Populism and
Civic Engagement

An Evidence-Driven Model of Voting and Party Competition

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Context

- The Populism and Civic Engagement (PaCE) Project investigates populist movements across Europe in order to find possible responses to combat their negative effects on liberal democracies.
- Agent-based simulation of political processes and attitudes is one of the tools employed
- Start with a reference model for one relevant case study that can be evaluated based on available survey data and expertise
- Austria
  - Comprehensive empirical data for demand and supply side
    - AUTNES (Austrian National Election Survey)
    - CHES (Chapel Hill Expert Survey)
  - Established radical-right populist party (FPÖ), twice in government so far
  - Period between 2013 and 2017 contains relevant political events (migrant crisis)

Overview of the Model

- Domain: Complex adaptive system of
  - Parties: competing with each other for voter support
  - Voters: seeking the ‚best' party satisfying their demand for particular issues
  - The media: influencing issue salience in the public debate
  - All acting in a political space spanned by the issues under discussion
- Following in the tradition of spatial models going back to Downs (1957)
- Adding empirical data and theories from political science about voting and party behaviour

Downs, A.: An Economic Theory of Democracy. Harper Collins, New York (1957).

The political space

- We identified seven common issues from AUTNES (voters) and CHES (parties):
  - **Economy:** pro/against state intervention in the economy
  - **Welfare state:** pro/against redistribution of wealth
  - **Budget:** pro/against raising taxes to increase public services
  - **Immigration:** against/pro restrictive immigration policy
  - **Environment:** pro/against protection of the environment
  - **Society:** pro/against same rights for same-sex unions
  - **Law and order:** against/pro strong measures to fight crime, even to the detriment of civil liberties
- All agents are placed in this space according to their positions on these issues

Voters

- Demographic attributes
  - Age, gender, education, income level, residential area
- Political attributes
  - Political interest, closest party, degree of closeness, propensities to vote for parties, party they voted for in the last election
- Positions on the seven issues
  - Most important issues (0-3) with weights
- Social network
  - Links with most similar voters (age, education, residential area) from a randomly chosen pool
- All attributes are initialised from the 2013 AUTNES

Parties

- Name, party colour
- Party programme
  - Positions on the seven issues
  - 1-3 most important issues with weights
- All attributes initialised from the 2014 CHES

Party Behaviour

- Strategies defined by Laver (2005) and Muis & Scholte (2013)
- **Aggregator**
  - Adopt ideological stance of supporters by moving towards the average position of their current supporters
- **Satisficer**
  - Only move if current vote share falls under a certain threshold; then act like an aggregator
- **Hunter**
  - If last move increased vote share, keep moving in the same direction. Otherwise, turn around and move in new direction randomly chosen from 180° arc
- **Sticker**
  - Do not change position, i.e. stick with the party programme

Laver, M.: Policy and the Dynamics of Political Competition. *American Political Science Review* 99(2), 263-281 (2005).
Muis, J., Scholte, M.: How to find the 'winning formula'? *Acta Politica* 48(1), 22-46 (2013)

Voter Behaviour: Opinion Formation

- Most ABM of party competition assume voters have 'fixed' opinions, i.e. their positions in the political space do not change
- Our model lets voters change their opinions via political discussions
- Based on a modified multi-dimensional opinion dynamics model (Schweighofer et al. 2020)
  - Mechanism to select discussion partner
    - Randomly from all voters, interaction only if ideological distance < threshold
    - Threshold individual for each voter based on 'affective level' (political interest)
  - Mechanism to change opinion (following Baldassarri & Bearman 2007)
    - Compromise: move closer to each other's position on discussed issue if agreement on majority of other issues
    - Repulsion: move further away from each other if disagreement on most of other issues

Schweighofer, S., Garcia, D., Schweitzer, F.: An agent-based model of multi-dimensional opinion dynamics and opinion alignment. *Chaos: An Interdisciplinary Journal of Nonlinear Science* 30(9), 093139 (2020).
Baldassarri, D., Bearman, P.: Dynamics of Political Polarization. *American Sociological Review* 72(5), 784-811 (2007).

