# Balancing Coalition Outcomes via a Strategic Vote
# A Consideration Set Model Approach

Annika Fredén and Jacob Sohlberg, University of Gothenburg

**Abstract**

Studies find that citizens sometimes abandon their most preferred party in order to elect a coalition of parties. Still, we have little knowledge of the steps citizens take before ultimately casting such a coalition-oriented vote, sometimes referred to as "strategic". In this paper, we elaborate on the difference between two types of coalition-oriented strategic behavior: incentives to defect to a coalition party at risk of falling below an electoral threshold in order to elect a winning coalition ("insurance"), and incentives to balance the overall policy outcome of a coalition ("compensation"). Combining insights from the so-called consideration set model approach, which focuses on how voters narrow down a large number of parties to fewer alternatives, and strategic voting theory, we explicitly relate the voter's formation of consideration set to these strategic concerns. The hypotheses are that the insurance strategy is prevalent already when forming the consideration set, whereas compensation is more related to coalition policy outcomes and influential at the vote choice stage. A multilevel panel data analysis from the Swedish National Election Studies of 2014 supports our expectations.

**Introduction**

Studies of vote choice often emphasize the intuitive assumption that citizens vote for the party they prefer the most. While this depiction is valid, a sizable part of the electorate also reflects on what governing coalitions may form after the election and how the parties fare in opinion polls. Depending on these considerations, individuals sometimes deviate from their most preferred party and instead cast a "strategic" vote (Downs, 1957; Cox, 1997; Indridason, 2011; Fredén, 2016). Two types of strategic behavior are of particular importance in parliamentary systems with coalitions. Under coalition governments, smaller parties often play vital roles as government partners to larger ones. If a smaller potential coalition party is at the risk of not reaching the electoral threshold, supporters of a larger party could choose to vote for it in order to secure its position in parliament. This behavior is known as "insurance"-voting (Cox, 1997; Fredén, 2014). Another type of coalition-oriented strategic behavior is to affect the coalition policy outcome (Duch et al., 2010, Indridason, 2011). For example, the presence of a smaller extremist party in a coalition is likely to affect the government's policy proposals in a leftist or rightist direction. Knowing this, voters may vote for another party than the one they prefer, hoping that the overall policy outcomes of the coalition will reflect their policy positions better. In the literature this strategic behavior is referred to as "compensational" (Kedar, 2005).

Our study examines insurance and compensational strategic behavior from the perspective of the consideration set model (CSM) (for an introduction to the consideration set approach, see Oscarsson and Rosema, 2016). This perspective separates electoral behavior into the consideration stage and the vote choice stage. Whereas previous studies on strategic voting have almost exclusively focused on the vote choice stage, we propose that the insurance-mechanism may play an important role already when parties are added to or removed from the consideration set. A coalition supporter could include a smaller party in the set, await the polling figures and then decide whether the party is in need of a vote. On the other hand, compensational strategic behavior should be less related to the formation of consideration set, since it concerns the party's expected influence within a group of parties. Therefore it should be related to the final choice between equally preferred coalition parties. Using multilevel panel data from the 2014 Swedish National Election Studies, we find support for the hypotheses that insurance strategies are present already when the consideration set is being

formed, whereas compensational behavior is associated with the choice stage and joint coalition policy outcomes.

The paper proceeds as follows. First, we discuss two types of strategic voting that are associated with coalition government systems: incentives to elect a smaller party at risk of not reaching parliamentary representation ("insurance voting"), and voting with regard to combination of coalition party policies ("compensational voting"). We introduce the consideration set model approach as a tool to examine when these types of strategies are relevant. In the conclusion, we discuss the relationship between consideration set formation and coalition-oriented strategic voting further, and propose some ideas for future research.

## Coalition-oriented strategic considerations and consideration sets

### Strategic Voting and Coalitions

"Strategic" voting is the act of casting a vote for some other party than one's most preferred one with the intention to affect the outcome of the election, under consideration of others' behavior (see, for example, Downs, 1957; Cox, 1997; Fredén, 2016a). Since a majority of democratic countries are multi-party systems, different strategic concerns are highly relevant for many voters. The most investigated behavior is the tendency to cast a vote for a party that is more viable than one's preference, to make sure that the vote counts in the distribution of seats (see, for example, Blais et al., 2001). In proportional systems, where the parties tend to form coalitions, smaller parties may also be important players in government which affects strategic behavior (Gschwend, 2007; Hobolt and Karp, 2010). Below we look deeper into two mechanisms of strategic voting that in particular concerns smaller parties: "insurance" to protect a smaller party from falling below an electoral threshold, and "compensation" to affect the overall policy outcomes of a coalition.

### The Insurance Strategy
When there is a close election between opposing coalitions and a number of parties are needed to form a plurality government, all parties of the potential coalition need to reach the electoral threshold level in order for the coalition to win. In this situation, where a smaller coalition member is at risk of not making it to parliament, supporters of larger parties have a good reason for deviating from their preferred choice and instead support the smaller party.

The tendency to cast a vote for a smaller coalition party in order to secure its position in parliament is often referred to as *insurance voting* because its aim is to protect the small party from the threshold threat (Cox, 1997). Previous studies find that large party supporters cast strategic votes for smaller members of a coalition in various proportional systems with thresholds, such as Germany, Austria and Sweden (Gschwend, 2007, Meffert and Gschwend, 2010, Fredén, 2014). Some studies find that polling information affect the tendency to cast an insurance vote (Meffert and Gschwend, 2011; Huber and Faas, 2014; Fredén, 2016b). A study from the German system also indicates that clear elite signals about party cooperation increase the levels of insurance voting (Gschwend et al., 2016). On the other hand, none of these studies have investigated whether insurance strategies are prevalent already when the voter makes up his or her mind about which parties could be worth voting for, i.e. that insurance as a pre-election strategy.

