

# Ethical voters and the demand for political news

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# Motivation

- Media: main source of political information for most people
- Use this information to make informed voting decisions
- How does competition in the media market affect turnout, media slant, and selection of competent politicians?
- **Addressing these questions we must explain why people demand political news in the first place**

## “Spoiler” (the paper in pills)

- We combine
  - competition in the media market
  - endogenise the demand for political news
  - study of the voting/electoral process
- We obtain that Competition in the media mkt

• has ambiguous effects on turnout

• increases information (more consumption of political news)

• increases the chances of election of the most informed candidate

• *Wahlkampf*

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## Competition and turnout: empirical evidence

- Empirical connection media - politics (DellaVigna & Kaplan 2007 QJE, Enikolopov et al 2011 AER, Gentzkow et al 2011 AER, George & Waldfogel 2006 AER, Oberholzer-Gee & Waldfogel 2009 AER)
- Finds conflicting results as to the effect of competition on turnout:
  - Enikolopov et al (2011): entry of private news channel in Russia had negative effect
  - Gentzkow et al (2011): entries in US local newspaper markets had positive effect

## Existing theory

- Rational choice theory has difficulty explaining why people demand political news:
  - Benefit from being informed: gain from swinging election in favour of better candidate
  - In large elections, individual votes unlikely to be pivotal
- cannot explain the empirically observed relationship
- Two approaches in the theoretical literature on media:
  - People demand news for private purposes (e.g., Gentzkow & Shapiro 2006, Stromberg 2004) → doesn't affect their vote
  - No cost of voting (Chan & Suen 2008) → everybody votes

# Group rule utilitarianism

- Pioneered by Harsanyi (1977, 1980)
- Used by Feddersen and Sandroni (2006, AER) and Coate & Conlin (2004, AER) to develop a theory of ethical voting → explain turnout
- Allows us to link news consumption to voting decision:
  - Each citizen is assumed to behave according to a rule which maximises the group's welfare if followed by all its members
  - Because the group as a whole benefits from its members being informed, can endogenise demand for news
  - Information affects whether and for who citizens should vote → link between media market and turnout

# Basic setting

- Two candidates,  $A$  and  $B$ , with abilities  $w_A$  and  $w_B$
- Two (equally likely) states of the world  $S \in \{A, B\}$ :
  - If  $S = A$ :  $w_A = \bar{w}$ ,  $w_B = \underline{w}$
  - If  $S = B$ :  $w_A = \underline{w}$ ,  $w_B = \bar{w}$
- Three types of citizens,  $i \in \{A, B, I\}$ :
  - Partisans of  $A$
  - Partisans of  $B$
  - Independents ( $I$ )
- Population share of type  $i$  is  $\rho_i$ 
  - Independents:  $\rho_I = \rho \in [0, 1]$
  - Partisans:  $\rho_A = \rho_B = (1 - \rho)/2$
- Citizens do not observe  $S$ , must consume news to find out
- Election decided by majority rule

# Utility from the political outcome

- For a partisan of  $i$ :

$$u_i^V = \begin{cases} w_i & \text{if candidate } i \text{ wins} \\ 0 & \text{if candidate } j \neq i \text{ wins} \end{cases}$$

→ partisans of  $i$  always prefer  $i$  (get no utility from opposing candidate), but *how much* they prefer  $i$  depend's on  $i$ 's ability

- For an independent:  $u_I^V = w_\theta$ , where  $\theta \in \{A, B\}$  is the winning candidate

# Voting costs and winning probabilities

- $\sigma_i$ : share of group  $i$  voting
- Suppose groups  $A$  and  $I$  vote for  $A$ , while group  $B$  votes for  $B$
- Probabilistic voting

$$\Rightarrow \Pr(\theta = A) = \frac{1}{2} + \psi \left( \rho\sigma_I + \frac{1-\rho}{2}(\sigma_A - \sigma_B) \right)$$

- Each citizen has a cost of voting  $\tilde{c}(\rho_i\sigma_i)^\gamma$ , where:
  - $\tilde{c} \sim U[0, \bar{c}]$
  - $\gamma \geq 0$  measures congestion at the ballot box (higher turnout increases waiting times)



# The media market

- There are  $M$  profit-maximising media outlets  $\rightarrow$  maximise audience
- Outlets have perfect info about  $S$
- Full disclosure
- Outlets commits to the political slant  $n$  with which it presents the news:
  - Partisan slant ( $n \in \{n_A, n_B\}$ )
  - No slant ( $n = n_I$ )

