Signaling Character in Electoral Competition

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Motivation

- Benchmark model of electoral competition: Hotelling-Downs

$$\Longrightarrow \text{ Policy convergence } (\sim \text{MVT})$$

- In practice, elections typical feature policy divergence
  - e.g. Poole and Rosenthal (Oxford 1997)
    - also shows persistence of positions
    - some support for one dimensional policy space

- Fundamental question: Why?

Motivation

"Americans believe Mr. Bush **himself honestly believed** Saddam was a threat ... [voters] can tell **he is not doing it all by polls** and focus groups ... **You can agree or disagree with him**, but it is hard to doubt his guts, his seriousness, and his commitment ... This is why **in presidential elections character trumps everything**."

– Wall Street Journal editorial, April 2004

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- Policy divergence
- Voters can rationally select less-centrist candidates
- Various other implications

Basic Idea

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- Candidates *without* character are strategic, office-motivated
  - "Those are my principles. If you don't like them I have others." — Groucho Marx

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- Policy position becomes a signal for character

Suggestive Example

- 1999 Republican Primary in Iowa, John McCain:

  "I'm here to tell you the things that you dont want to hear ... [ethanol subsidies are bad]"

Related Literature

- Stokes (1963): valence in elections
- Banks (1990) and Callander & Wilkie (2003): signaling in elections
  - Their platforms are non-binding
  - We focus on commitment, but touch on lack of commitment
- Callander (2004): closest to ours
  - His candidates are policy-motivated
  - Our candidates are procedurally-motivated
- Policy divergence papers
  - Palfrey (1984)
  - Groseclose (2001); Aragones & Palfrey (2002)
  - Calvert (1985) and Wittman (1977)

Model: Candidates

- Policy space, $X = [0, 1]$
- Two candidates, A and B, each commits to policy, $x^i \in X$
- With prob. $b \in (0, 1)$, a candidate has character
  - "Non-strategically" chooses x^i from full support density $f(x)$
- With prob. $1 - b$, a candidate lacks character
  - Strategically chooses x^i to maximize prob. of winning

Model: Voters

- Voters have preferences over policy *and* character
- Policy preferences are as usual: single-peaked and smooth
  - $u(x, v)$ for voter with ideal point v
  - Median voter ideal point, $m \in (0, 1)$, $\mu(x) := u(x, m)$
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- Every voter gets an added utility of $\lambda > 0$ if the elected candidate has character
- Thus, median voter's expected utility from candidate i is

$$\alpha^i(x^i) := \mu(x^i) + \lambda \left[Pr \left(i \text{ has character } | x^i \right) \right]$$

Model: Game

1. Nature chooses character for each candidate (i.i.d draws)

2. Candidates choose positions
   - Strategy for i is CDF G^i *when strategic*
     (When non-strategic, i uses density f)

3. Voters observe positions and vote sincerely
   - Thus, candidate i wins if $\alpha^i(x^i) > \alpha^j(x^j)$
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- Perfect Bayesian equilibrium
  - Beliefs, $\varphi^i(x^i)$, derived via Bayes rule where possible
  - Mutual best responses for A and B given beliefs

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Proof. If not, discontinuous character inference $\implies$ profitable deviation. $\square$

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  - We prove that strategies must be densities in equilibrium

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$$\Longrightarrow \alpha^* = \mu(x) + \lambda\frac{bf(x)}{bf(x) + (1-b)\,g^*(x)}$$

Equilibrium: Result

Theorem. There is a unique equilibrium: both candidates use the same strategy, G^*, with density

$$g^*(x) = \max\left\{0, \frac{bf(x)}{1-b}\left[\frac{\lambda}{\alpha^* - \mu(x)} - 1\right]\right\}$$

where $\alpha^* \in (\mu(m), \mu(m) + \lambda)$ is the unique constant such that $\int_x g^*(x)dx = 1$.

Proof. Existence from intermediate value theorem. Uniqueness is more involved. □

α^* is the median voter's utility from strategic candidates.