*Compensation*

Another reason to cast a strategic vote under the presence of coalitions is more explicitly related to the joint policies of different parties. The policy outcomes of a coalition should vary depending on which parties are parts of it, and how big they are in relation to one another. For example, larger parties are generally more influential in government than smaller ones (Gamson, 1961). Taking this into account, voters sometimes choose a party that is smaller and holds more extreme positions than they would normally prefer in order to affect policy outcomes. Similar strategies are referred to as *compensational voting* (Kedar, 2005).[1] Moreover, research shows that post-election bargaining between parties is affected by current party evaluations of the electorate (Baron and Ferejohn, 1989) and that parties with a decreasing polling trend since the last election have lower chances of influencing the policy outcomes (Mattilla and Raunio, 2002; Bäck, 2002). Relatedly, Fredén (2016c) shows that under the presence of explicit pre-electoral coalitions, voters sometimes cast a vote for a party with a falling public support trend. One reason for this is that the voter wants to increase the chance of that party becoming influential in postelection negotiations.

The idea of compensational strategy can be illustrated with an example. Assume that there are two coalition parties A and B, and, on an ideological left-right dimension, the voter has a position between these parties (Figure 1).

---

[1] Or, inversely, a more centrist party if the intention is to counter-balance the influence of the extremist party.

Policy

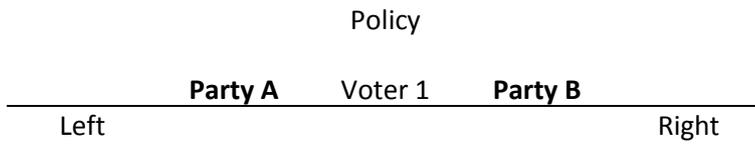| | **Party A** | Voter 1 | **Party B** | |
|---|---|---|---|---|
| Left | | | | Right |

**Figure 1. Voter 1's ideal position**

Party A has lost support since the previous election, whereas B's support has remained stable. If the election results would reflect the current level of support for Party A and B, the post-election coalition policy outcomes are likely to move toward B's position to the right, which is a potential policy-shift (Figure 2).
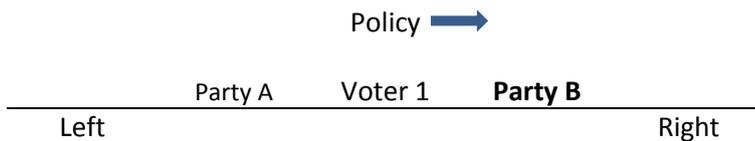
Policy ➡

| | Party A | Voter 1 | **Party B** | |
|---|---|---|---|---|
| Left | | | | Right |

**Figure 2. Policy-shift scenario**

Since the policy-shift scenario moves the joint policy outcomes away from the voter's ideal position, the voter may want to strengthen A's position in the forthcoming coalition negotiations. A viable strategy for this is to cast a "compensational" vote for A, in order to push policies back toward the ideal position (Figure 3):
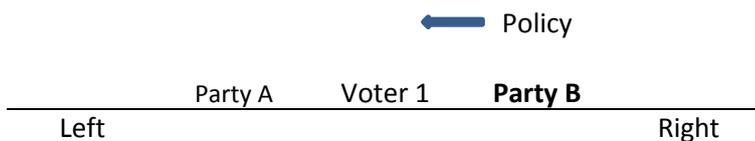
⬅ Policy

| | Party A | Voter 1 | **Party B** | |
|---|---|---|---|---|
| Left | | | | Right |

**Figure 3. Compensational outcome**

In this example, we assume that the voter evaluates parties on a political left-right scale. So far, little is known about the relationship between these types of coalition-oriented strategic considerations, the inclusion of parties in voters' consideration set, and final vote choice. This is a perspective to which we turn next.


*The Consideration Set Model Approach and Strategic Behavior*


 In studies on voting behavior, the consideration set is the number of parties that citizens choose between before making their final vote choice. The rationale behind the model is that citizens in multiparty or multicandidate elections first narrow down the number of alternatives, and then choose between the alternatives of this smaller set (Oscarsson et al., 1997; Paap et al., 2005; Steenbergen and Hangartner, 2008; Wilson, 2008; Rosema and de Vries, 2011; Oscarsson and Rosema, forthcoming). The consideration set approach is a useful framework for examining coalition-oriented strategic voting because it formalizes the implicit assumption that citizens are not choosing between all parties when they cast their votes. This enables us to study the character and timing of different strategic behavior more in-depth. Specifically, we propose that voters think about electing a winning coalition government when they are forming a consideration set: adding a smaller party to the consideration set is one way of getting prepared if public opinion polls would suggest that the smaller party is at the cusp of parliamentary representation. This suggests that insurance strategies may be at play at a relatively early stage of the vote decision process. On the other hand, we suggest that compensational strategies are more related to coalition parties' sizes and positions in relation to each other. Therefore, this type of behavior should be less about the process of reducing the number of alternatives, and more about finally choosing between equally preferred parties.

Only a couple of studies have, to our knowledge, discussed the relationship between consideration sets and strategic concerns. Applying a two-stage consideration set model of vote choice on the PR system of Sweden, Boije et al. (2015) find a significant degree of voters who chose a small centre-right coalition party even though it was not their preferred party. Wilson (2008) concludes that the perception of organizational strength of parties at the sub-

national level influences whether or not it is included in the consideration set. While Wilson touches upon the importance of studying the intersection of consideration set and strategic voting, this study does not focus on coalition-oriented strategic voting and potential considerations concerning coalition outcomes are not explored.

