Is Newer Better? New Political Parties Formation and Strategic Voting in the 2016 Taiwan Election

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Outline

• Motivation
• Theoretical framework
• Data
• Measurement of variables
• Model specification
• Empirical results
• Conclusion
Motivation: Both Parties Cannot Get Jobs Done!

The Sunflower Movement.

• Protested the passing of the Cross-Strait Service Trade Agreement (CSSTA) by the ruling party Kuomintang (KMT) at the legislature without clause-by-clause review.

• The biggest political protest in the past 30 years of Taiwan history.

• The awakening of political participation.
Disappointing Citizens : Let’s Do It Ourselves!

Two major parties are not reliable?
• The Emergence of New Party!
Dreamer? Doer?

Taiwan Legislative Yuan Election Participants: 2012 vs 2016

2012
15 parties
410 candidates

2016
28 parties
556 candidates
Small Parties in 2016 Election: Once in a lifetime moments? Or a breakthrough with long lasting support?

**Party Representation in the Legislative Yuan Following the 2012 General Elections**

- **DPP**: 40 seats (27 district / 13 at-large)
- **PFP**: 3 seats (1 indigenous constituency / 2 at-large)
- **TSU**: 3 seats (3 at-large)
- **KMT**: 64 seats (44 district / 4 indigenous constituency / 16 at-large)
- **NPSU**: 2 seats (1 district / 1 indigenous constituency)
- **IND**: 1 seat (1 district)

Total Seats: 113
Small Parties in 2016 Election: Once in a lifetime moments? Or a breakthrough with long lasting support?

2016 Legislative Election Results

- DPP: 68 seats (regional 50/at-large 18)
- KMT: 35 seats (regional 24/at-large 11)
- NewPower: 5 seats (regional 3/at-large 2)
- PFP: 3 seats (regional 0/at-large 3)
- NSU: 1 seat (regional 1/at-large 0)
- Other: 1 seat (regional 1/at-large 0)

113 seats
Small Parties in 2016 Election: Once in a lifetime moments? Or a breakthrough with long lasting support?


KMT 59 51.8 54.7 30.2 35.1 71.7 56.6 30 30
DPP 31.7 32.9 31.1 38.7 39.6 24 35.4 60 60
NP 12.8 4.9 0.4 0.4 0 0 0 0 0
PFP 20.2 15.1 0.9 2.7 2.7 2.7 2.7 2.7 2.7
TSU 5.8 5.3 0 0 0 0 0 0 0
NPP 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4
Motivation: Research Questions

• Few studies have examined the impacts of small parties on voting.

• Strategic voting behavior in Taiwan was largely ignored by most researchers until this 2016 election.

  • This study discusses the small parties and attempts to understand What accounts for the strategic voting behavior in this 2016 election?

  • This study expects to provide new insight into the connections between strategic voting, small parties performance and support for new parties in Taiwan.
Theoretical framework – New Parties


1) its political project, which should address problems considered urgent by substantial sections of the electorate.

2) its resources: members, money, management and mass media exposure.

3) the political opportunity structure: positions of other relevant parties as well as institutional, socio-economic and cultural conditions. This is the focus of this study!
Theoretical framework: Strategic Voting in different political system

Riker and Ordeshook (1968) “Calculus of Voting”:
• The voter is assumed to calculate the costs and benefits of voting and to vote for the candidate who can bring them the highest benefits with the least cost.

McKelvey and Ordeshook (1972) “Voting in Multiparty/Multicandidate elections” – Strategic Voting
• A voter might be willing to vote for her second most preferred party if the more preferred party is unlikely to win and if there is a close contest between the second and third ranked parties.
Theoretical framework: Strategic Voting in different political condition

Strategic voting results from confusion over party’s political positions or clarity?

Burden and Kimball (2002) – “Split vote due to confusion”
- “blurring boundaries between the parties” to increase the likelihood of split ticket outcomes.

