How pervasive is strategic voting?

Andy Eggers (University of Chicago)

April 21, 2022

THOSE WHO SUPPORT
JILL STEIN ARE TOO
YOUNG TO REMEMBER
WHAT HAPPENED TO
AL GORE IN 2000.

LIFE WOULD BE DIFFERENT TODAY HAD PEOPLE
NOT WASTED THEIR VOTE ON RALPH NADER.

CONSERVATIVES ARE DESTROYING OUR FUTURE | CADOF.ORG

Today's focus

A puzzling empirical finding:

- ▶ Substantial proportion of voters in PR elections (1/5, say Blais & Gschwend 2011) do not vote for their (apparently) preferred party
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Plan:

- ▶ document puzzle
- ▶ consider strategic voting as an explanation
- ▶ argue that measurement error is a better explanation
- ▶ offer new approach that eliminates puzzle
- ▶ consider implications for study of strategic voting more broadly

Some definitions

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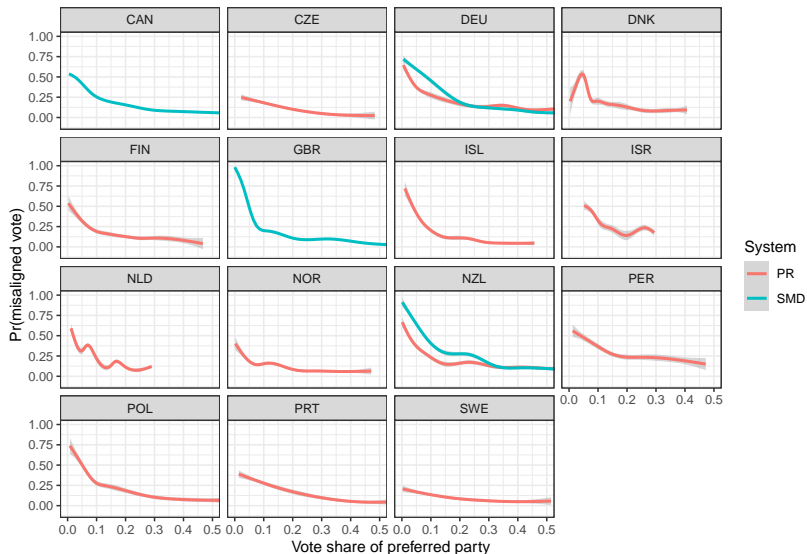
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Misaligned voting rate by local strength of preferred party: BES 2019
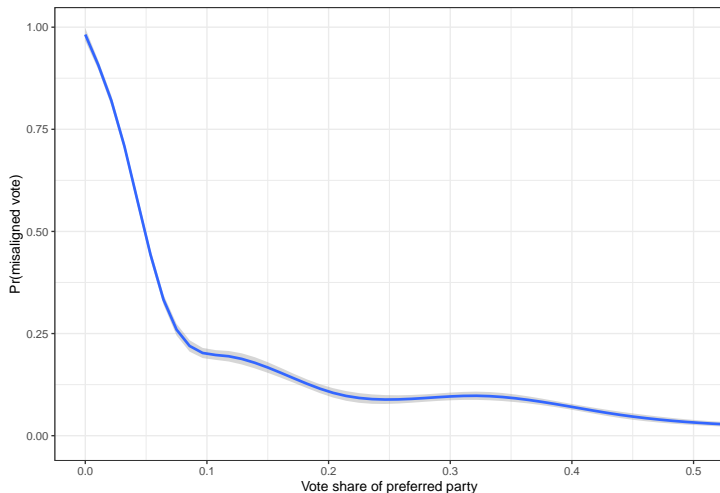
Same thing for more countries (CSES, CES)

[P]atterns of strategic voting across FPTP and PR bear striking similarities. In every election, smaller parties tend to lose votes to major parties. Because there tend to be more small parties in PR systems, [misaligned] voting is actually more common under PR than under FPTP.

— Abramson, Aldrich, Blais, Diamond, Diskin, Indridason, Lee & Levine (2010)

Strategic voting as an explanation?