*Hypotheses*

The starting-point for our study is that voters take coalition outcomes into consideration when evaluating different party alternatives, and finally choosing one of these. Our first hypothesis is about the relationship between forming a consideration set and the insurance strategic mechanism. In systems of coalitions there are reasons to include smaller parties in the consideration set, since smaller parties are often needed as coalition partners to larger ones. The argument is that coalition supporters sometimes add one or two smaller parties to their consideration sets because of such coalition-strategic considerations. This leads to the following hypothesis of "insurance"-strategies:

- Insurance hypothesis: *Voters are prone to include a smaller coalition party in their consideration set as a second alternative*

Another type of coalition-oriented strategy is less related to the formation of consideration set, and more to the expected balance between coalition parties. In this case, the voter needs to compare the expected relative influence of the parties in their preferred coalition. Parties that have lost support are less likely to gain influence in the government formation process (Mattila and Raunio, 2002). If the voter is in a position between two potential coalition parties, and one of them has lost support whereas the other has gained support, there is reason to favor the party with the falling trend, in order to improve its position in the negotiations after the election. This type of fine-tuned balancing should occur when choosing between equally preferred parties.

- Compensation hypothesis: *Voters use polling trends in order to choose between equally preferred coalition parties*

In sum, our argument is that insurance considerations may be vital when the voter shapes his or her consideration set, whereas compensational strategies play a more salient role in the vote

choice between equally preferred coalition parties. Insurance strategies and voting is thus more closely associated with the consideration set formation, whereas compensation related more closely to coalition policy outcomes.

**Case and Data**

*Background on Swedish Politics*

We test these ideas in a Swedish setting, a context in which the previously dominant Social Democratic Party's string of minority governments have, over the last decade, been substituted by coalition governments. Thus coalitions are a rather recent phenomenon and citizens may still think in terms of voting for parties, not for coalitions. Still, the presence of pre-electoral alliances, mainly on the right side of the political spectrum, since 2004 may have made the electorate more prone to think of parties as part of larger coalitions. Even before the launch of the center-right coalition in 2004, the center-right parties collaborated more or less loosely, and the smaller Left Party has previously played the role as a government support party to the Social Democrats (Bale and Bergman, 2006). In the 2014 election that we study, there was a clear message from the incumbent center-right (including the release of a common election manifesto), while the Social Democrats (the largest party on the left), primarily favored a two party left-wing government in conjunction with the Green party (Aylott and Bolin, 2015). However, unlike before the general election in 2010, it did not lead a formal "red-green" coalition. Before the election, eight parties were represented in the Swedish parliament: three to the left of center, and five to the right. The right-wing parties include the Sweden Democrats, a populist party that favored strong restrictions on immigration. Moreover, an additional option to the left emerged, the Feminist Initiative, which had recently gained a seat in the European parliament and aimed for representation in the national parliament.

*Data and Sample Information*

In order to conduct the test of the relationship between coalition considerations and consideration set, we use the two-wave Swedish National Election Study which is based on a representative sample of citizens. The pre-election wave consists of face to face and telephone interviews, including a broad set of items concerning evaluations of parties, issues and

candidates. This was complemented with a post-election survey in which the voter indicated his or her final vote choice.[2] Having panel data of pre-electoral coalition preferences and consideration sets, in conjunction with the choice that was finally made, is a step forward in relation to previous studies of coalition-oriented voting, which often relies solely on vote intention (see for example Duch et al., 2010; Gschwend et al., 2015).

*Conditional Logit*

Examining the impact of coalition considerations in relation to party preferences, we need a statistical model that includes voter distances to all main parties. The conditional logit model is a straight-forward alternative, since it is possible to measure the individual voter's relationship to a number of alternatives. In contrast to the more commonly used multinomial logit, conditional logit does not require a specific party as a reference category (Long, 1997). The data is structured so that each individual gains different values for each alternative, so called "long" format. Thus, the coefficients are associated with the impact of distances or values (for example position on left-right scale) on party choice in general. We argue that this model enables broader generalizations of how consideration sets in conjunction with coalition preferences affect party choice under PR than multinomial models do.

*Measurements*

The starting-point for the model of vote choice is the voter's self-evaluated position in the party system and evaluations of party alternatives. The conditional logit model enables us to include a number of different items to operationalize the voter's position in relation to the parties. The first factor is the voter's position on the left-right scale in relation to the party's position. The shorter the distance is, the closer the voter is to the to the party's policy position. In addition, we use an 11-point sympathy score evaluation to measure the voter's overall rating of the party. Furthermore, we use these scores to distinguish the party the voter has as his or her first preference, which is the party or parties that the individual scores highest, from the rest. There is also an indicator of whether the voter is a strong adherent of a particular party, and which party this is. We also include the voter's evaluations the parties' leaders on an 11-point sympathy scale. Furthermore, party size is expected to affect the vote

---

[2] The response rate for the 2014 Swedish National Election Study interviews was 56 percent, whereas the response rate for the post-election postal questionnaire was 75 percent. Young respondents tended to drop out to a higher extent than older participants (Oleskog Tryggvason and Hedberg, 2015). Therefore older respondents should be overrepresented in our analyses, which, however, should not affect our conclusions about the presence of strategies.

decisio. In general, voters tend to move towards larger parties (Van der Eijk and Franklin, 2009:105; Fredén and Oscarsson, 2015). Larger parties may have an advantage because of the bandwagon effect, which is the tendency for more popular attitudes and beliefs to spread more quickly (Simon, 1954). As an indicator of party size we use vote share in the previous general election (2010).

The consideration set measurement consists of three consecutive items in the National Election Study. The first item is the voter's vote intention, which we code as the voter's first alternative in the consideration set. The second item indicates whether the voter has other potential alternatives under consideration. Finally, the third item reports whether the voter has additional parties as potential alternatives. Using these three items, we obtain the voter's complete consideration set, and also have the voter's ordered consideration set.

