Voter Information and Distributive Politics

Benjamin Blumenthal

ETH Zürich

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Why this paper?

- Politics is about "who gets what, when, [and] how" (Lasswell, 1936) and distributive processes are zero sum: one's gains must come at someone else's expense. But why do politicians treat favourably some groups and not others? (Golden and Min, 2013)

- Electoral accountability (Fearon, 1999; Ashworth, 2012) is based on past actions: voters' information then determine their ability to hold politicians accountable (Duggan and Martinelli, 2017) and might allow them to infer politicians' "types", to screen out "bad" politicians and reelect "good" ones.

- However, there is considerable heterogeneity in voters' information about politics: poorly informed masses of voters coexist alongside more informed groups of voters (Delli Carpini and Keeter, 1997; Lupia, 2016).

What I do in this paper

- I build a political agency model of distributive politics with moral hazard and adverse selection.

- I ask:
  1. How can more information for *all* voters affect voters' welfare?
  2. How can more information for *some* voters affect their welfare?
  3. How can it affect other voters' welfare?
  4. Are more informed voters better off than less informed voters?

- Less information for all voters can be better for them through the effect on politicians' incentives.

- More informed voters' ability to communicate and the nature of their informational advantage can significantly matter.

Related literature

- Political agency with moral hazard and adverse selection: early contributions include Coate and Morris (1995) and Fearon (1999), surveyed in Besley (2006), Ashworth (2012), Duggan and Martinelli (2017); similar mechanism in Besley and Smart (2007), Ashworth and Bueno de Mesquita (2014), Fox and Stephenson (2015), Wolton (2019), Blumenthal (2022).

- Pork-barrel spending and distributive politics: Ferejohn (1986), Fearon (2011), Zudenkova (2018), Dixit and Londregan (1996), Dixit and Londregan (1998), Lizzeri and Persico (2001),Gavazza and Lizzeri (2009), Maskin and Tirole (2019), Foster and Warren (2023).

- Information and transparency in policy-making: Lohmann (1998), Prat (2005), Fox (2007), Fox and Van Weelden (2012), Fu and Li (2014), Trombetta (2020), Agranov, Eilat and Sonin (2021).

The case of homogeneously informed voters

Baseline model I - Players and state of the world

- Players: a unit measure of voters, an incumbent, and a challenger.

- The state of the world in period $t \in \{1, 2\}$ is $\omega_t \in \{\underline{\omega}, \overline{\omega}\}$ and $Pr(\omega_t = \overline{\omega}) = \eta$.

  ▶ Good times: if $\omega_t = \overline{\omega}$, a windfall R is available for the office-holder to allocate.

  ▶ Bad times: if $\omega_t = \underline{\omega}$, nothing to allocate.

- Some interpretations of R: money to allocate, amount of resources available to spend on constituency services or policy work, etc...

- Voters' identical strictly increasing & strictly concave utility function is $U(.)$.

- An office-holder's (pure) strategy is a mapping $\Phi : [0,1] \to [0,\infty)$ and an amount r such that

$$0 \leq \int_0^1 \Phi(j)dj + r \leq \mathbb{1}_{\{\overline{\omega}\}}(\omega)R.$$

- Politicians are:

  1. Either benevolent, with probability π: behavioural type, allocates R uniformly to all voters when $\omega_t = \overline{\omega}$ i.e. $\Phi(i) = R \ \forall i$ and $r = 0$.

  2. Or strategic, with probability $1 - \pi$: cares about being in office, to enjoy ego-rents W and (possibly) to divert rents in state $\overline{\omega}$.

- Politicians' types are their private information.

Baseline model III - Information structure

- I consider three information structures:

  1. *Least informed* voters observe only $\Phi(i)$.

  2. *State informed* voters observe $\Phi(i)$ and ω_t.

  3. *Most informed* voters observe $\Phi(.)$ and ω_t.