Voter Behaviour: Decision Strategies

- Strategies identified by Lau et al. (2018); operationalised for our model
- **Rational choice:** Compare all parties on all issues
  - Choose party closest to me (Euclidean distance in all seven dimensions)
- **Confimatory:** Heavily influenced by party identification
  - Choose party I feel closest to (taken from AUTNES data)
- **Fast and frugal:** Only compare parties on important issues for efficiency
  - Choose party closest to me on my two most important issues (weighted distance)
- **Heuristics-based:** Apply a heuristic, e.g. follow friends' recommendations
  - Pick party chosen by majority of my social links
- **Go with gut:** Strictly affective, no information search
  - Choose party for which I have the highest propensity to vote for (AUTNES data)

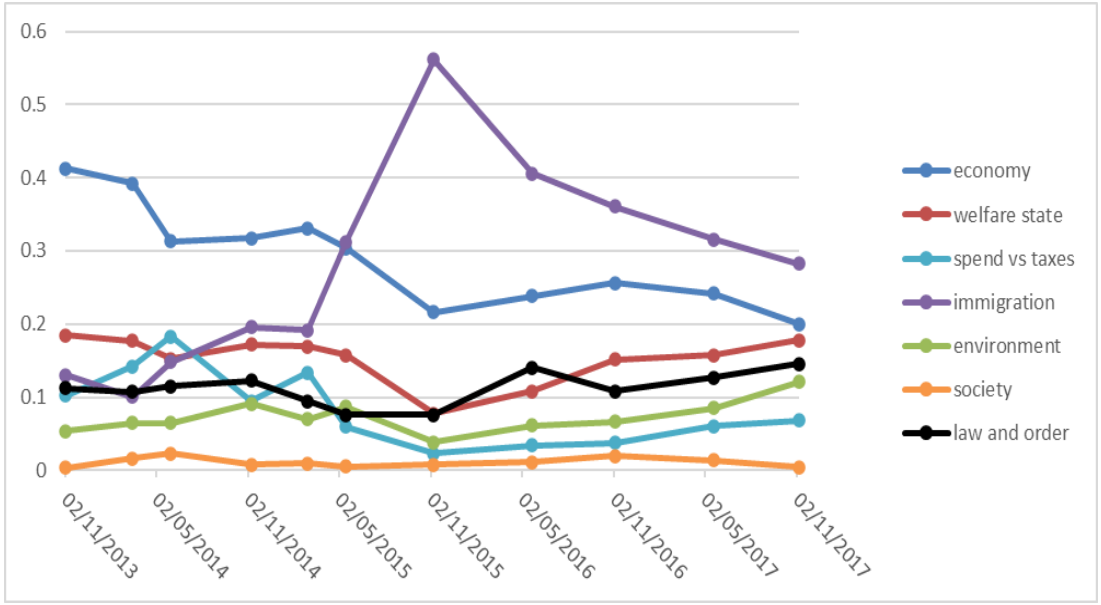
Lau, R., Kleinberg, M., Ditonto, T.: Measuring voter decision strategies in political behavior and public opinion research. *Public Opinion Quarterly* 82(S1), 911-936 (2018).

Assigning Strategies to Voters

- Problem: which voter uses which strategy?
- No clear, unambiguous allocation available
  - Lau et al. (2018) report only vague correlations of demographic/political variables with strategy types ("rational choice is particularly high among women, young people and respondents with high levels of political interest")
  - Best allocation attempt using additional data from AUTNES restricts pool of survey participants to those whose vote in 2013 is known (1060 out of 3266)
  - Result: 31% of voters with exactly one strategy, 51% with 2-4, 18% with none
- Allocation process applies mixture of deterministic and random assignment under constraint of given strategy proportions (model parameter)

External Influences

- Effect of refugee crisis in 2015/16
  - Change of issue salience in public opinion over time
  - Data from Eurobarometer surveys taken as proxy for actual media influence
  - Determine which topics voters talk about