The voter's coalition-centered considerations, in turn, consist of an open-ended question in which the voter indicated which party or parties he or she would like to include in government. In the studied election, voters may have had different views of which coalitions were viable, since the signals from the left were ambiguous, whereas there were also two new parties that had never belonged to formal coalitions. A majority of the respondents mentioned the more established coalition alternatives, nevertheless, the voters' interpretation and evaluation of potential coalitions varied a lot, why we argue that this measurement is suitable for this type of individual-level study.[3]

We also include a campaign-specific measurement of support level in the models to grasp the impact of polling trends. This measurement consists of the established polling institute Sifo's polls from early August and early September 2014, taking the average of these polls to control for some of the fluctuations in the campaign. We have chosen Sifo because it is one of the most renowned polling institutes, having a long tradition of conducting accurate polls. The Sifo polls are published in *Svenska Dagbladet* and *Göteborgs-Posten*, two of the major Swedish newspapers, and further disseminated in other media outlets. Therefore, the polling by Sifo is likely to be seen as a credible source of information by a large group of voters.[4]

---

[3] 19 percent of the respondents stated that the four center-right government parties made up their most preferred coalition. 36 percent said that they preferred a combination of Greens-Left party-Social Democrats. The remaining share of voters mentioned other combinations of parties.

[4] As a robustness check, we conducted the analysis using polls from various polling institutes. These analyses yield the same conclusion as the analyses with the Sifo data.

To conduct tests of the specific "insurance"-strategy and "compensational"-voting, we compute two interaction terms. The insurance-interaction is between coalition considerations and campaign opinion poll levels (see above), in order to measure whether voters were more likely to include coalition parties that are at risk of not reaching parliamentary representation. All nine parties that are included in the analysis had polling levels that were above or relatively close to the electoral threshold. What we potentially do not take into account is whether the voter considered a vote for a smaller party as "wasted". However, if the voter placed the party in his or her most preferred government coalition, a vote for the party would be less likely to be seen as wasted. Moreover, using vote share in the previous election simultaneously in the model should control for the major part of such "wasted vote" dynamics.

The compensation-term, in turn, is an interaction between a party that is included in the voter's most preferred coalition and that party's public support trend since the previous election. The trend measurement is the difference between opinion poll levels in the campaign (see above) and the vote share in the previous election. We argue that this type of long term trend is the most relevant measure, since vote share in the previous election is the "status quo" that the voter could always refer to. This trend interaction takes a positive value if the current support levels are higher than the previous election results, and negative value if the polls show lower support levels than the result in the previous election.

As control variables, we also include the voter's perception of how parties handles some of the issues that were salient in the campaign and are possibly associated with vote choice: immigration, gender equality, European integration and the environment. These variables are based on free text answers in which the respondent could indicate which party or parties were good or bad at handling a special issue. The responses are coded into trichotomy variables, +1 if the voter indicated that the party has good policies in the specified issue, and -1 if the voter indicated that the party had bad policies in the issue. If the voter selected neither good nor bad, it is 0. Similar trichotomy variables have been successfully applied to previous studies of consideration sets and choice (Steenbergen and Hangartner, 2008).

Below is an example which illustrates a data structure in long format, which we use for the conditional logit models. In the example a voter has evaluated four party alternatives, and

finally chosen one of them. The fictive data includes a voter's sympathy scores for the four alternatives ("sympathy"), whether the party is included in the voter's most preferred coalition, whether the party is in the voter's consideration set; its polling size in the campaign, and final vote choice: 1 if the party was chosen, 0 otherwise (Table 1).

**Table 1: Conditional logit data structure (fictive example)**

| Voter | Party | Sympathy | Coalition | Consideration | Polling size | Vote choice |
|-------|-------|----------|-----------|---------------|--------------|-------------|
| 1 | 1 | 8 | 1 | 1 | 4 | 1 |
| 1 | 2 | 8 | 1 | 1 | 25 | 0 |
| 1 | 3 | 6 | 1 | 0 | 10 | 0 |
| 1 | 4 | 2 | 0 | 0 | 11 | 0 |

In this example, the voter gives the highest scores to Party 1 and Party 2. These parties are also members of the voter's most preferred coalition in conjunction with Party 3. The voter considers only Party 1 and Party 2. Party 1 has low support levels in the campaign, and is also the voter's final vote choice. This type of data forms the basis for of the multivariate analyses.[5]

**Descriptive Results**

To explore the prevalence of consideration sets, coalition considerations and strategic choice, we first present some descriptive data. The first step is to look at the presence of potentially strategic votes: the share of voters who did not vote for their most preferred party. We find that 12 percent of the respondents cast a vote for a party that they did not give the highest sympathy score. The share of voters who chose another party than their preferred party or parties does not stand out as high in comparison with other recently held elections in

---

[5]An extension of the conditional logit model is the mixed logit model, which relaxes the irrelevant of independent alternatives assumption, IIA (McFadden, 1974). This assumption implies that the relative chance of electing one party over the other remains the same if another party is added to, or excluded from, the set of potential alternatives. This is a rather unlikely assumption in systems where parties shares characteristics, even though correctly specified and nuanced models should make estimations of the choice of one party over the other more distinct. Moreover, mixed logit includes a random component which allows for relationships to vary heterogeneously between voters (Glasgow, 2001). It is, for example, possible that politically knowledgeable voters, in particular, take into account insurance strategies or balancing considerations. As robustness checks we have therefore run mixed logit models, see footnote 9 .

Sweden. In the 2010 general election the share of such potentially strategic votes was 18 percent, using the same operationalization and data from the Swedish National Election Study (see Fredén, 2014). Still, the presence of votes for non-preferred alternatives is substantial and indicates that some voters chose a party that they gave a lower score than their most preferred one(s).

