largely refused to exclusively commit themselves to a future CDU-FDP coalition, and strongly refuted vote trading signals from their potential junior partner.

3. The rental-vote model

Based on prior research (Gschwend, 2007; Meffert and Gschwend, 2010), we outline an individual-level rental voting model for the two electoral scenarios under study. The key to identify rental votes is to estimate the effect of an individual's expectation whether the junior coalition partner will get into parliament on the voting decision between the potential coalition partners. Voters with a strong coalition preference who are uncertain whether the junior coalition partner will get into parliament are potential rental-vote givers. These voters should be more likely to cast their vote for the junior coalition partner in order to help this party overcome the threshold of representation. Voters that also favor such a coalition, but are either certain that the junior coalition partner will fall short of the electoral threshold, or who are certain that the this party will enter parliament should not be motivated to cast a rental vote for the junior coalition partner. It would be either wasted, in case the party will not get into parliament, or not needed if the junior party is expected to get into parliament anyway.

In the following, we set up a choice model in which coalition preference for a CDU-FDP coalition are allowed to affect the probabilities of voting for one of the coalition partners conditional on an individual's expectation whether the FDP as junior coalition partner will gain representation. We focus our analysis on the choice between the FDP ($j = 1$), CDU ($j = 2$) or any other party ($j = 3$). Let y_i denote the vote choice of individual voter i:

$$y_i = \begin{cases} 1 & FDP \\ 2 & CDU \\ 3 & other\ party \end{cases} \quad (1)$$

We define U_{ij} to be an individual's utility derived from choosing party $j \in \{1,2,3\}$. Consistent with prior research we model an individual's utility to vote for the FDP, U_{i1}, and the CDU, U_{i2}, as a

function of party preferences (P_{ij}), coalition preferences for the CDU-FDP coalition (K_i) and an individual's expectation (Pr_i) whether the FDP is uncertain to enter parliament as well as an interaction effect to account for the conditional nature of the effect of coalition preferences. To identify the model we set the utility for the other option equal to zero.

$$U_{i1} = \beta_1^0 + \delta P_{i1} + \beta_1^1 K_i + \beta_1^2 Pr_i + \beta_1^3 Pr_i \times K_i + \varepsilon_{i1} \quad (2)$$

$$U_{i2} = \beta_2^0 + \delta P_{i2} + \beta_2^1 K_i + \beta_2^2 Pr_i + \beta_2^3 Pr_i \times K_i + \varepsilon_{i2} \quad (3)$$

$$U_{i3} = \varepsilon_{i3} \quad (4)$$

where β_j^0 are the constants and the remaining β_j^k are the coefficients necessary to estimate the conditional effect of the preference for the CDU-FDP coalition on vote choice depending on an individual's uncertainty whether the FDP will get represented in parliament. Finally, δ represents the effect of party preferences on an individual's utility. While the effect of party preferences varies over choices, implying that the difference between an individual's preference for FDP and CDU does determine the probability to vote for FDP rather than CDU, the conditional effect of the coalition preference varies merely over individuals. Assuming that the error term ε_{ij} follows a type-1 extreme value distribution, a conditional logit model can be derived (McFadden, 1973). If we further divide an individual's utility into a systematic (V_{ij}) and a stochastic (ε_{ij}) component, we get $U_{ij} = V_{ij} + \varepsilon_{ij}$ and obtain the following probability model:

$$Pr(y_i = j) = \frac{exp[V_{ij}]}{\sum_{k=1}^{3} exp[V_{ik}]} \quad (5)$$

The rental vote logic implies that there is a conditional effect of coalition preferences on the probability to vote FDP rather than CDU. An increase in voting probabilities depends on the expectation wether the FDP will get into parliament. If voters with a strong preference for a CDU-FDP coalition are uncertain whether the FDP will enter parliament, they should be more likely to vote for the FDP than for the CDU. This should not necessarily be the case if voters are certain that the FDP will enter parliament anyways or fall clearly short of the threshold if representation.

3.1. What if coalition signals matter? Two observable implications

While the operationalization of one possible explanation of rental voting in the literature — as individualistic process — is fairly straightforward to implement, it is harder to also provide evidence of the elite-driven perspective. What if party signals play a role in explaining rental voting, though? Clearly, this is close to impossible to test positively, if we compare merely two elections. So how can we increase our confidence that party signals might be a driving force behind rental voting? If signals facilitate rental voting, we expect two observable implications to be supported by the data.