Table 16.2 Strategic coalition voting motivations and strategies

	Motivation			
Strategy	Avoiding a wasted vote	Coalition Composition (Parties)	Coalition Portfolio (Policy)	Checks-and-balances
– Defection from losing party	X			
– Rental vote/threshold insurance		X		X
– Destructive vote		X		X
– Strengthen expected coalition party		X	X	
– Formateur selection/strategic sequencing		X	X	
– Strategic balancing			X	X
– Strategic abstention		X	X	X

Gschwend & Meffert (2017)

Strategic voting: a general framework

Voter has utility for each of *M* possible election outcomes:

$$\mathbf{u} = (u_1, u_2, \ldots, u_M)$$

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In FPTP literature outcomes are (local) winners; in PR literature outcomes are government coalitions.

Strategic voting in PR

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Two distinct reasons for voter who prefers j to cast misaligned vote for k:

▶ would rather give j an extra seat, but vote for j is "wasted" (given voting outlook)

▶ would rather give k an extra seat (given coalition outlook)

Could strategic voting explain our puzzle?

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But:

▶ other types do not favor larger parties (threshold insurance favors smaller!)

▶ leader selection relevant in e.g. UK, Canada too

▶ pivot probabilities for coalition formation miniscule (compared to representation)!

Measurement error as alternative explanation

In survey-based studies of strategic voting, researchers infer voters'
preferred party using questions like,

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Less obviously, misclassifications more likely among voters who appear to prefer small parties.

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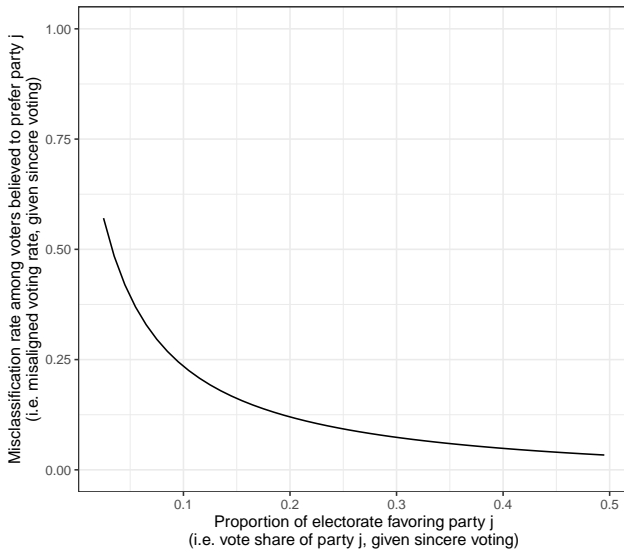
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Then

- ▶ share classified as preferring j: $(1 - \varepsilon)\pi_j + \varepsilon/K$ (incr. in π_j)
- ▶ share **incorrectly** classified as preferring j: $(1 - \pi_j)\varepsilon/K$ (decr. in π_j)
- ▶ $\implies$ misclassification rate higher for smaller parties

  Misclassification rate for party $j \equiv$ Pr(does not prefer j | classified as preferring j)

Assuming five parties and error rate of .15

Proportion of electorate favoring party j
(i.e. vote share of party j, given sincere voting)