*The Proportions of Considered Parties and Preferred Coalition Parties*

An assumption behind the consideration set approach is that many voters neither consider only one party nor consider all parties before casting their vote. Table 2 (column 1) shows that 43.9 percent only consider voting for one party, but it also shows that a majority (56.1 percent) of citizens consider more than one. The consideration set approach is thus relevant for a majority of voters. Furthermore, Table 2 demonstrates that very few individuals consider more than three parties. The average number of considered parties is 1.8, which is similar to findings from previous studies of the Swedish electorate (Oskarson et al., 2015). As for preferences on coalition parties, voting-age Swedes have on average 3.2 parties in their mot preferred governing coalition. This is substantially larger than the average of 1.8 parties in their consideration set.

**Table 2. Proportions of considered parties and preferred coalition parties**

|  | Consideration set | Preferred coalition |
|---|---|---|
| 1 | 43.9 | 7.7 |
| 2 | 35.7 | 18.3 |
| 3 | 19.7 | 33.0 |
| 4 | 0.7 | 31.4 |
| 5 | 0.1 | 8.4 |
| 6 | - | 0.7 |
| 7 | - | 0.3 |
| 8 | - | 0.3 |
| Total | 100 | 100 |
| Mean | 1.8 | 3.2 |
| N | 850 | 754 |

Note: Only respondents with one or more parties in their consideration set and preferred coalition, respectively, are included in the calculation.

This would imply that the mechanisms concerning inclusion in consideration set, and consideration of coalitions, are not identical.

**Multivariate findings**

*Testing the Impact of Coalition Consideration on Consideration Set and Vote Choice*

In the following multivariate models we test the impact of the insurance- and compensation-hypotheses on consideration set and vote choice. First, we examine the relationship between the strategic factors and the tendency to include the party in the consideration set. We run separate analyses on first and second party alternative in the set in order to explore if the strategic factors impact these differently.[6] Finally, we combine the two steps, including the voter's complete consideration set of parties in the vote choice model.

The findings of the multivariate analyses are presented in Table 3 below. Model 1 examines the effect of factors related to party preference on having a party as first or second alternative in the consideration set.[7] Model 2 adds the impact of coalition preference and opinion poll levels as explanatory factors. Model 3 includes tests of the insurance and compensational hypotheses on having a party in the consideration set. Model 4 tests the explanatory power of both these strategic mechanisms on vote choice, under control for the voter's complete consideration set. By including the consideration set in the model, the impact of different coalition-oriented considerations at the choice stage can be disentangled. These are more related to coalition policy outcomes, than to formation of consideration set.

---

[6] Only voters with a valid answer on the item, i.e. voters with more than one party in the consideration set, are included in the analysis

[7] We also had data on the voters' third alternative. The results from the analyses between party preference, strategic factors and third party alternatives point in the same direction as the analyses of second alternative as outcome variable. We do not present these results since the number of respondents having three or more parties in their consideration set is considerably lower.

**Table 3: Strategic considerations, consideration set and final vote choice (conditional logit)**

|  | Model 1 | | Model 2 | | Model 3 | | Model 4 |
|---|---|---|---|---|---|---|---|
|  | | | Consideration Set Alternative | | | | Vote |
| **Independents** | 1st | 2nd | 1st | 2nd | 1st | 2nd |  |
| Left-right distance (0-10) | -0.22* (0.06) | -0.11* (0.04) | -0.18* (0.06) | -0.06 (0.04) | -0.19* (0.06) | -0.08 (0.04) | -0.00 (0.05) |
| Party identification (0-1) | +2.10* (0.43) | -1.85* (0.46) | +2.13* (0.42) | -1.86* (0.46) | +2.13* (0.43) | -1.82* (0.46) | +1.00* (0.31) |
| Highest sympathy (0-1) | +1.43* (0.35) | -1.57* (0.20) | +1.57* (0.35) | -1.54* (0.20) | +1.57* (0.35) | -1.54* (0.21) | +0.47 (0.25) |
| Sympathy score (-5–+5) | +1.04* (0.22) | +1.03* (0.10) | +0.80* (0.22) | +0.89* (0.11) | +0.81* (0.22) | +0.89* (0.11) | +0.57* (0.15) |
| Leader evaluation (-5–+5) | +0.16* (0.07) | +0.25* (0.05) | +0.15* (0.07) | +0.25* (0.06) | +0.14* (0.07) | +0.25* (0.06) | +0.15* (0.06) |
| Vote share (0.4-30.7) | +0.01 (0.01) | -0.00 (0.01) | -0.02 (0.03) | -0.06* (0.03) | -0.09 (0.08) | -0.12* (0.05) | -0.13 (0.07) |
| Party size (2.2–28.9) | | | +0.03 (0.04) | +0.07 (0.03) | +0.10 (0.10) | +0.18* (0.06) | +0.17* (0.08) |
| **Coalition preference (0–1)** | | | **+1.79*** **(0.38)** | **+0.85*** **(0.21)** | **+1.85*** **(0.52)** | **+1.70*** **(0.35)** | **+1.14*** **(0.45)** |
| **Coalition preference\* party size (0–28.9) (H1/INSURANCE)** | | | | | +0.01 (0.03) | **-0.07*** **(0.02)** | -0.05 (0.03) |
| **Coalition preference\* support trend (-7.1–+4.0) (H2/COMPENSATION)** | | | | | -0.08 (0.09) | -0.09 (0.06) | **-0.16*** **(0.08)** |
| **Consideration set (0-1)** | | | | | | | **+2.10*** **(0.23)** |
| Observations | 5255 | 2939 | 5255 | 2939 | 5255 | 2939 | 5226 |
| Log likelihood | -299.28 | -456.70 | - 283.61 | - 444.43 | -283.12 | -439.27 | -348.65 |

Dependent variables: Consideration Set Alternative: 1st alternative=pre-election vote intention; 2nd alternative=party mentioned in the pre-election survey after vote intention as a potential party alternative (only voters with valid answers on this item are included in the analysis.)
Vote= Vote choice in the 2014 general election, as reported in the post-election survey.
Estimations performed in Stata 14.0
*Indicates significance at p<0.05

The analyses give support to the idea that coalition-oriented strategic considerations have an impact on consideration set and vote choice. Following our insurance-hypothesis, we expected that large party supporters would add a smaller coalition party to their potential set of alternatives. This prediction is supported because the interaction between polling levels and coalition preferences has a significant impact in including a party in the consideration set as a second alternative. The coefficient takes a negative value since lower polling levels (polling levels closer to the electoral threshold) are associated with a higher likelihood of including the coalition party as a second alternative in the consideration set.