One implication is that we should find the individual-level logic of the rental-vote mechanism to operate in the state election, where party signals were consistent with the rental-vote logic, and not to operate in an electoral context in which party signals were inconsistent with the rental-vote logic, namely the federal election. Thus, favoring a CDU-FDP coalition and being uncertain whether the FDP will overcome the 5 percent threshold should *not* systematically increase the likelihood of voting for the FDP in the *Bundestag* election while it should in the Lower Saxony

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[9] http://www.sueddeutsche.de/politik/liberale-nach-bayern-wahldebakel-fuer-die-fdp-geht-es-jetzt-ums-ganze-1.1771789 (last accessed: September 19, 2014), Süddeutsche.de, 09.16.2013.

[10] http://www.spiegel.de/politik/deutschland/angela-merkel-wirbt-in-wahlbrief-um-beide-stimmen-fuer-cdu-a-923150.html (last accessed: September 19, 2014), Spiegel-Online 09.19.2013.

election.

A second observable implication of the elite-driven process is that voters that did not fully receive the party signals should be less strongly influenced by them. Thus, voters who do not receive signals that are inconsistent with the rental-vote logic should still follow the same decision rule as before, and act on the individual-level logic of rental voting. Therefore, we expect to find no support for the rental-vote model in the federal election, where party signals were inconsistent, for voters who payed close attention to political news, and (more) support for the rental-vote model for voters who payed less attention. We proceed to test these implications empirically using new survey data.

4. Empirical analysis

Our data is taken from the *Making Electoral Democracy Work* (MEDW) project (Blais, 2010). The data comes from an online survey conducted by Harris/Decima two weeks prior to the elections. The target population was in both cases German citizens eligible to vote in Lower Saxony. The sample for the state election contains 1023 respondents and 1211 respondents for the federal election. As pointed out above, the conventional interpretation is that rental votes helped the FDP overcome the 5% threshold in the state election, but not in the federal election. To what degree is this interpretation supported by the data? A suitable descriptive statistic is the percentage of respondents whose most preferred party is the CDU, but who intend to vote for the FDP. While in the state election 21 percent of CDU supporters intended to vote for the FDP, only 5 percent of CDU supporters intended to cast their vote to the FDP in the federal election. This constitutes convincing evidence that CDU supporters were indeed more likely to rent out their vote to the junior partner in the state election as opposed to the federal election. However, we cannot conclude from the low aggregate numbers of apparent rental votes in the federal election that the rental vote model did not apply there. It is the interaction between uncertainty about the success of the small coalition partner as well as a strong coalition preference that drive rental voting according to the rental vote model. Whether rental votes were cast in the federal election as well has therefore to be assessed at the individual level.

The survey contains conventional measurements of the theoretical concepts that are part of the rental vote model. Party and coalition preferences are measured using like/dislike rating scores on a 11-point scale. We use ratings of the FDP and CDU as the respective party preferences and the rating of CDU-FDP coalition as coalition preference. Particularly important for the rental vote model is the measurement of the respondents' expectation of whether the FDP will enter parliament. The surveys asked respondents to express the perceived likelihood that the FDP will enter parliament using a 11-point scale.[11] Respondents who expect that the probability is around 50 percent are considered to be most uncertain. Researcher have in the past relied on 4-point item to assess this uncertainty and constructed a dummy (recoding both middle categories to '1') to identify respondents who are most uncertain whether the FDP will be represented in parliament (Gschwend, 2007; Meffert and Gschwend, 2010; Shikano et al., 2009). We follow this approach and create a dummy variable

"uncertain FDP" that assigns the value '1' to respondents in the three middle categories (4–6) of the 11-point scale and to all others the value '0'.[12]

Fig. 1 displays the distribution of the key explanatory variables for potential rental vote givers, i.e. voters whose most preferred party is the CDU. Dashed vertical lines indicate the sample means. These descriptives underline the validity of our argument that the two elections under investigating constitute most similar electoral scenarios: The distribution of FDP ratings, CDU-FDP coalition ratings and expectation about the FDP entering parliament among CDU supporters is very much similar in the two elections. Both the FDP and a CDU-FDP coalition received only slightly better ratings by potential rental vote givers in the federal scenario. Substantive differences between the distributions can only be observed for the likelihood that the FDP enters parliament. Here, more Lower Saxon CDU supporters were very certain that the FDP would enter parliament in the federal election, compared to the state election, potentially drawing on the heuristic that the FDP had always been part of the post-war German Federal parliament. This imbalance is of minor concern for our analysis, though, since strategic voting theory leads us to expect the tails of the distribution to have the same behavioral consequences: Both a voter, who is very certain that the FDP will enter, and a voter, who is very certain that the FDP will not enter parliament, should not cast a rental vote. This is reflected in our afore mentioned uncertainty indicator variable, which is very much balanced across the two elections.[13] Thus, we should expect the same share of respondents to be at "risk" of casting a rental vote in both elections, if the rental vote model would equally apply to both elections. As this is clearly not the case - much fewer rental votes were cast in the federal election - this descriptive analysis supports the interpretation that rental voting worked differently in the two elections. In the next stage of our empirical analysis, we directly test the support for the rental vote model in the two electoral scenarios.