## Utility from news consumption

- A partisan's utility from consuming a news outlet with slant  $n \in \{n_A, n_B, n_I\}$  is

$$u_i^N = \begin{cases} \bar{n} & \text{if } n = n_i \\ 0 & \text{if } n = n_I \\ \underline{n} & \text{if } n = n_j \text{ for } j \neq i, j \in \{A, B\}, \end{cases} \quad i = A, B,$$

with  $\bar{n} > 0 \geq \underline{n}$

- Idea: each partisan group has a preferred slant, derives more utility from news closer to its preferred slant
- Independents have no utility *per se* from consuming news, regardless of slant:  $u_I^N(n) = 0$  for all  $n$
- Opportunity cost of consuming news:  $R$  (outside option, e.g. entertainment)

# Ethical behaviour

- Citizens' utility from ethical behaviour: obtain utility  $d > 0$  for “doing one's part”
- Ethical behaviour: follow the rule that maximises the group's welfare, if followed by all others in the group
- A rule comprises
  - a **media outlet to consume**
  - a **threshold for the voting cost**,  $c_i^*$ , below which a citizen is supposed to cast his ballot ( $c_i^*$  defines the level  $\sigma_i$ )
- We assume that  $d$  is sufficiently large to make it worthwhile to behave ethically

## Partisans' voting problem

- Agents follow the rule that maximises their expected payoff given their information on  $S$ :
- Assuming an interior solution, partisans' optimal turnout is

$$\sigma_i(w_i) = \left( \frac{1-\rho}{2} \right)^{\frac{1-\gamma}{1+\gamma}} \left( \frac{w_i \psi}{c} \right)^{\frac{1}{1+\gamma}},$$

where  $w_i \in \{\bar{w}, \underline{w}, w^e\}$

- Clearly,  $\sigma_i(\underline{w}) < \sigma_i(w^e) < \sigma_i(\bar{w})$
- For any  $\gamma > 0$ ,  $\sigma_i(\cdot)$  is concave in  $w$  (intuition: marginal cost of increasing turnout is convex)

### Lemma

*In the presence of congestion at the ballot box ( $\gamma > 0$ ),  $ET_P^0 > ET_P^1$  (Jensen's inequality)*

# Independents' voting problem and turnout

- If independents are uninformed about  $S$ , they do not vote
- If independents are informed, they vote for the better candidate (with ability  $\bar{w}$ ).
- independents optimal turnout is

$$\sigma_I^* = \rho^{\frac{1-\gamma}{1+\gamma}} \left( \frac{(\bar{w} - \underline{w})\psi}{c} \right)^{\frac{1}{1+\gamma}},$$

→ When independents get informed, turnout increases

# Impact of information and competition on turnout: empirical literature

- Conflicting results in the **empirical literature**:  
Enikolopov et al (2011): entry in Russia had negative effect  
Gentzkow et al (2011): entries in US had positive effect

# Impact of information and competition on turnout: our model

- Independents demand news to learn who is better candidate. Do not vote if uninformed → news consumption ↑ turnout
  - Partisans demand news to learn about the importance of winning: gain from their preferred candidate rather than opposing one being elected → news consumption ↓ turnout on average
  - both get informed: which effect dominates depends on the relative size of groups
- Overall effect depends on polarisation of society (relative size of partisans and independents) → in more polarised society, turnout ↓
- Lindqvist & Östling (2010, APSR): rank countries by polarisation: Russia more polarised than US

# The payoff of being informed

- $\Delta_i(\rho)$ : gain from being informed at the voting stage

## Lemma

Partisans  $\Delta_P(\rho) \geq 0$ , which decreases with  $\rho$ .

Independents  $\Delta_I(\rho) \geq 0$ , which increases with  $\rho$ .

Intuition:

- Being informed allows partisans to tailor their group's turnout to the **importance of winning the election**
- Being informed allows independents to determine **which candidate has higher ability** and tilt the odds in her favour
- When  $\rho$  is large, the impact of independents on the election is larger

