Greed as a Source of Polarization

Igor Livshits
Philadelphia Fed,
BEROC

Mark L.J. Wright
Minneapolis Fed,
NBER

August 26, 2017

The Question

Q: Why don't agendas of competing candidates converge?

Compelling answer:

- Campaign contributions help win elections
  - (uninformed) voters can be influenced by spending
- Candidates cater to interest groups (lobbies)
  - Campaign contributions lead to polarization
- Proposed by Baron (1994) and shown to work
  - for particularistic policies
  - but not collective policies
  - Relative contributions unaffected by proposed policies

The Intuition

Strengthen the mechanism:

- Free-riding among contributors (lobbies)
  - Private provision of a public good
- Only the most extreme lobbies contribute
- Extreme agendas maximize contributions

The Surprise

Strengthen the mechanism:

- Free-riding among contributors (lobbies)
  - Private provision of a public good
- Only the most extreme lobbies contribute
- Extreme agendas maximize contributions

BUT

- Strategic behavior of candidates kills this intuition
  - Moving towards the middle lowers one's contributions
  - But it lowers opponent's contributions even more!
- Result: Agendas converge in equilibrium

The Surprise

Strengthen the mechanism:

- Free-riding among contributors (lobbies)
  - Private provision of a public good
- Only the most extreme lobbies contribute
- Extreme agendas maximize contributions

BUT

- Strategic behavior of candidates kills this intuition
  - Moving towards the middle lowers one's contributions
  - But it lowers opponent's contributions even more!
- Result: Agendas converge in equilibrium

Cheap fix:

- Make candidates care about the contributions per se

The Second Surprise

- Preferences of contributor $j \in [0,1]$ over policies a

$$V_j(a) = -|a - j|^{\alpha}$$

- Standard assumption: $\alpha > 1$
  - Extreme contributors care the most
  - Only **extreme** interest groups contribute
  - **But** Polarization is limited

- Alternative assumption: $\alpha < 1$
  - "Targeted" contributors care the most
  - Only "**targeted**" interest groups contribute
  - **But** Polarization is complete
  - Reason: Contributions to the two candidates are the same
  - Ironically, this corresponds to Baron (1994)

The Simple Model

- Baron (1994) without informed voters
  - The case of "collective policies"
- One-dimensional policy space: $[0,1]$
- Two candidates $i = 1,2$ commit to policies $a_1 \leqslant a_2$
  - No preferences over policies
  - Just preference for winning the elections
- Then interest groups $j \in [0,1]$
  - make *voluntary* contributions c
  - to maximize expected payoffs

$$u_j(a,c) = E\left(-|a-j|^{\alpha}\right) - \phi c$$

- Probability of winning

$$p_i = \frac{C_i}{C_i + C_{-i}}$$

Equilibrium

- Subgame Perfect Equilibrium
  - solve by backward induction
- Equilibrium contributions (taking agendas as given)
  - only by interest groups j_i with largest gain

$$\Delta = V_j(a_i) - V_j(a_{-i})$$

  - contribution to i solves

$$\frac{C_{-i}}{(c_i + C_{-i})^2}\Delta_i = \phi$$

Equilibrium

- Start with the standard assumption: $\alpha > 1$
- Extreme contributors care the most: $j_1 = 0, \quad j_2 = 1$
- Their gains from policies:

$$\Delta_1 = a_2^\alpha - a_1^\alpha, \qquad \Delta_2 = (1 - a_1)^\alpha - (1 - a_2)^\alpha$$

- **Key:** Increasing a_1 decreases Δ_2 more than Δ_1.

- **Equilibrium:** Policies converge to mid-point.
- No contributions. No polarization.

Greed

Simplistic approach:

- Allow candidates to consume fraction γ of contributions
  - and assume they care about consumption, not election
- Implied probability of electoral victory:

$$p_i = \frac{(1-\gamma)C_i}{(1-\gamma)C_i + (1-\gamma)C_{-i}}$$

- Contribution decisions are unaffected
  - as lobbies care not about the total spending
  - but about the relative spending of the candidates

- Result: Complete polarization in equilibrium

Greed

Micro-founded approach:

- Candidates choose how much to consume out of contributions
- to maximize

$$\max_{S_i \in [0, C_i]} \ln(C_i - S_i) + p(S_i, S_{-i})W$$

- In equilibrium, candidates spend the same fraction of C
- Contribution decisions are unaffected

- Result: Some policy divergence with standard assumption $\alpha > 1$
- Polarization decreases in W

Alternative Assumption

- Now consider the case of $\alpha \leqslant 1$
- Targeted contributors care the most: $j_1 = a_1, \quad j_2 = a_2$
- Their gains from policies:

$$\Delta_1 = (a_2 - a_1)^\alpha, \qquad \Delta_2 = (a_2 - a_1)^\alpha$$

- **Key:** Policy choices affect contributions, not outcomes.
- **Equilibrium without greed:** Anything goes.
- **Equilibrium without greed:** Complete polarization.

Implications

- Contributions are greater when (ceteris paribus) candidates are more extreme
  - Poole and Romer (1985)

- Should corrupt countries be more polarized?
  - Not necessarily
  - If the payoff from being in office is higher
  - Then polarization is lower

Summary

- Campaign contributions for collective policies are
  - privately provided public goods
  - provided by only one group (per candidate)
- Candidate's choice of policy affects contributions
  - both one's own and the opponent's
- The effect on opponent's contribution dominates
  - when candidates care only about winning
- Result: Policy convergence
  - Not to *median* voter (or contributor)
  - But to midway between the two extreme contributors
- If candidates care about contributions *per se*
  - Policies diverge

Baron (1994)

- Campaign contributions lead to polarization
  - For particularistic policies
  - But not collective policies
    - Relative contributions unaffected by policies
- All interest groups contribute in Baron (1994)
- We endogenize interest group participation
  - Private provision of public good
- Candidate's choice of policy *does* affect contribution
- But that only strengthens the policy convergence result
  - which is not quite the median voter result

- Polarization for collective policies
  - If candidates get direct benefit from contribution
  - Absolute contributions are always affected by policies