Employing the rental vote model outlined in the previous section, we find evidence of rental voting in the state, but not in the federal election. Table 1 presents parameter estimates and the associated standard errors in parentheses. Model 1–2 show the results for the state election and Model 3–4 for the federal election. Model 1 and Model 3 are baseline models that include party preference, coalition preference, party identification and further controls (*Age, female, education, religion (christian) income* and *political interest*).[14] Model 2 and Model 4 further include the effect of uncertainty about the FDP overcoming the electoral threshold, and the

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[11] The exact wording of the question in German in Lower-Saxony is "*Wie wahrscheinlich ist Ihrer Meinung nach der Einzug der folgenden Parteien in den Landtag von Niedersachsen?*".

[12] The results are unaffected by the decision to employ the dummy variable here. We run the main analysis folding the scale in the middle. The results are described in Appendix B.3. Table B.8 reports the parameter estimates obtained using this alternative measurement.

[13] Percentage of respondents "uncertain" whether FDP gets into parliament: state election 51%, federal election 50%. For additional descriptives of all variables included in the analysis we would like to refer the reader to Tables A.4 and A.5 in the Appendix. Fig. A.4 in the Appendix further shows the distribution of perceived likelihoods for three coalition options (CDU-FDP,CDU-SPD and SPD-Greens) in the state and in the federal elections. Fig. A.4 in the Appendix plots the distribution of rating scores for these coalitions. The figures show that the average rating scores in the two elections for the different coalition are very similar. The coalition likelihoods, however, reveal that any government with a CDU participation was perceived to be slightly more likely in the federal compared to the state election.

[14] *Party ID* is operationalized using a survey question that asked the respondents if they are generally close to any party. We code respondents as CDU or FDP party identifiers if they indicate that they are close to the CDU or the FDP. Education is measured using a question regarding the highest obtained school leaving certificate, with highest value of seven indicating university diploma and lowest no school leaving certificate.*Female* is a dummy using a question regarding self-reported gender and *Age* is recovered from the birth date of the respondent. Religion is coded one if the respondent indicates to be part of any christian faith, catholic, protestant or other christian religion. Income is measures using 12 increasing categories. Political interest is constructed from a 11 point scale that asks respondents about their interest.
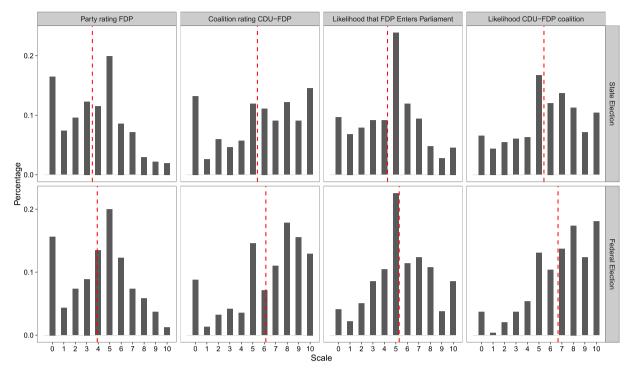
Fig. 1. Distribution of explanatory variables in state and federal election for CDU supporters.

Table 1
Test of first observable implication: Rental vote model for Lower Saxony state and federal election.

	State election				Federal election			
	Model 1		Model 2		Model 3		Model 4	
Party rating	0.50		0.51		0.79		0.81	
	(0.08)		(0.08)		(0.10)		(0.11)	
Party ID	1.46		1.47		2.38		2.38	
	(0.34)		(0.35)		(0.47)		(0.47)	
	FDP	CDU	FDP	CDU	FDP	CDU	FDP	CDU
Constant	−11.40	−5.54	−10.28	−5.31	−8.24	−6.66	−8.36	−6.84
	(1.92)	(1.01)	(2.23)	(1.06)	(1.85)	(1.11)	(2.08)	(1.19)
Rating CDU-FDP	0.86	0.27	0.63	0.14	0.48	0.26	0.42	0.23
	(0.15)	(0.06)	(0.18)	(0.07)	(0.12)	(0.07)	(0.17)	(0.09)
Uncertain FDP			−3.75	−1.88			−0.28	−0.08
			(2.32)	(0.87)			(1.79)	(0.80)
Rating CDU-FDP × Uncertain FDP			0.69	0.47			0.16	0.08
			(0.30)	(0.16)			(0.26)	(0.14)
Female	−0.09	−0.11	−0.05	−0.13	1.08	0.11	0.99	0.09
	(0.52)	(0.32)	(0.53)	(0.33)	(0.60)	(0.34)	(0.61)	(0.34)
Age	0.02	0.01	0.02	0.01	−0.01	0.01	−0.01	0.01
	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)
Education	0.11	−0.03	0.10	−0.01	0.04	0.02	0.01	0.01
	(0.17)	(0.10)	(0.17)	(0.10)	(0.18)	(0.11)	(0.19)	(0.11)
Religion	0.30	−0.12	0.48	−0.01	−1.14	−0.18	−1.06	−0.17
	(0.52)	(0.32)	(0.53)	(0.33)	(0.57)	(0.36)	(0.58)	(0.36)
Income	0.08	0.00	0.08	0.01	0.06	0.02	0.07	0.03
	(0.16)	(0.09)	(0.16)	(0.10)	(0.18)	(0.10)	(0.18)	(0.10)
Pol. Interest	−0.01	−0.04	−0.01	−0.05	−0.13	−0.21	−0.11	−0.20
	(0.12)	(0.07)	(0.12)	(0.08)	(0.13)	(0.08)	(0.14)	(0.09)
Log-Lik	−199.53		−191.89		−173.96		−172.58	
N	557		557		574		574	
2* Lik Ratio			15.28				2.78	
P-value			0				0.25	