Second, based on the compensation hypothesis, we expected that voters would use current polling levels in relation to previous election results in order to balance the impact between parties of their preferred coalition. Looking at Model 4, in which vote choice is the outcome variable, the relationship is in the expected direction (the coefficients take a negative sign since a negative trend since the previous election is associated with higher likelihood of choosing the party), and is statistically significant. Given that a voter has some parties under consideration, the tendency to vote for a party in one's preferred coalition increases if it has a falling support trend since the previous election. As expected, compensation is related to balancing between equally preferred coalition parties at the vote choice stage, rather than to the formation of consideration set.[8]

In order to compute the magnitude of the effects, we use the coefficients and values from the multivariate models, holding the interaction variables related to the hypotheses at their extreme values and the other variables at their original values (compare Risa Hole, 2013). The first test computes the difference in the predicted probability of including a preferred coalition party in the consideration set as a second alternative, depending on whether the party is the biggest party or the smallest party in the coalition. We test the difference when the interaction

---

[8] The impact of insurance strategies on consideration set alternative 2 (Model 3), and compensation at the vote stage (Model 4), remains even after controlling for issue positions.

variable of party size and coalition preference takes it lowest value (corresponding with the smallest party in one's preferred coalition) and highest value (corresponding with the biggest party of one's preferred coalition). Using the coefficients from Model 3, the probability of including the smallest party in the consideration set as a second alternative is nearly 10 percentage points higher compared with the biggest party (Figure 4).
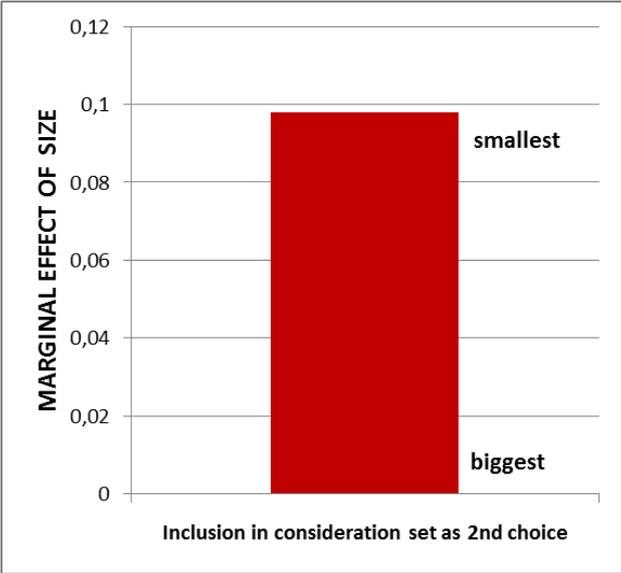


Figure 4
**Difference in Probability of Including Coalition Party as a Second Alternative in Consideration Set** (marginal effect)

In a similar manner, using data from Model 4, we compare the probability of voting for a preferred coalition party with the most negative trend with voting for a coalition party with the most positive trend. The probability of voting for a preferred coalition party with the most negative trend increases 6 percentage points compared with voting for a similar party with the most positive trend (Figure 5).
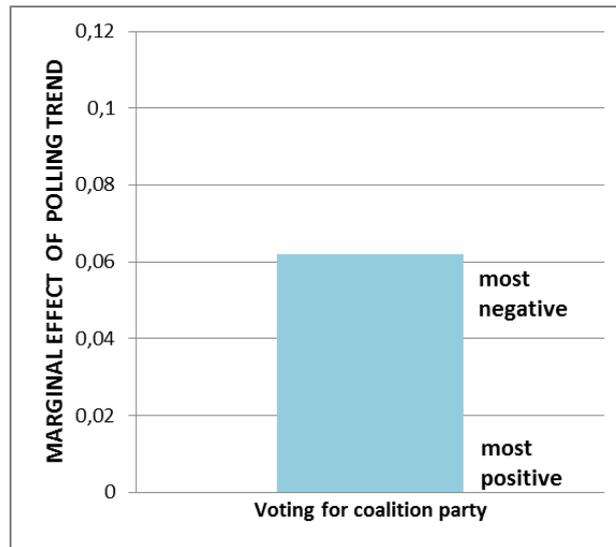
Figure 5
**Difference in Probability of Voting for Preferred Coalition Party Depending on Polling Trends**
(marginal effect)

Thus, in the studied election, the impact of both kinds of strategies is rather small, but significant.

Overall, we found support for the idea that coalition considerations are associated with including parties in the consideration set, and that compensation is related to the choice between equally preferred coalition parties.[9] What we cannot conclude from these analyses is whether the impact of insurance strategies is more salient at the consideration stage or at the choice stage. Some studies suggest that when the parties send out clear coalition signals about cooperation, insurance voting is more likely to occur (see, for example, Fredén, 2014 and Gschwend et al., 2016). In the studied election, the coalition signals from the parties were more ambiguous. This is a potential reason why the insurance strategy is more strongly related to including a party in the consideration set than to final vote choice.

---

[9] As a robustness check, mixed logit models were run that relaxes the IIA assumption (Mc Fadden, 1974) and includes a random component (Glasgow, 2001). The results from these models point in the same direction as the conditional logit models. In addition, the mixed logit models indicate that the relationship between coalition balancing considerations and vote choice is unevenly spread over the electorate, indicated by a significant random effect. Moreover, a study using data over a longer period of time, and a measurement of coalition signals based on party election manifestos, are in line with the findings that voters use polling trends in order to compensate coalition policy outcomes (Fredén, 2016c) .