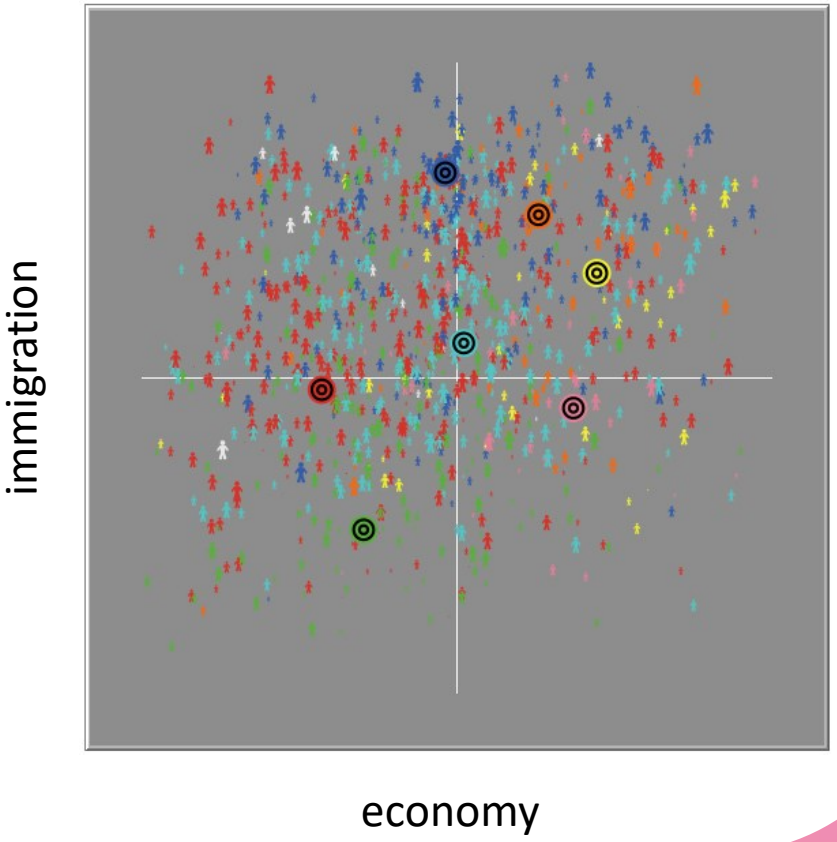
External Influences

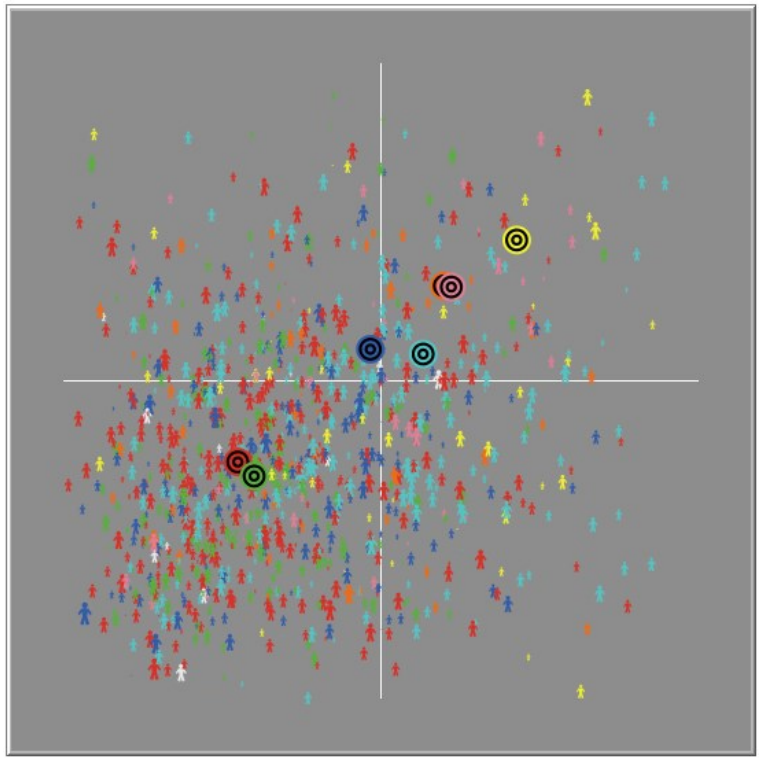
- Leadership change in the ÖVP in 2017
  - New leader Sebastian Kurz changed party ideology, emphasised immigration policy above all else
  - Modelled as adaptation of Aggregator strategy (include immigration as most important issue, direction of move mediated by party's ideology (ideal positions) instead of purely aiming for centre of supporters, following Laver & Sergenti (2012)
  - New ideal positions taken from 2019 CHES
    - Austria did not feature in 2017 CHES