Note: Table reports point estimates and standard errors in parentheses. Estimates are obtained by maximizing the likelihood numerically using Broyden–-Fletcher–Goldfarb–Shanno algorithm as implemented in R's 3.0.2 optim function.
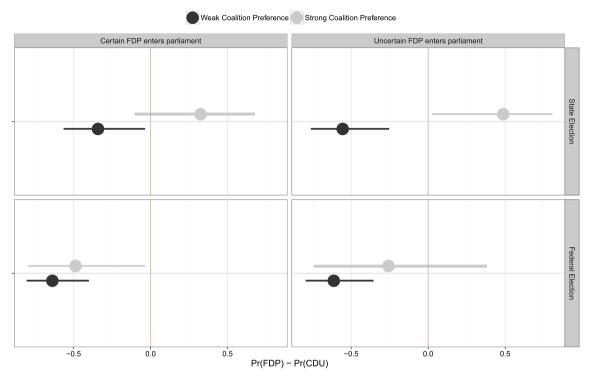
Fig. 2. First difference to vote FDP rather than CDU with varying coalition ratings in federal and state election.

interaction of the uncertainty dummy variable with CDU-FDP coalition ratings.

In both baseline models we estimate that the FDP gains substantially more from higher coalition preferences than the CDU (holding all other factors constant). This can be inferred from the larger coefficient estimate of CDU-FDP coalition ratings on voting probabilities for the FDP compared to the CDU, relative to the common baseline. Both differences in coefficients are substantial, but more pronounced in the state election. This means that, on average, the FDP benefited more from higher CDU-FDP coalition ratings in the state than in the federal election. For rental voting to take place, this difference should even be stronger when we compare the respondents that are uncertain whether the FDP will enter parliament, to those that are certain that the FDP will enter or not enter. Thus, we expect the interaction term for the FDP to be substantially different from zero and larger than the interaction term for the probability to vote CDU.[15]

For the state election (Model 2), both interaction effects are statistically significant (0.69 (0.30) and 0.47 (0.16)). The interaction effect is larger for the FDP, implying that with increasing coalition preferences the utility for the FDP increases stronger for uncertain voters than for certain voters. Interestingly, the overall importance of coalition ratings increases for uncertain voters, as both interaction effects are positive. This can be interpreted as evidence that coalition preferences are more important for uncertain voters. For the federal election (Model 4), both interaction terms are not statically distinguishable from zero (0.16 (0.26) and 0.08 (0.14)), indicating no support for the rental vote model in the federal election.

In order to facilitate the interpretation of the results, we set up relevant scenarios and simulate predicted probabilities following common simulation approaches (King et al., 2000).[16] We investigate predictions from the model of an otherwise average voter with a strong preference for the CDU (CDU rating: 10), who also likes the FDP (FDP rating: 8). We further suppose that the voter has no party identification with either of the two parties. For this voter we simulate predicted probabilities for varying strengths of coalition preferences, with weak coalition preferences (6) and strong coalition preferences (10). We compare the voter's predicted probability if she is uncertain whether the FDP will enter parliament with a situation where she is certain about the fate of the FDP. To analyze the increase in probability to vote for the FDP compared to the CDU, we depict the first difference between the two predicted probabilities. If the difference is positive, voters rather cast their vote for the FDP than the CDU, and vice versa if the difference is negative. Fig. 2 shows the first difference we obtained from the state (in upper panel), as well as, for the federal election (lower panel). The left panels show the predicted probabilities for a respondents that are certain about the FDP entering parliament, and the right panel for an uncertain voters.