- Rent extraction is revealed prior to the election with probability $\rho(r)$. I make some technical assumptions on $\rho(.)$: e.g. convex and increasing until the probability reaches 1.

- Interpretations: accountability journalism, judicial oversight...

- Politicians know what voters observe.

Baseline model IV - Timing

1. Nature draws the politicians' types and ω_1.

2. The incumbent allocates R if $\omega_1 = \overline{\omega}$.

3. Voters observe $\Phi(i)$, possibly more depending on the information structure.

4. An election takes place, voters vote sincerely.

5. Nature draws ω_2.

6. The second period office-holder allocates R if $\omega_2 = \overline{\omega}$.

- Solution concept: (Pure Strategy) Perfect Bayesian Equilibrium.

- I select the vote share maximising equilibrium(a) when there are multiple payoff-equivalent equilibria for a strategic incumbent.

(Standard) Second period

- Regardless of the informational structure, the following two lemmata hold:

Lemma 1

In equilibrium a strategic second period office-holder extracts R in good times.

▶ No reputational concerns for a second period office-holder.

Lemma 2

The incumbent is reelected if and only if half of the voters have a posterior belief of the likelihood that he is benevolent that is greater than or equal to the prior probability that the challenger is benevolent.

▶ Follows from the previous lemma, sincere voting, and majority voting.

The case of homogeneously *most informed* voters

Proposition 1

Suppose voters are most informed. In the essentially unique equilibrium, a strategic incumbent, in good times:

1. *Allocates R uniformly to all voters if $W > (1-\eta)R$, a pooling equilibrium.*
2. *Extracts R if $W < (1-\eta)R$, a separating equilibrium.*

▶ Pooling is the only way for a strategic incumbent to be reelected. He compares its cost (forgoing instantaneous rents) to its benefits (ensuring reelection and a chance at future rents).

- When voters aren't *most informed*, reelection is possible in good times with partial rent extraction.

- The optimal level of partial rent extraction, r^*, trades off first period gains (more rents) with second period expected losses (lower probability of reelection).

- I call an equilibrium with partial rent extraction a *fooling* equilibrium.

The case of homogeneously *state/least informed* voters II

Definition

$r^* = \operatorname{argmax}_{r \in (0, \frac{R}{2}]} \left[r + (1 - \rho(r))(W + \eta R) \right]$; $\Lambda(r) = \frac{r - r^*}{\left[\rho(r) - \rho(r^*) \right]} - \eta R$; and $\kappa^* = \frac{R - r^*}{R}$.

Proposition 2

In a fooling equilibrium, a strategic incumbent, in good times, allocates R uniformly to a share κ^* of voters and 0 to a share $1 - \kappa^*$ of voters. A fooling equilibrium exists and is essentially unique:

1. *When voters are state informed and $W > \Lambda(R)$, or*
2. *When voters are least informed and $W > \Lambda(r) \ \forall r \in \left(\frac{R}{2}, R \right]$,*

- In what follows I assume that:
  - $W > \Lambda(R)$ if a majority of voters are *state informed*,
  - $W > \Lambda(r) \ \forall r \in \left(\frac{R}{2}, R \right]$ if a majority of voters *least informed*.

Comparing welfare I

- Since all voters are *ex-ante* identical, I use voters' *ex-ante* aggregate welfare as a measure of voters' welfare.

- Two important concepts:
  1. Control: how much a strategic incumbent distorts his first period action away from his favourite action towards actions more favourable for voters (in good times).

  2. Screening: the possibility for voters to use the election as a tool to screen a strategic incumbent from a benevolent one using the information they get (in good times).

- There is a trade-off between screening and control in the different equilibria:

  ▸ Pooling: perfect control but no screening.

  ▸ Separating: no control but perfect screening (conditional on $\omega_1 = \overline{\omega}$).

  ▸ Fooling: partial control and partial screening.

- Provided that the partial control and partial screening effects are sufficiently strong, the fooling equilibrium can welfare dominate the pooling equilibrium and/or the separating equilibrium.