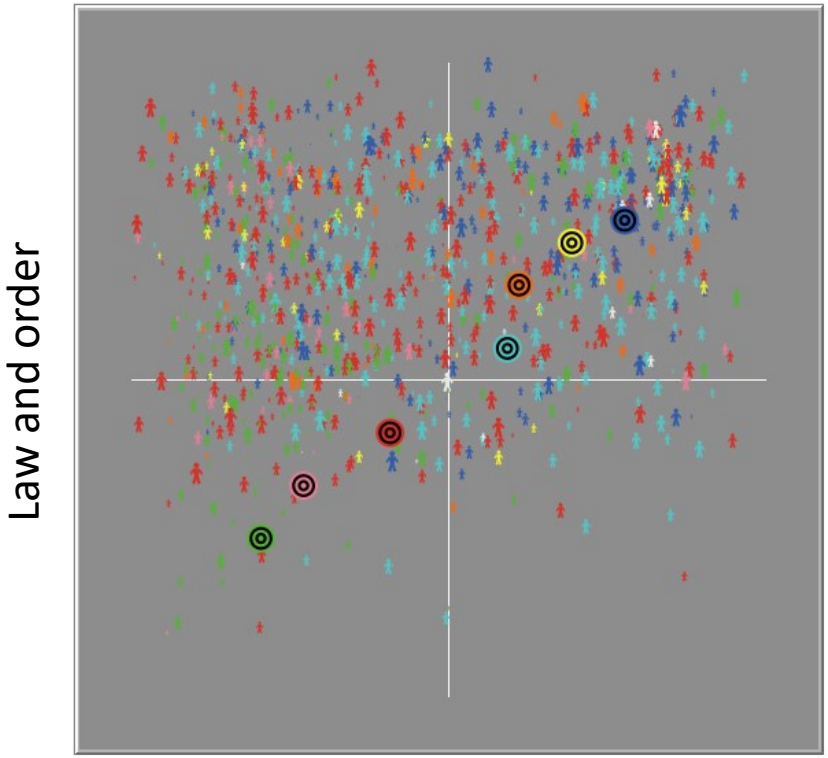
Laver, M., Sergenti, E.: *Party Competition. An Agent-Based Model*. Princeton University Press, Princeton (2012).

Model Initialisation

- Parties (7) are placed according to the party positions
  - SPÖ (red), ÖVP (cyan),
  - FPÖ (blue), Grüne (green),
  - NEOS (pink), BZÖ (orange), Team Stronach (yellow)
- Voters (1060) are placed in the political landscape according to their opinions
  - with some random noise added
  - Adopt colour of party they currently would vote for