In the state election scenario, we observe an overall increase in probability to vote for the FDP compared to the CDU with increasing coalition ratings, for both certain and uncertain voters. Nonetheless, the effect is substantially stronger for uncertain voters. While voters with a weak coalition rating rather vote for the CDU (First Difference: −0.55) than the FDP, voters with high coalition ratings are more likely to vote for the FDP rather than for the

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[15] The results discussed here, are robust to an alternative model specification that subsets the data to CDU supporters only. For a detailed discussion of this alternative model strategy please see Appendix B.2. The regression results are reported in Table B.7.

[16] Interpreting interaction effects in generalized linear models is challenging as the marginal effect depends on the predicted probabilities (Ai and Norton, 2003; Berry et al., 2010). Conclusions about the interaction effect based on the significance level of coefficients can be misleading. Even if an effect is found to be insignificant, for parts of the sample the effect might still be different from zero.

Table 2
Test of second observable implication: Results from the rental vote model in the federal election, for subpopulations with varying degrees of news attention.

	Subsample 1: Low attention to news		Subsample 2: High attention to news	
Party rating	1.24		0.95	
	(0.28)		(0.21)	
Party ID	3.60		3.87	
	(1.06)		(1.10)	
	FDP	CDU	FDP	CDU
Constant	−14.97	−9.12	−8.57	−4.52
	(5.49)	(2.63)	(4.54)	(2.21)
Rating CDU-FDP	−0.05	0.17	0.68	0.23
	(0.30)	(0.18)	(0.42)	(0.16)
Uncertain FDP	−3.53	0.79	0.98	−0.08
	(3.96)	(1.74)	(3.86)	(3.86)
Rating CDU-FDP × Uncertain FDP	1.13	−0.02	−0.15	0.13
	(0.57)	(0.29)	(0.51)	(0.26)
Female	1.30	0.21	2.64	−0.71
	(1.54)	(0.62)	(1.10)	(0.65)
Age	0.07	−0.03	−0.05	0.02
	(0.05)	(0.02)	(0.04)	(0.02)
Education	0.48	0.06	−0.10	0.04
	(0.36)	(0.24)	(0.33)	(0.17)
Religion	−0.69	−0.49	−2.13	0.61
	(1.19)	(0.67)	(1.07)	(0.76)
Income	0.04	−0.01	0.30	−0.04
	(0.34)	(0.18)	(0.40)	(0.20)
Pol. Interest	−0.35	−0.10	−0.37	−0.70
	(0.26)	(0.14)	(0.30)	(0.23)
Log-Lik	−50.75		−59.17	
N		221		233

Note: Table reports point estimates with standard errors in parentheses. Estimates are obtained by maximizing the likelihood numerically using Broyden–-Fletcher–Goldfarb–Shanno algorithm as implemented in R's 3.0.2 optim function.
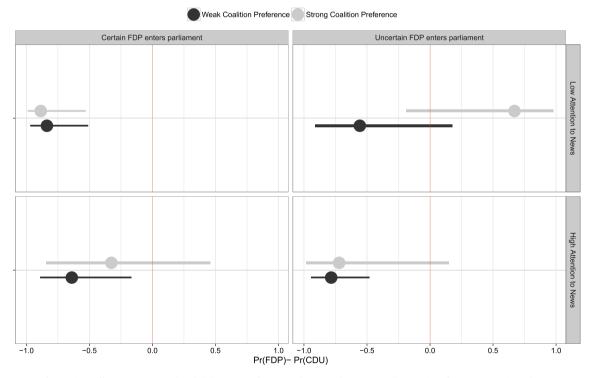

Fig. 3. First Difference in Expected probability to vote for FDP and CDU, with varying coalition ratings for news attention subsets.

CDU (First Difference: 0.49). This can be interpreted as clear evidence for rental voting: A supporter of the senior coalition partner with strong coalition preferences rather casts her vote for the junior partner, if she is uncertain whether the FDP will make it above the threshold. In the federal election scenario, the first difference in voting probabilities remains negative independent of coalition ratings and perceived uncertainty. This means that CDU supporters vote for the CDU, irrespective of their expectation what will happen to the FDP. Based on this, we conclude that we are not able to identify rental voting behavior in the federal election. These results

support our first observable implication indicating that coalition signals matter. Coalition signals facilitate rental votes if the signals are consistent with the rental-vote logic.

Observing the rental vote model to work in the state but not in the federal election puts into question the general applicability of the rental vote model. This model apparently does not apply in one electoral context, while it does in a very similar one. Why is that? Obviously, party signals are the elephant in the room. Having acknowledged that it is close to impossible to employ a research design that allows us to parameterize the impact of coalition signals on rental voting behavior, we teased out a second observable implication which can provide some evidence for our argument that such signals matter.