Grofman et al., (2000) – “Split vote due to clarity”
- Voters are likely to face reasonably clear choices even in a confined issue space.
Theoretical framework

• We expect that
  • Although the “loyal” KMT supporters still vote for the KMT presidential candidate, they choose to cast party votes for small parties, especially New Party, to express their disappointment toward the incumbent party, KMT. \( \rightarrow \) increase vote share of small parties.
  • The PFP presidential candidate may attract some KMT supporters and independent voters, but they choose to vote for small parties instead of the PFP with regard to party votes. \( \rightarrow \) increase vote share of small parties.
  • The DPP presidential candidate may attract some pan-blue supporters, and they choose to vote for their favorite parties, the KMT or PFP, with regard to party votes. Besides, the DPP urged supporters not to split party votes. \( \rightarrow \) decrease vote share of small parties.
Theoretical framework

• Hypotheses:
  • *Hypothesis 1*: KMT strategic voting is positively associated with support for small parties.
  • *Hypothesis 2*: PFP strategic voting is positively associated with support for small parties.
  • *Hypothesis 3*: DPP strategic voting is negatively associated with support for small parties.
Data and Measurement of Variables

• Data source: Central Election Commission
  • http://www.cec.gov.tw/bin/home.php
  • Unit of analysis: Township
  • Number of observation: 368

• Dependent variables: Vote share of small parties
  • $DV_1 = \frac{PV_{Total} - PV_{DPP} - PV_{KMT} - PV_{PFP}}{PV_{Total}} \times 100$
  • $DV_2 = \frac{PV_{Total} - PV_{DPP} - PV_{KMT} - PV_{PFP}}{PV_{Total} - PV_{PFP}} \times 100$
  where $PV$ is party votes.
  • $DV_1$ treats PFP as a non-small party, whereas $DV_2$ excludes PFP.
  • Robust check.
Data and Measurement of Variables

• Independent variables: **Strategic voting**
  • Assumption: *The difference between presidential votes and party votes is due to strategic voting.*

1. **DPP strategic voting** \( (sv) = \frac{PRV_{DPP} - PV_{DPP}}{1000} \)

2. **KMT strategic voting** \( (sv) = \frac{PRV_{KMT} - PV_{KMT}}{1000} \)

3. **PFP strategic voting** \( (sv) = \frac{PRV_{PFP} - PV_{PFP}}{1000} \)

where \( PRV \) is presidential votes and \( PV \) is party votes.

• \( sv = 0 \): no strategic voting.
• \( sv > 0 \) or \( sv < 0 \): strategic voting.
• \( sv < 0 \): DPP (0 township), KMT (26 townships), and PFP (3 townships).
Data and Measurement of Variables

• Control variables:
  • *Vote share of small parties in 2012*: The voter base for small parties in each township.
  • *Village head*: (1) DPP, (2) KMT, (3) Nonpartisan, and (4) Appointed.
  • *Difference in invalid ballots*: The difference in invalid ballots between presidential and party votes in each township.
    • Assumption: *Voters cast invalid ballots on purpose (protest vote)*.
    • The difference reflects that although voters do not like all presidential candidates, they cast party votes for some party.
  
  • *Turnout*: Voter turnout for party votes in each township.
  • *Percentage of female voters*: Percentage of eligible female voters in each township.
Model Specification

- OLS regression model:

\[ \text{Vote share of small parties}_i = \beta_0 + \beta_1 (DPP SV_i) + \beta_2 (KMT SV_i) + \beta_3 (PFP SV_i) + \beta_4 (\text{Vote share of small parties in 2012}_i) + \beta_5 (DPP village head}_i) + \beta_6 (KMT village head}_i) + \beta_7 (\text{Nonpartisan village head}_i) + \beta_8 (\text{Difference in invalid ballots}_i) + \beta_9 (\text{Turnout}_i) + \beta_{10} (\text{Female}_i) \]
Model Specification

• The effects of county-level factors: *mayoral approval* and *percentage of voters aged 20 to 39*.
  