Misclassification rate among voters believed to prefer party j
(i.e. misaligned voting rate, given sincere voting)
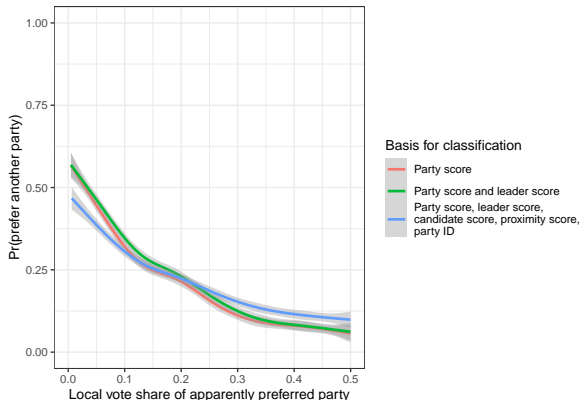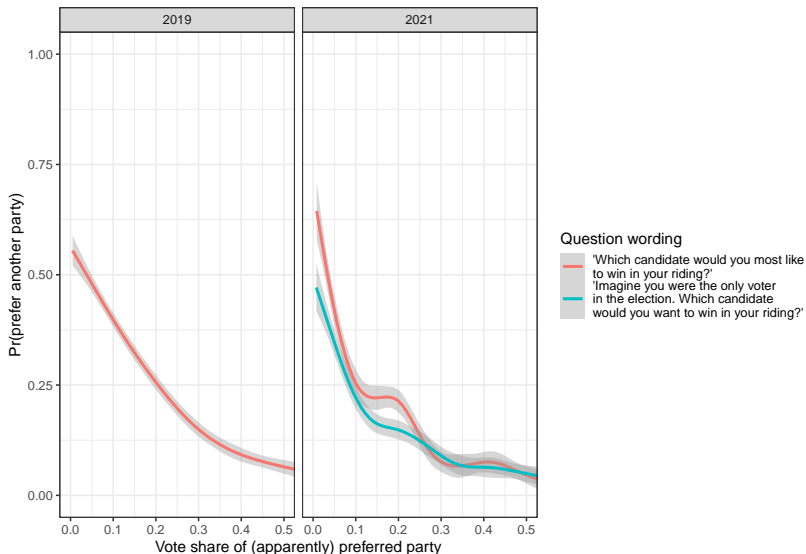
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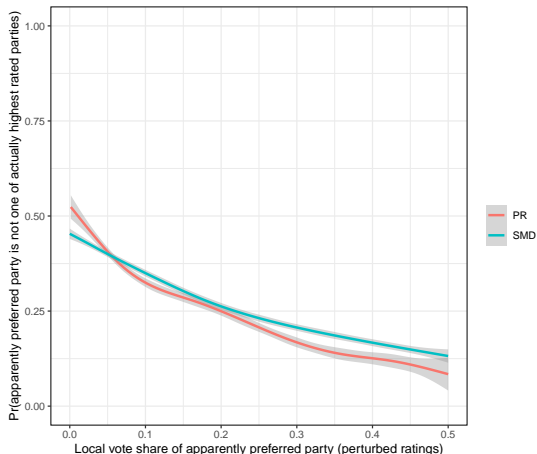Voters who appear to prefer a weak party often don't:

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Comparing actual party scores to perturbed party scores:

Another measurement error theory

Perhaps small parties are worse on omitted dimensions of preference, e.g.

▶ less popular leaders (cause and consequence of being a small party)
▶ less trusted to govern (cause and consequence of being a small party)

A solution

Don't try to infer preferred party.

Instead, use discrete choice model, where utility may depend on the party's vote share:

$$u_{ij} = \mathbf{x}_{ij}\beta + g\left(\text{vote share}_j\right) + \epsilon_{ij}$$

where $\mathbf{x}_{ij}$ contains various preference measures and $g()$ is a flexible function (cubic splines).

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I estimate by multinomial logit separately in each country.

- ▶ avoids classification error problem
- ▶ allows for inclusion of all available preference data
- ▶ accommodates various estimands

Predicted utility as function of vote share
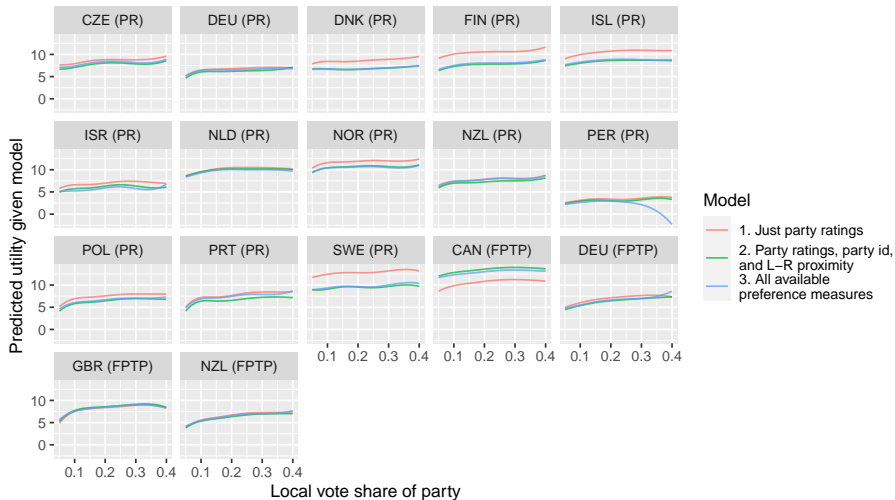
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Given two parties about which voter is otherwise indifferent, ratio of probability of voting for one w. vote share of .3 vs vote share of .1