If rental voting depends on consistent coalition signals, the rental vote model should still apply to voters that did not receive the signals and, particularly, the inconsistent signals in the federal election campaign. To test our second observable implication, we estimate the rental vote model on two subpopulations of the federal election data. We divide the sample according to the respondents' self-reported news attention. In the survey respondents were asked how closely they follow the political news on different media channels (Newspaper, TV, Radio, Internet). We take the average over these items and perform a median-split: One half containing the respondents whose news attention falls below the median value of overall attention to political news, the other containing those who paid above-median attention to political news. If party signals matter, we should find support for the rental voting model in the sample with low news attention, but not in the sample of respondents with high news attention that are most likely to have received the inconsistent signals.

Table 2 shows the models estimates for the two sub-populations.[17] The estimated coefficient (1.13) of the interaction effect on FDP voting-probability is significantly larger than zero for the low-attention subset, indicating support for the rental voting logic. We find no signs of rental voting in the high-attention subset, though. Here, both interaction effects are not significantly different from zero and the interaction effect for the FDP is even negative. The simulated first difference to vote for the FDP rather than CDU support the importance of the interaction term (Fig. 3).[18] The first difference increases for uncertain voters with stronger coalition preferences in the subsample of low-attention respondents, indicating that a CDU supporter becomes more likely to cast a rental vote for the FDP. In the high-attention subsample, the first difference stays negative, irrespective of coalition rating and uncertainty that the FDP will enter parliament. This can be interpreted as evidence for the effect of inconsistent coalition signals: Voters that pay low attention to political news, and are less likely to receive the (inconsistent) signals sent out by the parties, tend to follow the individualistic rational logic of rental voting.

To summarize, the results of our analysis highlight the importance of the context in which rental voting takes place. While we can identify rental voting in the Lower Saxony state election, we find no evidence that rental voting played out in the same way in the federal election, although the two electoral contexts were very similar and produced the same incentives to cast rental votes. The reason is that coalition signals were consistent with the rental-vote logic such that the signals did facilitate rental votes in the state election but not they were inconsistent with the rental-vote logic in the subsequent federal election. Thus, whether coalition signals are consistent or not matters for voter coordination.

The fact that in the federal election we still identify rental voting for respondents that pay less attention to political news provides further evidence that campaign signals matter. Those voters presumably were less likely to perceive inconsistent coalition signals and most likely relied on their experience that those parties, who formed the incumbent government, were in this together again (Armstrong and Duch, 2010; Duch et al., 2010; Martin and Stevenson, 2010).

4.1. Alternative explanation: difference in coalition options

There is a potentially powerful alternative explanation for the apparent low number of rental votes in the federal election and the high number of rental votes in the state election that has nothing to do with coalition signals. In section 2.2 we argued that the cost of not casting rental votes were higher for policy-seeking supporters in the state election than in the federal election because the likely coalition options differed between state and federal election.

The key difference between the coalition options in the two elections is as follows: In the federal election, the CDU had a fall-back option of a CDU-led "grand coalition" with the SPD, should the FDP have fallen below the electoral threshold. In the state election, the CDU would have lost government participation completely. This difference in opportunity costs of not acting strategically might have led CDU supporters to not cast a rental vote in the federal election. This explanation offers an entirely different mechanism for rental voting that is neither part of the standard rental voting model nor appreciated yet in the coalition voting literature.[19] Systematically developing this perspective further is beyond the scope of this article. However, we would like to provide some evidence that we do not consider this to be an convincing alternative explanation to the striking difference in rental voting behavior between state and federal election. Our analytical strategy is as follows. We suppose this alternative explanation were true and derive an observable implication that can be tested with the data we work with here. The evidence we uncover based on this observable implication does not support, though, the alternative explanation about the difference in coalition options for the CDU.

Rather than the uncertainty whether the FDP gets into parliament the alternative explanation stipulates that rental voting is a function of how much respondents like other viable coalition options, relative to the CDU-FDP coalition. If this alternative explanation is also consistent with rental voting in the state election and the absence of rental voting in the federal election, we should find that the probability of casting a rental vote is conditional on the difference of the utility difference between a CDU-FDP and CDU-SPD coalition and the utility difference between a CDU-FDP and a SPD-Greens coalition. Given that a respondent's evaluation of alternative coalition options are relative to the same baseline, namely the preferences for a CDU-FDP coalition that is part in both utility differences, we can instead rely on the utility difference between a CDU-SPD and SPD-Greens coalition to model whether alternative coalition

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[17] We run the same analysis for the state election as well. The estimated regression parameters, reported in Table B 6 in the Appendix, show that the model results for state election differ from the federal election in important ways. We find the strongest indication of rental voting for the low-attention group, but also tentative support in the high-attention group. Appendix B.1 describes the results in more detail.