**Discussion**

We found evidence from a party-centered PR system that coalition-oriented strategic concerns affect the voters' political choices at different stages of the vote decision making process. Factors related to electing a winning coalition matter when voters are reducing a large number of party alternatives to a smaller consideration set. We found that the insurance-strategy, which concerns large party supporters' tendency to defect to a smaller coalition member, is closely related to including parties in the consideration set. Our interpretation is that voters contemplate electoral rules and use expectations about post-election party coalitions when weighing potential alternatives for their vote choice. We also found support for the idea that voters cast compensational strategic votes related to coalition parties' relative strength and expectations about their joint policies. Such considerations are less related with the consideration set, and more associated with fine-tuned adjustment between equally preferred coalition parties.

It is fruitful to combine the consideration set approach and coalition-oriented strategic voting perspective for a number of reasons. First, the finding that voters use coalition parties' trends since the previous election in order to balance coalition outcomes is an additional reason why smaller parties may gain support the last few weeks of the election campaign (see Walther, 2015). By including the consideration set in the vote choice model, we are able to disentangle how coalition consideration impacts the final choice stage. Second, we have found that insurance strategy has an impact when the consideration set is being formed, which adds knowledge to the strategic voting literature which has generally focused on the vote choice stage. Third, the findings show the importance of having respondents rank the parties in their consideration set instead of simply reporting them unordered. The results show that insurance strategy is closely related to having a party as a second alternative. Research on strategic voting has previously touched upon the importance of first and second hand choices (Blais and Nadeau, 1996), and it is important that consideration set research also takes this to heart.

Since we found support for our hypotheses in Sweden, it is likely that they would also be supported in similar systems in which there are substantive electoral thresholds, and smaller parties are coalition parties to bigger parties, such as Germany. Compensation between coalition parties is relevant for all systems that have coalition governments. In Germany, for

example, a voter who prefers a certain balance between the Christian Democrats and the Liberals in government could use polling trends in order to decide which of the parties to vote for. Still, the generalizability of compensational and insurance mechanisms should be further investigated with cross-national data, taking advantage of variation between systems in the levels of thresholds and mechanisms for selecting governments. Alternatively, our findings could be studied with experiments where participants are given fictional electoral situations.

Since our study is one of the first that use the consideration model approach for examining strategic voting, we did not explore how individual level factors may further moderate our effects at the different stages of the election campaign. It is possible that they are conditioned by individual-level factors, such as political awareness. Potentially, the weighing and balancing between coalition parties depends on individuals' knowledge about parties' cooperation patterns and policies. Moreover, voters who consider parties crossing established blocs may employ different strategies than those who are convinced supporters of a well-defined government alternative. These types of interactions could also depend on the electoral stage that is studied. This is a task for future research to look deeper into.

**References**

Abrahamson, Paul R., John H. Aldrich, André Blais, Matthew Diamond, Abraham Diskin, Indridi H. Indridason, Daniel Lee and Renan Levine. 2010. Comparing Strategic Voting under FPTP and PR. *Comparative Political Studies* 43(1), 61–90.

Armstrong, David and Raymond Duch. 2010. Why Can Voters Anticipate Post-election Coalition Formation Likelihoods? *Electoral Studies* 29(3), 308–315.

Aylott, Nicholas and Niklas Bolin. 2015. Polarising Pluralism: The Swedish Parliamentary Election of September 2014. *West European Politics* 38(3), 730–740.

Bale Tim and Torbjörn Bergman. Captives No Longer, but Servants Still? Contract Parliamentarism and the New Minority Governance in Sweden and New Zealand. *Government and Opposition* 41(3), 422–449.

Baron, David P. and John A. Ferejohn. 1989. Bargaining in Legislatures. *American Political Science Review* 83(4), 1181–1206.

Bengtsson, Åsa, Kasper M. Hansen, Olafur Hardarson, Hanne Marthe Narud and Henrik Oscarsson. 2014. *The Nordic Voter. Myths of Exceptionalism*. Colchester: ECPR Press.

Blais, André, John Aldrich, Indridi Indridason, and Renan Levine. 2006. Do voters vote for government coalitions? Testing Downs' Pessimistic Conclusion. *Party Politics* 12(6), 691–705.

Blais, André, Richard Nadeau, Elisabeth Gidengil, and Neil Nevitte. 2001. Measuring strategic voting in multiparty plurality elections. *Electoral Studies* 20(3), 343–352.

Blais, A. & Nadeau, R. 1996. Measuring strategic voting: A two-step procedure. Electoral Studies, 15(1), pp. 39–52.

Boije, E., Henrik Oscarsson & Maria Oskarson. 2015. Finding the tie-breakers: The formation of consideration set and final party choice. Report 2015:04, Swedish National Election Studies Program

Bäck, Hanna, Marc Debus & Patrick Dumont. 2011. Who Gets What in Coalition Governments? Predictors of Portfolio Allocation in Parliamentary Democracies. *European Journal of Political Research* 50:441–478.

Bäck, Hanna. 2002. What Does it Take to Obtain Well-Functioning Electoral Democracy? [Vad krävs för en fungerande valdemokrati?], pp. 66–82 in (2002) M. Gilljam and J. Hermansson (eds.) Mechanisms of Democracy [Demokratins mekanismer]. Malmö: Liber.

Cox, Gary. 1997. *Making Votes Count. Strategic Coordination in the World's Electoral Systems.* Cambridge: Cambridge University Press.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper and Row.

Duch, Raymond M., Jeff May and David A. Armstrong. 2010. Coalition-Directed Voting in Multiparty Democracies. *American Political Science Review* 10(4), 698–719.