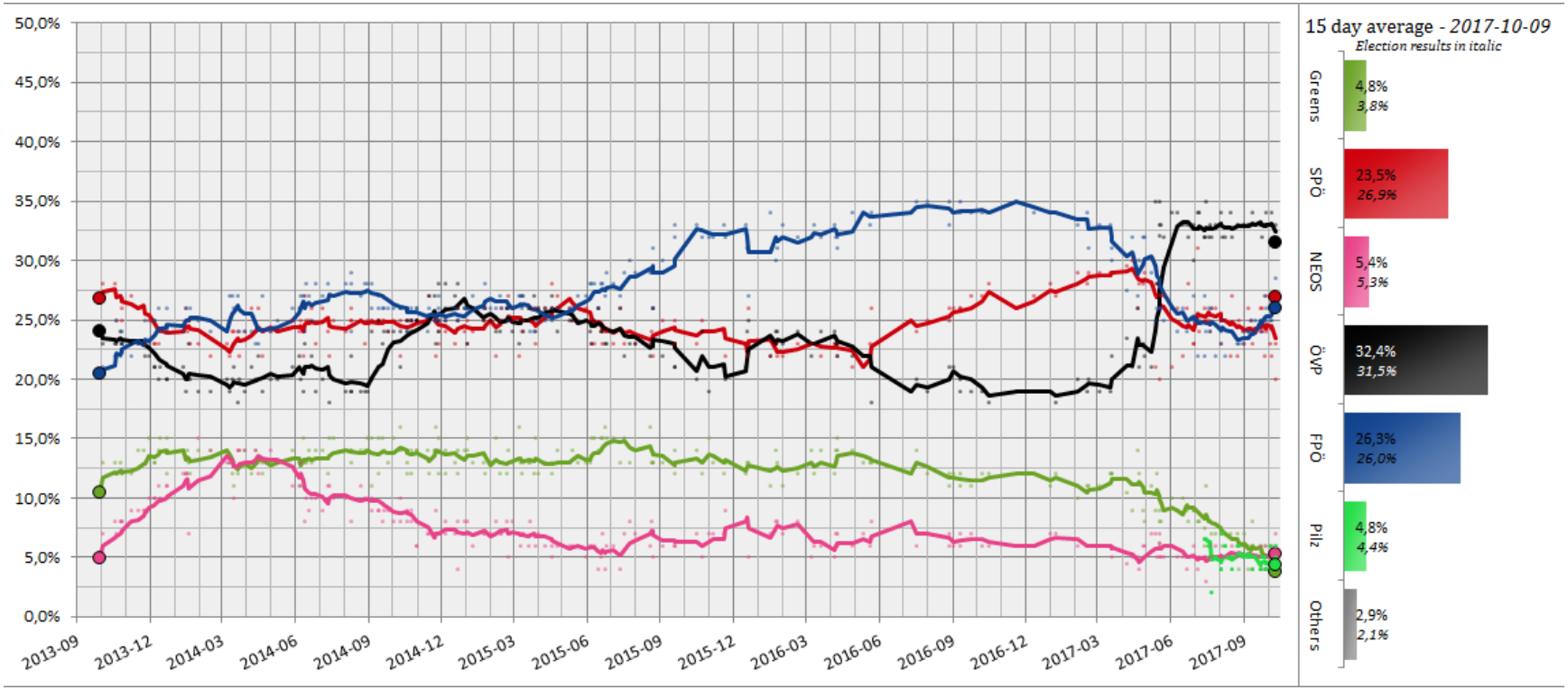

Budget
Welfare state


Law and order
Society

Simulated Scenarios: Varying Voter Decision Strategies

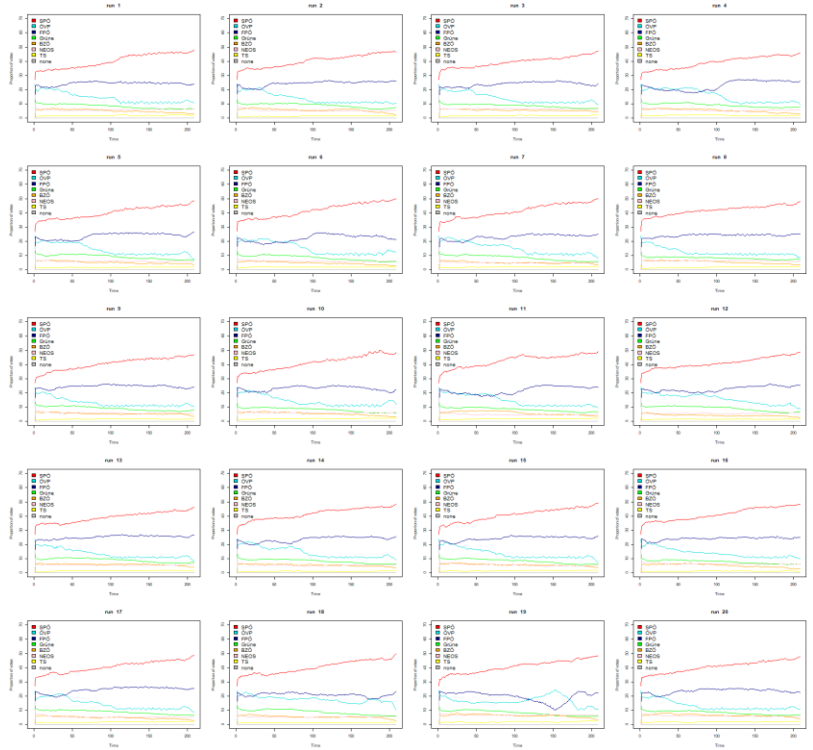
- (1) All voters using Rational Choice
- (2) All voters using Fast and Frugal
- (3) Voters using a mix of strategies taken from our analysis of AUTNES
  - Rational Choice: 18.3 %
  - Confirmatory: 29.8 %
  - Fast and Frugal: 38.5 %
  - Heuristics-based: 4.9%
  - Go with Gut: 8.5%
- Compared to observed historical data (opinion polls 2013-2017, election results 2017)
- Model run for 208 steps (4 years, 1 step = 1 week), 20 runs per scenario
- Party strategies fixed: SPÖ, ÖVP Aggregator, FPÖ Hunter, rest Sticker