[18] We employ the same covariate setup as above.

[19] We like to thank both reviewers for pointing us to this alternative mechanism.

Table 3
Results from a multinomial logit model to test an alternative explanation of rental voting: difference in coalition options.

	State election				Federal election			
	Model 1		Model 2		Model 1		Model 2	
	FDP	CDU	FDP	CDU	FDP	CDU	FDP	CDU
Constant	−9.24	−6.54	−9.51	−5.66	−7.22	−8.44	−6.01	−7.63
	(1.70)	(1.03)	(1.94)	(1.07)	(1.61)	(1.16)	(1.63)	(1.25)
Rat. CDU	0.00	0.61	−0.10	0.44	−0.13	0.99	−0.23	0.78
	(0.14)	(0.09)	(0.15)	(0.10)	(0.15)	(0.12)	(0.15)	(0.13)
Rat. CDU-FDP	0.96	0.29	1.02	0.26	0.88	0.27	0.86	0.41
	(0.15)	(0.06)	(0.18)	(0.07)	(0.15)	(0.07)	(0.15)	(0.10)
Rat. CDU-SPD − Rat. SPD-Greens			0.39	0.16			−0.03	0.43
			(0.29)	(0.08)			(0.21)	(0.13)
Rat. CDU-FDP × (Rat. CDU-SPD − Rat. SPD-Greens)			−0.03	0.01			0.04	−0.01
			(0.04)	(0.02)			(0.03)	(0.02)
Female	−0.15	−0.04	−0.18	0.01	0.37	0.20	0.18	0.04
	(0.48)	(0.31)	(0.49)	(0.32)	(0.50)	(0.32)	(0.53)	(0.36)
Age	0.02	0.00	0.02	0.00	−0.00	0.01	−0.01	0.00
	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)
Education	0.06	−0.03	0.08	−0.02	0.04	0.10	0.01	0.07
	(0.15)	(0.10)	(0.15)	(0.10)	(0.15)	(0.10)	(0.16)	(0.11)
Religion	0.23	0.04	0.25	0.04	−0.65	−0.38	−0.34	−0.08
	(0.47)	(0.31)	(0.48)	(0.32)	(0.49)	(0.34)	(0.52)	(0.37)
Income	0.07	0.04	0.08	0.04	0.13	0.05	0.07	−0.03
	(0.14)	(0.09)	(0.15)	(0.09)	(0.14)	(0.10)	(0.14)	(0.10)
Pol. Interest	−0.05	−0.02	−0.02	0.01	0.01	−0.22	0.02	−0.22
	(0.11)	(0.07)	(0.12)	(0.07)	(0.13)	(0.08)	(0.13)	(0.09)
Log-Lik	−221.84		−212.36		−206.04		−181.6	
N	561		561		576		576	
2* Lik ratio			19				48.9	
P-Value			<0.01				<0.01	

Note: Table reports point estimates with standard errors in parentheses. Estimates are obtained by maximizing the likelihood numerically using Broyden—-Fletcher—Goldfarb—Shanno algorithm as implemented in R's 3.0.2 optim function.

options matter for rental voting.

As before, we operationalize preferences for other coalitions by the 0—10 rating respondents reported for each coalition. If alternative coalition options matter, i.e., the difference in preferences between the alternative coalitions (Rating CDU—SPD) (Rating *SPD—Greens*) is large, CDU supporter should be more likely to rent their vote to the FDP. The larger this difference, the more it matters to the voter in these elections who else might form the government if a CDU-FDP coalition fails to gain a majority of seats in parliament. Consequently, such voters should have a higher likelihood to rent their vote to the FDP than those voters for which the viable alternative options do not make a big difference. Take a voter, for instance, who dislikes the SPD-Greens coalition far more than the CDU-SPD coalition. This voter should have a higher likelihood to rent her vote to the FDP in order to secure the CDU-FDP coalition if alternative coalition options are driving the results rather than coalition signals.

The effect of how much alternative coalition options matter should be conditional on how much the CDU-FDP coalition is preferred in the first place. Alternative coalition options, i.e., the relative preferences for one of them, should drive rental voting if respondents care a great deal about the CDU-FDP coalition.

Thus, as an alternative explanation to coalition signals and the mechanism we prefer, the evaluation of alternative coalition options should matter independent of context, though, wether coalition signals are consistent or inconsistent with the rental-vote logic. Table 3 shows the results of four multinomial regression models, in which the direct effect of the CDU-FDP coalition rating is interacted with the difference in rating for a CDU-SPD and a SPD-Greens coalition. In both elections, at the state as well as the federal level, we should observe a negative interaction coefficient for the likelihood to cast a vote for the CDU and a positive effect to cast a vote for the FDP if the

alternative explanation were true. While we in fact observe the expected sign for the federal election, we do not find the expected sign using the state election sample. Moreover, all interaction effects are hardly distinguishable from zero. This leads us to conclude that the alternative explanation cannot sufficiently explain why there was no rental voting in the federal election in contrast to the state election.