  • *Mayoral approval*: The 2015 Local Leader Approval Survey conducted by *CommonWealth Magazine* (天下雜誌).
  
  • *Percentage of voters aged 20 and 39*: Central Election Commission.
  
• Multilevel model: *Random intercept model*

\[
\text{Vote share of small parties}_{ij} = \beta_0 + \beta_1(DPP SV_{ij}) + \beta_2(KMT SV_{ij}) + \beta_3(PFP SV_{ij}) + \beta_4(\text{Vote share of small parties in 2012}_{ij}) + \beta_5(DPP village head}_{ij}) + \beta_6(KMT village head}_{ij}) + \beta_7(\text{Nonpartisan village head}_{ij}) + \beta_8(\text{Difference in invalid ballots}_{ij}) + \beta_9(\text{Turnout}_{ij}) + \beta_{10}(\text{Female}_{ij}) + \beta_{11}(\text{Mayoral approval}_{ij}) + \beta_{12}(\text{Voters aged 20 to 39}_{ij}) + u_j
\]
<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min.</th>
<th>Max.</th>
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<td>2016 vote share of small parties_1</td>
<td>20.72</td>
<td>4.61</td>
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<td>2016 vote share of small parties_2</td>
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<td>KMT strategic voting</td>
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<td>3.07</td>
<td>-0.41</td>
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<td>PFP strategic voting</td>
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<td>2.66</td>
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<td>2012 vote share of small parties_1</td>
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<td>Village head</td>
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<td>DPP</td>
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<td>KMT</td>
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<td>Nonpartisan</td>
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<td>Appointed</td>
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<td>Difference in invalid ballots</td>
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<td>0.22</td>
<td>-1.29</td>
<td>0.62</td>
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<tr>
<td>Turnout</td>
<td>63.05</td>
<td>7.78</td>
<td>16.17</td>
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<td>Percentage of female voters</td>
<td>48.69</td>
<td>2.41</td>
<td>38.44</td>
<td>54.55</td>
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<tr>
<td>Mayoral approval</td>
<td>64.15</td>
<td>10.22</td>
<td>43.31</td>
<td>79.06</td>
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<tr>
<td>Percentage of voters aged 20 to 39</td>
<td>37.33</td>
<td>1.96</td>
<td>33.73</td>
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<tr>
<td>N</td>
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Empirical Results

Table 2. OLS Regression Analysis for Vote Share of Small Parties

<table>
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<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>(R.S.E.)</td>
<td>Coef.</td>
<td>(R.S.E.)</td>
</tr>
<tr>
<td>DPP strategic voting</td>
<td>-0.625</td>
<td>***</td>
<td>-0.765</td>
<td>***</td>
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<tr>
<td>KMT strategic voting</td>
<td>0.456</td>
<td>***</td>
<td>0.501</td>
<td>***</td>
</tr>
<tr>
<td>PFP strategic voting</td>
<td>1.383</td>
<td>***</td>
<td>1.671</td>
<td>***</td>
</tr>
<tr>
<td>2012 vote share of small parties</td>
<td>0.210</td>
<td>***</td>
<td>0.249</td>
<td>***</td>
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<tr>
<td>Village head</td>
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<tr>
<td>DPP</td>
<td>0.887</td>
<td>**</td>
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<td>KMT</td>
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<td>**</td>
<td>1.741</td>
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<tr>
<td>Nonpartisan</td>
<td>1.202</td>
<td>*</td>
<td>1.335</td>
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<tr>
<td>Difference in invalid ballots</td>
<td>1.568</td>
<td>*</td>
<td>1.629</td>
<td>*</td>
</tr>
<tr>
<td>Turnout</td>
<td>-0.183</td>
<td>***</td>
<td>-0.214</td>
<td>***</td>
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<tr>
<td>Percentage of female voters</td>
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<td>***</td>
<td>0.554</td>
<td>***</td>
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<tr>
<td>Constant</td>
<td>1.174</td>
<td>(5.861)</td>
<td>3.616</td>
<td>(6.472)</td>
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<tr>
<td>Number of observations</td>
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<td>368</td>
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<td>$F$-statistic</td>
<td>27.80</td>
<td>***</td>
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<td>$R^2$</td>
<td>0.34</td>
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<td>0.35</td>
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</tbody>
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Note: 1. ***: $p < 0.01$; **: $p < 0.05$; *: $p < 0.10$.
2. R.S.E.: Robust standard error.
Empirical Results