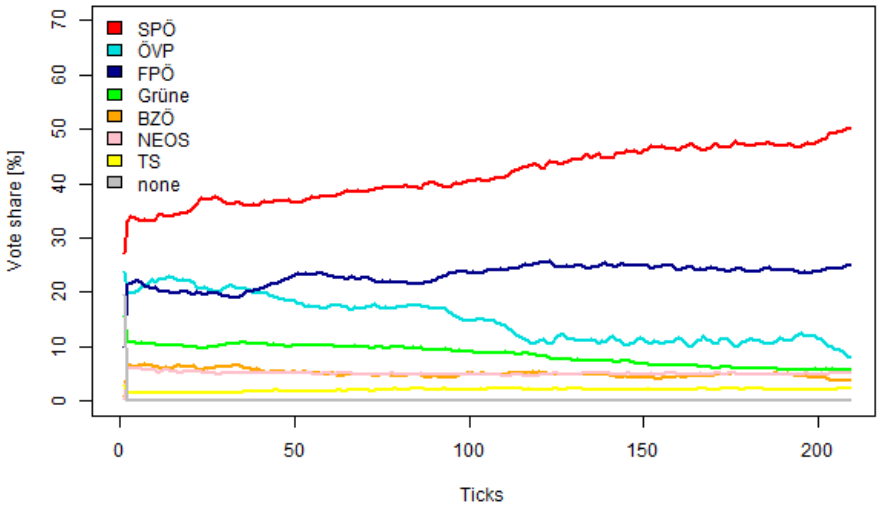
Opinion polls 09/2013 - 09/2017



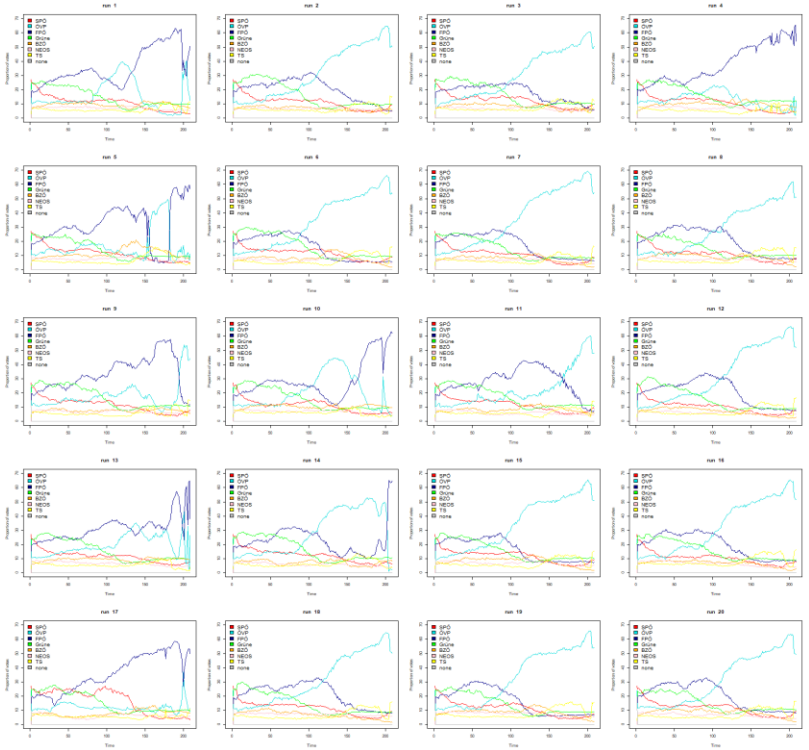
Source: https://en.wikipedia.org/wiki/Opinion_polling_for_the_2017_Austrian_legislative_election