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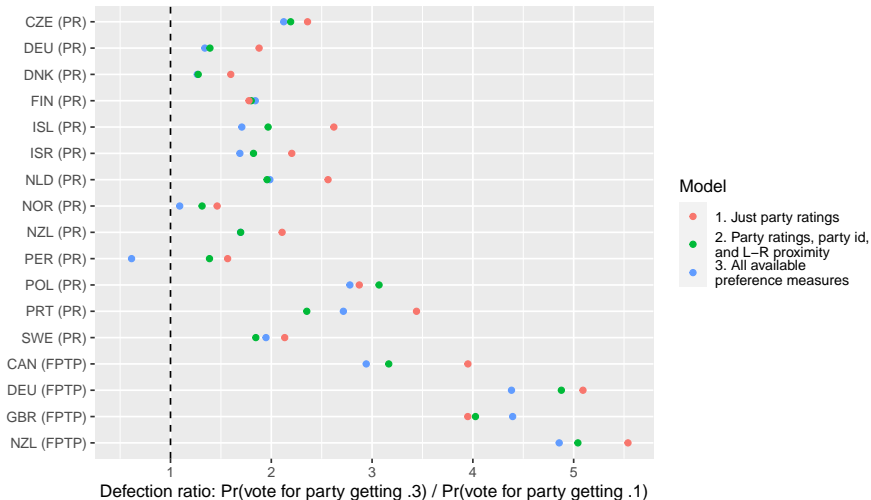
Given multinomial logit assumption,

$$\frac{\hat{\Pr}(\text{vote for } j \mid v_j = .3)}{\hat{\Pr}(\text{vote for } k \mid v_k = .1)} = \frac{e^{\hat{g}(.3)}}{e^{\hat{g}(.1)}}$$

Vote probability ratios

Defection ratio: Pr(vote for party getting .3) / Pr(vote for party getting .1)

Model
- 1. Just party ratings
- 2. Party ratings, party id, and L–R proximity
- 3. All available preference measures

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What measure of discrepancy?

Let $(\hat{\pi}_1, \hat{\pi}_2, \ldots, \hat{\pi}_m)$ denote i's predicted prob. of voting for each alternative;
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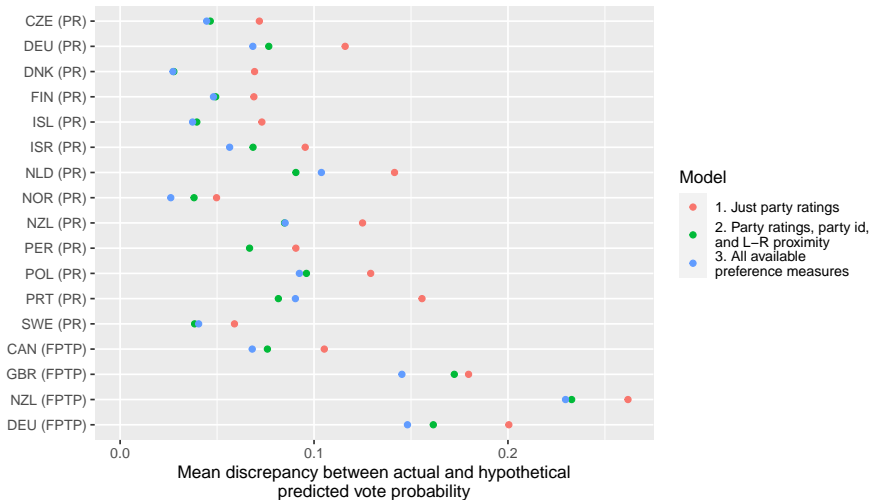
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- ▶ RMSE: $\sqrt{\frac{1}{m} \sum_{j=1}^{m} (\hat{\pi}_j - \hat{\pi}'_j)^2}$
- ▶ Absolute error: $\frac{1}{2} \sum_j \left| \hat{\pi}_j - \hat{\pi}'_j \right|$