5. Conclusion

The result of the 2013 German federal election took many political observers by surprise. The FDP had always been able to overcome the electoral threshold — supposedly with a little help from their friends, namely rental voters. Why did voters apparently refrain from casting rental votes in the German federal election 2013 while they have done so just a few months before in the State election in Lower Saxony? We have argued that strategic rental voting might be more linked to the electoral context than previously thought. We find evidence that the rental vote mechanism, indicated by an interaction of CDU-FDP coalition preferences and subjective expectations about the electoral prospects of the FDP, does only hold when the coalition signals during the campaign are consistent with the rental vote logic. Thus, the amount of strategic support a junior coalition partner might get when in danger of loosing representation does depend on a "friendly" environment in terms of coalition signals that help voters to coordinate.

The results of this study also facilitate scholars of voting behavior in multi-party systems to better understand the conditions under which strategic coalition voting occurs. Small parties may actually profit from strategic voting rather than getting strategically deserted. We made transparent that previous research on rental voting faced a selection problem. Rental voting was studied

previously only in situations in which coalition signals were consistent with the rental-vote logic — or at least not inconsistent with it, in the sense that the senior coalition partner did not consistently oppose appeals of the junior coalition partner to acquire rental votes by repeatedly discouraging its supporters from doing so. For the first time, we study rental voting also in a context that is inconsistent with the rental-vote logic. By selecting to study the same electorate in two very similar election contexts, we try to control many conceivable differences between both cases while leveraging that the coalition signals have been consistent with the rental-vote logic for the state election but inconsistent with it in the federal election. The evidence we find is consistent with our argument about the importance of a conducive environment in terms of coalition signals and inconsistent with several alternative explanations. Moreover, voters who report to not have paid attention to political news are supposedly less likely to have encountered inconsistent coalition signals. As expected, those voters are in fact more likely to behave in the way previous research expects them to behave, as if their were in a "friendly" environment.

Furthermore, given our research design we generate an additional observable implication to address a potentially powerful alternative explanation for our findings that is independent of coalition signals. The cost of not renting out their votes were higher for CDU supporters in the state election than in the federal election because the likely coalition options differed between state and federal election. However, we find that the perceived difference between the other likely coalition options does not drive our results. Nevertheless, we acknowledge that a different research design is needed to learn more about the conditions under which different viable coalition options might play a role for strategic coalition voting in general and for rental voting in particular.

Our take-away message is simple: Coalition signals can facilitate strategic coordination among voters. Theoretically, strategic voters face a coordination problem for which party signals can be an important cue. Consider a hypothetical scenario with two voters that have a clear party preference for the senior coalition partner, but would like see to it govern in a coalition with a specific junior partner. To ensure that the junior partner overcomes the electoral threshold and enters parliament, one of the two voters has to cast her vote for the junior partner to get the preferred coalition. But which of the two voters is going to rent out her vote? As both voters would prefer to vote for the senior partner, there are two possible equilibria in this coordination game: Either both voters rent out their vote to the junior partner, and thereby weaken their most preferred party, or none of the two does it and the coalition does not form. In such a situation, signals from the two parties, but especially from the senior party who is trading away votes, are important as they can potentially help coordinate the voter's behavior. This mechanism can lead to rental votes if the signals are consistent with it, as we have seen in the context of the Lower Saxony state election. However, if the context is inconsistent with the rental-vote logic, as it was in the German Federal election of 2013, we can only find evidence for rental voting among those respondents, who are most likely to not have encountered inconsistent coalition signals.

These considerations call for further research on the theoretical connection between party signals and electoral behavior. During electoral campaigns we observe that parties spend notable time to advertise or reject potential government coalitions, or even unite forces with other parties during campaigns. How do such signals affect the strategic calculus of voters? While coalition signals may help voters overcome coordination problems, such party signals can work in manifold ways. As such, they may enable learning processes about the likelihood particular coalitions will form after

the election or even prime coalition aspects in voter minds. Understanding how these signals actually work ties together research on coalition-targeted voting behavior with elite-driven processes such as campaign strategies. Understanding this electoral linkage between voters and political elites will help us to better understand voting behavior and coalition formation processes in multi-party elections.

Acknowledgments

Appendix

An Appendix including descriptive statistics and further robustness checks related to this article can be found at http://dx.doi.org/10.1016/j.electstud.2016.06.011.

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