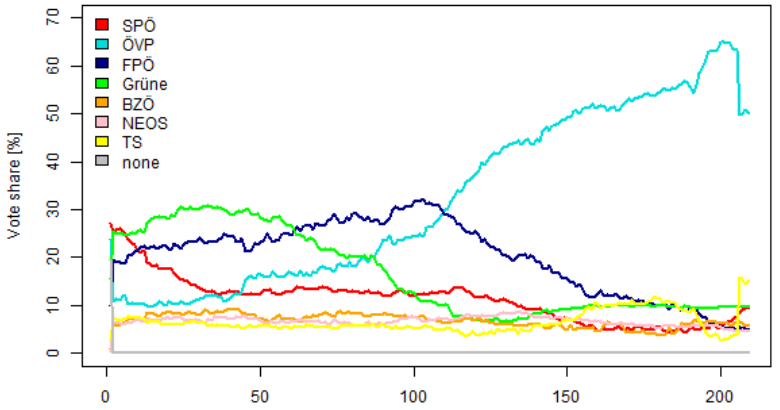
Scenario 1: All Rational Choice

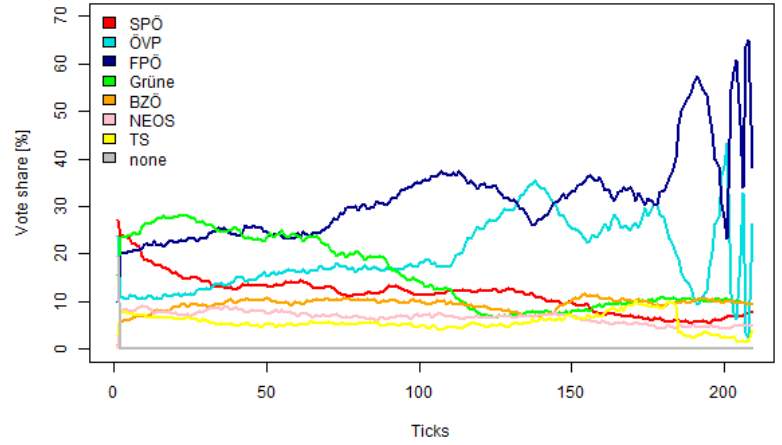




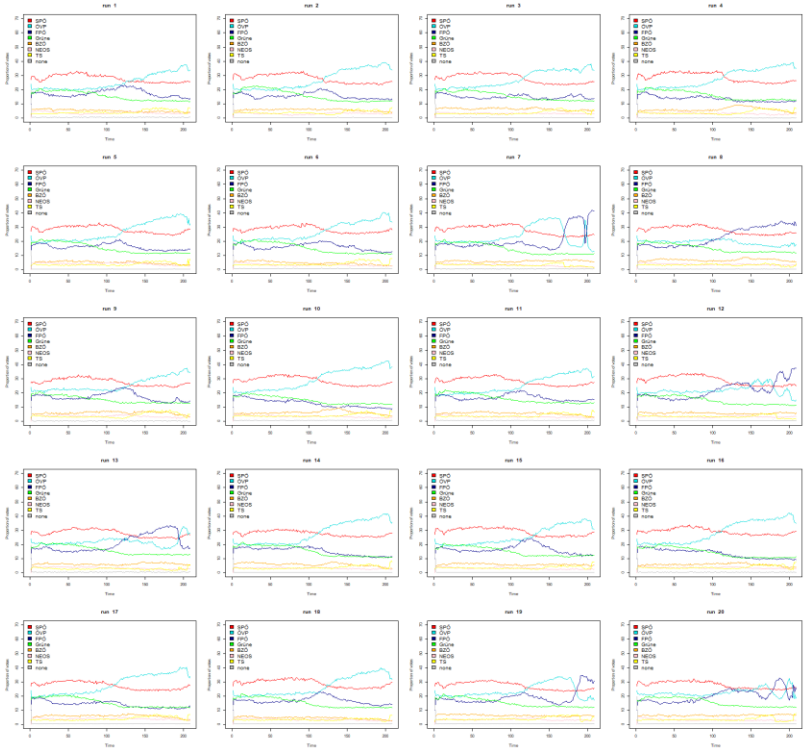
Scenario 2: All Fast and Frugal

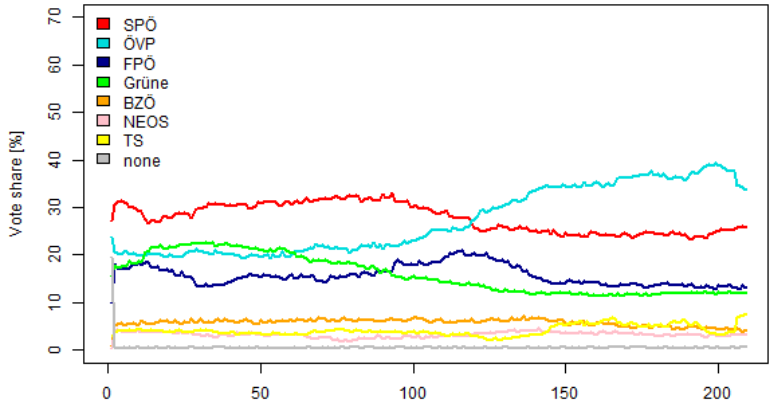


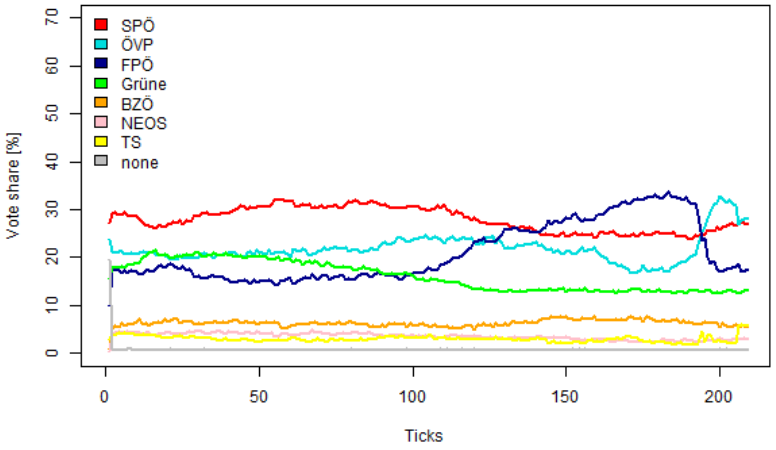




Scenario 3: Mix of Strategies







Conclusion and Outlook

- Type and mix of voter decision strategies have huge impact on electoral outcomes
  - Usual assumption of 'rational' voters seems unfounded
- Only a small proportion of runs come qualitatively close to observed historical data
- Mix of strategies is necessary but not sufficient to achieve this

- Further investigation of conditions leading to "successful" runs
- Work on other what-if scenarios with this model
- Develop similar models for other countries

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http://popandce.eu