Formal statement

The case of heterogeneously informed voters

- A share $\lambda \in (0, \frac{1}{2})$ of voters is strictly more informed than other voters. Three possible cases:

    1. A few *state informed* voters and a majority of *least informed* voters.

    2. A few *most informed* voters and a majority of *least informed* voters.

    3. A few *most informed* voters and a majority of *state informed* voters.

- Recall that I assume that:

    - $W > \Lambda(R)$ if a majority of voters are *state informed*,

    - $W > \Lambda(r) \; \forall r \in (\frac{R}{2}, R]$ if a majority of voters *least informed*.

- With heterogeneously informed electorates, I ask:

  1. Who's better off, more informed voters or less informed voters?

  2. How can more information for *some* voters affect voters' welfare?

- I consider two settings:

  1. Heterogeneously informed voters without communication, with the same timing as in the baseline model.

  2. Heterogeneously informed voters with more informed voters able to costlessly communicate with less informed voters prior to the election.

Observation 1

If more informed voters are state informed and communication is impossible, all voters are equivalent for a strategic incumbent.

- Both *state informed* and *least informed* voters can be fooled by a strategic incumbent.

    ⇒ Fooling equilibrium, as under a homogeneously *least informed* electorate.

    ⇒ Informational differences between voters have no welfare consequences.

Proposition 4

If more informed voters are most informed and can't communicate with less informed voters, less informed voters' average ex-ante welfare is strictly higher than more informed voters' average ex-ante welfare.

- The essentially unique equilibrium is fooling.

- More informed voters won't vote for a strategic incumbent in a fooling equilibrium:
  - $\Rightarrow$ More informed voters are strictly worse off than less informed voters, who are a strategic incumbent's priority.

Proposition 5

If more informed voters are state informed and can communicate costlessly with less informed voters, more informed voters' average ex-ante welfare is strictly higher than less informed voters' average ex-ante welfare.

- The essentially unique equilibrium is fooling.

- More informed voters can vote for a strategic incumbent that extracts some rents & can transmit damning information on a strategic incumbent if they aren't targeted:

  - More informed voters are strictly better off than less informed voters: they are a priority for a strategic incumbent.

Proposition 6

If more informed voters are most informed and can communicate costlessly with less informed voters, the equilibrium is the same as under a homogeneously most informed electorate: the average welfare of more informed voters and less informed voters are equal.

- Standard commitment problem in voting strategies: *most informed* voters will not vote for an incumbent who extracted rents (only screening matters, *à la* Fearon, 1999).

- But the main issue is the commitment problem in communication strategies: *most informed* voters can't commit not to report rent extraction.

  ⇒ Same equilibrium as under a homogeneously *most informed* electorate.

  ⇒ The average welfare of more informed voters and less informed voters are equal.

More from the paper

Taking stock of these results, in the paper I further discuss:

- The impossibility of collusion due to a lack of commitment power in communication strategies.

- Some interactions between information, the ability to communicate, and relative welfare.

- Rationales for information acquisition in the model, with an emphasis on a supply side rationale for the ownership of media outlets.

- A connection between my results and a form of (beneficial) populism for the masses.

- The impact of watchdog voters or informational campaigns on electoral accountability.

- The links between fooling equilibrium and winning coalitions.

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Comparing welfare III

Proposition 3

1. If $W > (1 - \eta)R$ and $\kappa^* + \rho(r^*) \times \pi \times \eta > 1$, *voters are better off when state or least informed than when most informed.*

2. If $W < (1 - \eta)R$ and $\kappa^* + \rho(r^*) \times \pi \times \eta > \eta \times \pi$, *voters are better off when state or least informed than when most informed.*

- κ^* - share of voters who are allocated R in a fooling equilibrium.
- $\rho(r^*)$ - endogenous probability of revelation of rent extraction given r^*
- π - prior probability of a benevolent politician
- η - probability of $\omega_t = \overline{\omega}$