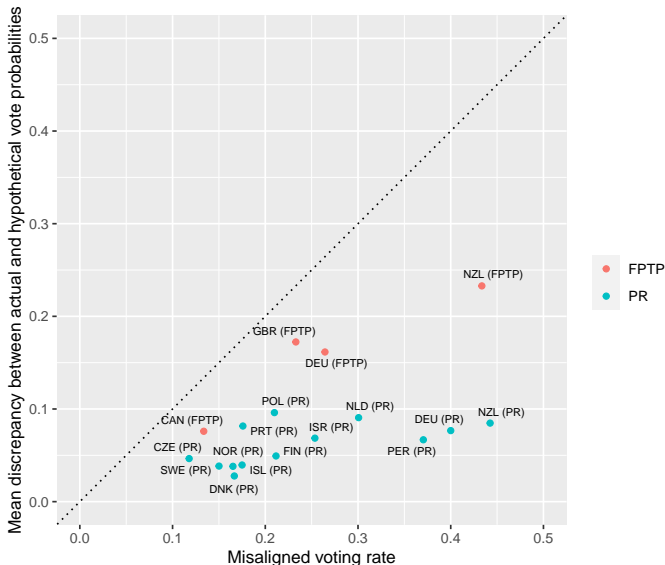# Vote probability discrepancies (RMSE)
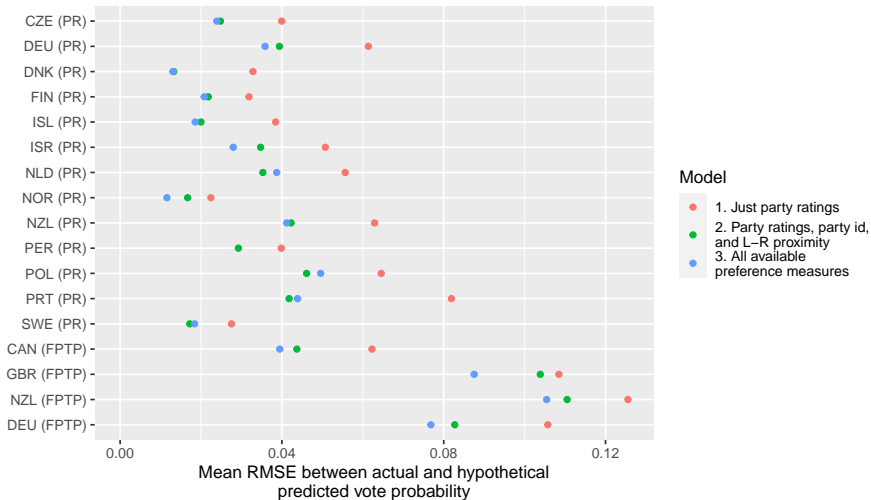
Vote probability discrepancies (Absolute error)

Vote probability discrepancies vs. misaligned voting rate

Mean discrepancy between actual and hypothetical vote probabilities (y-axis) vs. Misaligned voting rate (x-axis). Data points labeled: NZL (FPTP), GBR (FPTP), DEU (FPTP), POL (PR), NLD (PR), NZL (PR), CAN (FPTP), PRT (PR), ISR (PR), DEU (PR), CZE (PR), NOR (PR), FIN (PR), PER (PR), SWE (PR), ISL (PR), DNK (PR). Legend: FPTP, PR.
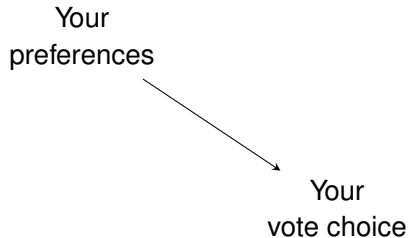
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- ▶ Better explained by researcher error in inferring preferred party
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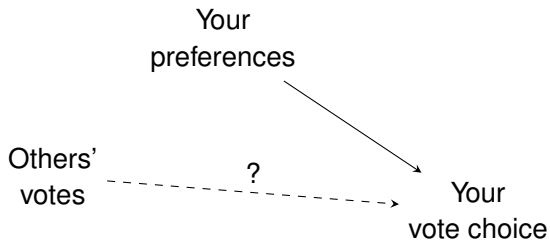- ▶ Conclusions about strategic voting in FPTP also need revisiting.

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Thank you!

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Campaigns, leaders, positions, . . .

Your preferences

Others' votes

?

Your vote choice