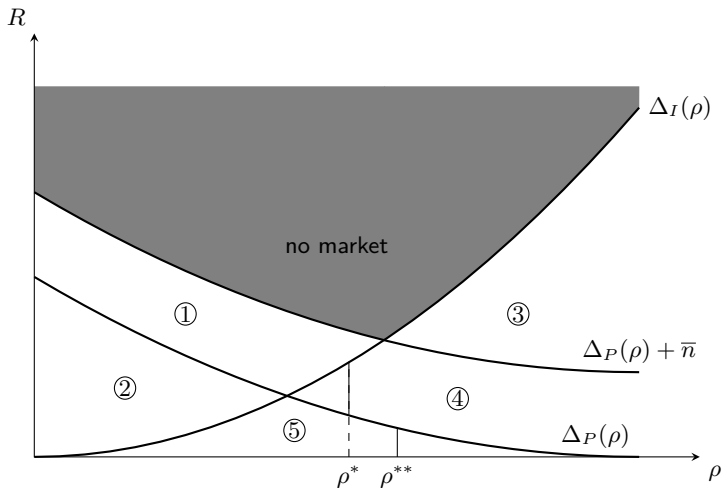


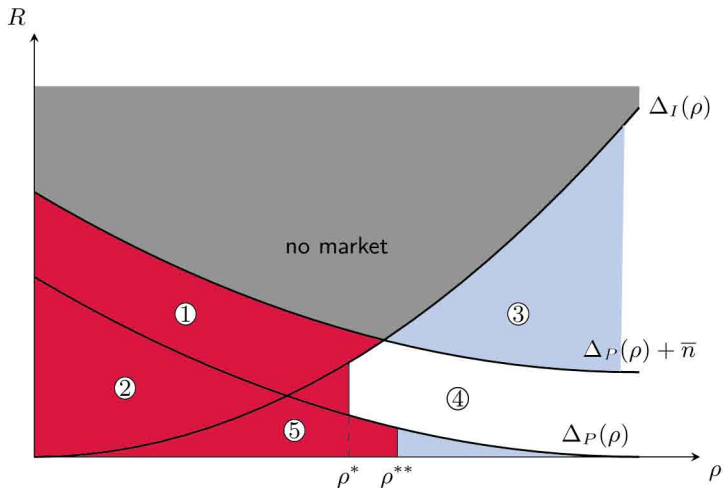
# The news consumption problem

- Ethical citizens consume the news outlet that maximises their group's utility if consumed by everybody else in their group
  - They compare the outside option ( $R$ ) with the utility from politics ( $\Delta_i(\rho)$ ) and from consuming news ( $\max_{n \in \mathcal{N}} u_i^N$ )
- it depends on  $R$  and  $\rho$

# Positioning of media outlets

- Together,  $\rho$  and  $R$  determine the optimal reporting strategy (slant) of media
- An entrant's slant depends on how many eyeballs he can attract
- The set of available slants determines which groups consume news
- The effect of entry on turnout depends on whether entry induces partisans or independents to consume news

News consumption as a function of  $\rho$  and  $R$ 

News consumption as a function of  $\rho$  and  $R$ 

# Market entry and political participation

## Proposition

*Market entry always weakly decreases turnout if  $R \leq \Delta_P(\rho) + \bar{n}$  and one of the following conditions is met:*

- (i)  $R > \Delta_I(\rho)$ , or*
- (ii)  $R > \Delta_P(\rho)$  and  $\rho < \min\{\frac{1}{2}, \rho^*\}$ , or*
- (iii)  $R \leq \Delta_P(\rho)$  and  $\rho < \rho^{**}$ .*

## Proposition

*Market entry weakly increases turnout if  $R \leq \Delta_I(\rho)$  and*

- (i)  $R > \Delta_P(\rho) + \bar{n}$ , or*
- (ii)  $R \leq \Delta_P(\rho)$  and  $\rho > \rho^{**}$ .*

# Conclusion

- We build a framework in which citizens decide to consume news and vote according to a rule that maximises the payoff of their group if followed by all its members
- Media outlets report on the ability of the candidates running for office, and they compete for audience by choosing their slant
- We study the impact of competition on media slant, turnout, and the selection of competent politicians
- Our results can explain empirical evidence showing that entry in the media market can either increase or decrease turnout

# Thank you

For any comment or suggestion, please feel free to contact me:  
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# Expected costs of voting

- Ethical voting rule: cutoff  $c_i^*$
- $\tilde{c}$  being uniform,  $\sigma_i = c_i^*/\bar{c} \rightarrow$  choosing  $c_i^*$  is equivalent to choosing  $\sigma_i$
- Group  $i$ 's expected cost of voting is

$$C_i = \int_0^{c_i^*} \frac{\tilde{c}}{\bar{c}} (\rho_i \sigma_i)^\gamma d\tilde{c} = \frac{c}{2 + \gamma} \rho_i^\gamma \sigma_i^{2+\gamma},$$

where  $c \equiv (2 + \gamma)\bar{c}/2$



# Partisan turnout

- A partisan group's turnout when they do not consume news is

$$ET_P^0 = \left( \frac{\psi}{c} \left( \frac{1-\rho}{2} \right)^2 \right)^{\frac{1}{1+\gamma}} \left( \frac{\bar{w} + \underline{w}}{2} \right)^{\frac{1}{1+\gamma}}.$$

- When a group of partisans consumes news (and thus learns the state of the world), their expected turnout is

$$ET_P^1 = \left( \frac{\psi}{c} \left( \frac{1-\rho}{2} \right)^2 \right)^{\frac{1}{1+\gamma}} \left[ \frac{\underline{w}^{\frac{1}{1+\gamma}}}{2} + \frac{\bar{w}^{\frac{1}{1+\gamma}}}{2} \right]$$

- Jensen's inequality implies  $ET_P^0 > ET_P^1$