Fredén, Annika. 2016a. *Strategic Voting under Coalition Governments*. Doctoral dissertation, Lund University. Lund: Media-Tryck

Fredén, Annika. 2016b. Opinion Polls, Coalition Signals and Strategic Voting: Evidence from a Survey Experiment. (Unpublished manuscript)

Fredén, Annika. 2016c. Pre-Electoral Coalitions and Compensational Voting. (Unpublished manuscript)

Fredén, Annika and Henrik Oscarsson. 2015. Reasons to Vote Strategically in General Elections. [Skäl att rösta strategiskt i riksdagsval], pp. 377–386 in (2015) A. Bergström, B. Johansson, H. Oscarsson and M. Oskarson (eds.) *Fragment*. Gothenburg University: The SOM Institute.

Fredén, Annika. 2014. Threshold Insurance Voting in PR systems. A Study of Voters' Strategic Behavior in the 2010 Swedish General Election. *Journal of Elections, Public Opinion and Parties* 24(4), 473–492.

Gamson, William. 1961. A Theory of Coalition Formation. *American Sociological Review* 26(3), 373–382.

Glasgow, Garrett. 2001. Mixed Logit Models for Multiparty Elections. *Political Analysis* 9(2), 116–136.

Gschwend, Thomas, Michael Meffert, and Lukas Stötzer. 2015. Weighting Parties and Coalitions: How Coalition Signals Influence Voting Behaviour. (Unpublished manuscript)

Gschwend, Thomas, Lukas Stötzer, and Steffen Zittlau. 2016. What Drives Rental Votes? How Coalition Signals Facilitate Strategic Coalition Voting. *Electoral Studies* 44, 293–306.

Hobolt, Sara B., and Jeffrey A. Karp, J.A., 2010. Voters and coalition governments. *Electoral Studies* 29(3), 299–307.

Indridason, Indridi. 2011. Proportional Representation, Majoritarian Legislatures, and Coalitional Voting. *American Journal of Political Science* 55(4), 955–971.

Irwin, Galen A. and Joop van Holsteyn. 2012. Strategic Electoral Considerations under Proportional Representation. *Electoral Studies* 31(1), 184–191.

Kedar, Orit. 2005. When Moderate Voters Prefer Extreme Parties: Policy Balancing in Parliamentary Elections. *American Political Science Review* 99(2), 185–199.

Long, Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks: Sage.

Löfven, Stefan and Karin Jämtin. 2013. "If we win we are prepared to enter a cross-bloc government." [Vinner vi är vi beredda att regera över blockgränsen.] *Dagens Nyheter*, 8 November.

Mattila, Mikko and Tapio Raunio. 2002. Government Formation in the Nordic Countries: The Electoral Connection. *Scandinavian Political Studies* 25(3), 259–280.

McFadden, Daniel. 1974. Conditional Logit Analyses of Qualitative Choice Behavior, pp. 105–142 in (1974) P. Zarembka (ed.) *Frontiers in Econometrics*. New York: Academic Press.

Meffert, Michael F. and Thomas Gschwend. 2011. Polls, Coalition Signals and Strategic Voting: An Experimental Investigation of Perceptions and Effects. *European Journal of Political Research* 50(5), 636–667.

Oleskog Tryggvason, Per and Per Hedberg. 2015. *Swedish National Election Study Program Report. Super Election Edition.* Report 2015:02, Department of Political Science, University of Gothenburg.

Oscarsson, Henrik and Martin Rosema. 2016. Consideration Set Models for Party Choice: Theory, Approach and Possible gains. (Unpublished manuscript)

Oscarsson, Henrik and Sören Holmberg. 2013. *New Swedish Voters*. [Nya svenska väljare]. Stockholm: Norstedts Juridik.

Oscarsson et al. 1997. The concept of party set – A viable approach or just another way to slice the same cheese? Working paper, presented at SWEPSA

Oskarson, M., H. Oscarsson and E. Boije. Consideration Sets for Party Choice: Size, Content, Stability and Relevance. Report 2015:01, Swedish National Election Studies Program

Paap et al. 2005. Consideration sets, intentions and the inclusion of "don't know" in a two-stage model for vote choice. *International Journal of Forecasting* 21:53–71

Risa Hole, A. 2013. Mixed Logit Modelling – An Overview. Presentation prepared for UK Stata Users Group meeting September 2013. Available at http://www.stata.com/meeting/uk13/abstracts/materials/uk13_hole.pdf, accessed 04-06-2015.

Simon, Herbert A. 1954. Bandwagon and Underdog Effects and the Possibility of Election Predictions. The *Public Opinion Quarterly* 18(3), 245–253.

Steenbergen, M and D. Hangartner. 2008. Political Choice Sets in Multi-Party Elections. Unpublished manuscript

Tsebelis, George. 1986. A General Model of Tactical and Inverse Tactical Voting. *British Journal of Political Science* 16(3), 395–404.

Van der Eijk, Cees and Mark N. Franklin. 2009. *Elections and Voters*. Basingstoke and New York: Palgrave Macmillan.

De Vries, C. and Rosema, M. 2011 modelling electoral choice in two stages. A consideration set model of voting. Unpublished manuscript

Walther, Daniel. 2015. Picking the winner(s): Forecasting Elections in Multiparty Systems. *Electoral Studies* Vol 40, 1–13.

Wilson, Carole J. 2008. Consideration Sets and Political Choices: A Heterogeneous model of vote choice and subnational party strength. *Political Behavior* 20:161–183.

**Polling and vote share data accessed from the Internet**

Sifo. 2014. Polling levels for August-September 2014, available at http://tns-sifo.se/media/515546/v36.pdf (accessed 18-05-2016)

Valmyndigheten. 2016. Swedish General Election Results 2010, available at http://www.val.se/tidigare_val/ (accessed 17-12-2015)