Equilibrium Properties

- Basic forces: providing policy utility pulls strategic candidates to the center; signaling character pushes them away.
- Generates randomized positions & policy divergence.
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- Basic forces: providing policy utility pulls strategic candidates to the center; signaling character pushes them away.
- Generates randomized positions & policy divergence.
- Ex-postness property: robust to timing, spying, etc.
- Median voter indifferent over all platforms in support of G^*. Why? $\varphi^*(\cdot)$ is single-troughed around m. (Key testable prediction.)
- Hence, tied elections except when a non-strategic candidate of extreme platform occurs.

Comparative Statics

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- As $b \to 0$, $G^* \to m$ in distribution, but $Supp[G^*] \to \{x : \mu(x) + \lambda \geq \mu(m)\}$.
- As $b \to 1$ or $\lambda \to 0$, $Supp[G^*] \to \{m\}$.

Ex-ante Asymmetries

- Analysis goes through if b and $f(x)$ are instead candidate-specific b^i and $f^i(x)$ (think: parties)
  - Obvious construction remains an ex-post equilibrium
- But, elections no longer tied even within support G^i
  - One candidate can win for sure if strategic
  - e.g. same $f(x)$ for both candidates, but $b^A > b^B$
- Equilibrium may not be unique, but if not, then one of the candidates always wins when strategic ("outcome uniqueness")

Richer/Endogenous Preferences

- Preference for character can depend on platform and ideal point

$$U(x^i, v) \equiv \lambda(x^i, v) \Pr\left(c^i = 1 \middle| x^i\right) + u\left(x^i, v\right)$$

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- Assume $\lambda(v, v) > 0$ for all v, and $\lambda_{12}(x, v) \geq 0$ for all x, v.
  - But can even be negative far from v
- Then, so long as $\max_{x,v} |\lambda_2(x, v)|$ is sufficiently small, the equilibrium construction goes through

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- Tied election can be reduced by candidate uncertainty over median location, as usual
- Analysis can also be used to construct full support of other signaling where all candidates are strategic
  - weight on unobservable trait must be large enough
  - no longer unique equilibrium

A Model of Primaries

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- Discrete policy space: -1, 0, and 1
- Two parties: L and R
- Each party has two candidates in primary; primary winners compete in general election

A Model of Primaries

- L party voter has ideal point -1, with preference $-1 \succ 0 \succ 1$
- R party voter is symmetric
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- Each candidate has prob $b > 0$ of character
  - L party candidate with character takes position drawn from some distribution over $\{-1, 0\}$
  - symmetric for R party candidate with character, over $\{0, 1\}$

A Model of Primaries

- Assume forward-looking primary voters
  - Willing to elect moderates in primary if it improves prospects in the general election
- Focus on some simple but interesting symmetric equilibria

Primaries: Feedback Effects

Various forces at play for strategic candidates:

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Various forces at play for strategic candidates:

- Extreme policies myopically preferred in primary, but could hurt in general election (which feeds back into primary prospects)
- If one party selects extremists, increases preference for extremists in the other party
  - since they are less likely to lose in the general election
- can create self-fulfilling prophecy

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- Nave Policy Preference
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- General Election Indifference
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  - Randomization in general election
- Centrist Dominant
  - Moderates preferred in primary and general

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- Benchmark: Without character ($b = 0$), then Centrist Dominant eqm. exists
- Under convex preferences and the presence of character ($b > 0$),
  - Centrist Dominant equilibria do not exist
  - Both Naive Policy Preference and General Election Indifferent equilibria can exist
- Therefore, character matters
- It controls the inference when an extremist runs, under the hypothesis that centrists win

Conclusion: Summary

- Main innovation: character
  - Some candidates have it and are principled about platforms
  - Some don't and chooses platforms to win office
  - Voters like it, ceteris paribus
- Results in policy divergence (MVT failure)
- Rich set of implications
- Striking effects in primaries

Conclusion: Future Research

- Endogenous candidate selection
- Political hierarchies
- Dynamics

... some of this is in progress