Figure 1. The Effect of DPP Strategic Voting on Vote Share – Model 1

Figure 2. The Effect of DPP Strategic Voting on Vote Share – Model 2
Empirical Results

Figure 3. The Effect of KMT Strategic Voting on Vote Share – Model 1

Figure 4. The Effect of KMT Strategic Voting on Vote Share – Model 2
Empirical Results

Figure 5. The Effect of PFP Strategic Voting on Vote Share – Model 1

Figure 6. The Effect of PFP Strategic Voting on Vote Share – Model 2
## Empirical Results

<table>
<thead>
<tr>
<th>Table 3. Multilevel Analysis for Vote Share of Small Parties</th>
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<tr>
<td><strong>Model 1</strong></td>
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<tr>
<td><strong>Coeff.</strong></td>
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<td>Fixed effect</td>
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<td>DPP strategic voting</td>
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<td>KMT strategic voting</td>
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<tr>
<td>PFP strategic voting</td>
</tr>
<tr>
<td>2012 vote share of small parties</td>
</tr>
<tr>
<td>Village head</td>
</tr>
<tr>
<td>DPP</td>
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<tr>
<td>KMT</td>
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<tr>
<td>Nonpartisan</td>
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<tr>
<td>Difference in invalid ballots</td>
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<td>Turnout</td>
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<tr>
<td>Percentage of female voters</td>
</tr>
<tr>
<td>Mayoral approval</td>
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<td>Percentage of voters aged 20 to 39</td>
</tr>
<tr>
<td>Constant</td>
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<td>Random effect</td>
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<td>Variance of intercept</td>
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<td>Number of groups</td>
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<tr>
<td>Average number of observations per group</td>
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<tr>
<td>Wald chi-square test</td>
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<tr>
<td>Likelihood-ratio test</td>
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</tbody>
</table>

Note: ***: $p < 0.01$; **: $p < 0.05$; *: $p < 0.10$. 

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Empirical Results

Figure 7. The Effect of Voters aged 29 to 39 on Vote Share – Model 1

Figure 8. The Effect of Voters aged 29 to 39 on Vote Share – Model 2
Conclusion

• Strategic voting does exist in the 2016 presidential and legislative elections:
  • DPP strategic voting decrease vote share of small parties.
  • KMT and PFP strategic voting increase vote share of small parties.

• The results imply that:
  • People who cast invalid votes in the presidential election are more likely to vote for small parties.
  • Higher turnout might be adverse to small parties.
  • Females are more likely to vote for small parties.
  • Younger voters are more likely to vote for small parties.
Conclusion

• Limitations:
  • Aggregate data cannot be used to infer individual voting behavior.
  • The difficulty to test the assumptions:
    • *The difference between presidential votes and party votes is due to strategic voting.*
    • *Invalid votes come from individual intentional behavior.*

• Next steps:
  • Candidate nomination and vote share of each small party.
  • Individual-level analysis: *Taiwan’s Election and Democratization Study, 2016.*
## Appendix

### Invalid ballots

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
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<tbody>
<tr>
<td>Presidential votes</td>
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<td>567</td>
<td>1</td>
<td>3634</td>
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<tr>
<td>Party votes</td>
<td>698</td>
<td>673</td>
<td>2</td>
<td>4623</td>
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<tr>
<td>N</td>
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