

# Recreating Market Conditions for Vote-Selling and Vote-Buying in the Lab: The Chilean Case

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## Motivation: Vote-Buying Literature Forgets About Vote-Sellers

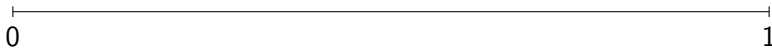
**Clientelism:** “the distribution of rewards to individuals or small groups during elections in contingent exchange for vote choices” (Nichter, 2014).

- The clientelism literature has focused primarily on vote-*buying* (parties buying votes in exchange of electoral support).
- Unfortunately, we are rather ignorants about vote-*sellers*.
- ★ **Supply and demand story:** Do parties target likely voters? Why? At what price? Under what conditions do sellers sell their votes?

# Plan for Today

1. Formalize our theory and mechanisms.
2. Explain experimental design.
3. Feedback!

# Downs (1957)



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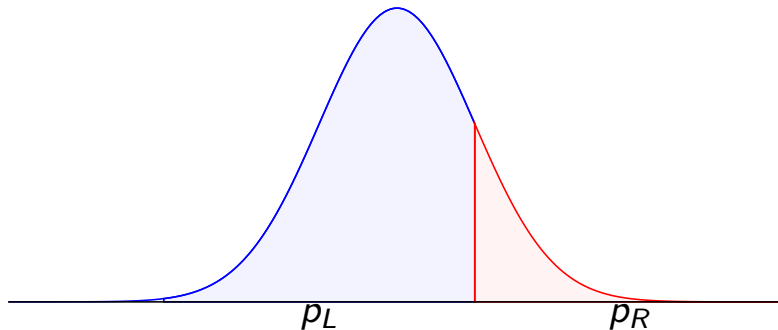
# Downs (1957)



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## Downs (1957)





## The Model

- $n$  voters, each citizen  $i$  has an ideal point  $x_i$  which is an *iid* draw from an uniform distribution  $\Gamma = \{1, 2, \dots, 100\}$ .
- When policy  $\gamma$  is implemented, payoffs of citizen  $i$  are given by  $u(D, x_i, \gamma) = D - |x_i - \gamma|$ .
- Two candidates (“left-wing” and “right-wing”). Each represents a policy which is an *iid* draw from an uniform distribution over  $\gamma_L \in \{1, \dots, 50\}$  ( $\gamma_R \in \{51, \dots, 100\}$ ).
- There are  $n_L$  voters.
- Both parties negotiate with only one of these  $n$  voters who are randomly selected from the total population.

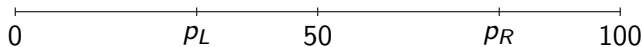
## The Model

- Each candidate has a budget ( $B$ ) that they can use to buy votes.
- Profits of party  $i$  are given by,

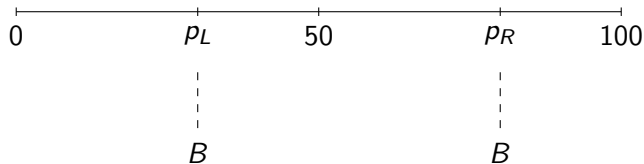
$$\pi_i(W, e_i, s_i) = W \cdot e_i + (1 - s_i \cdot a_j) \cdot B$$

where  $W$  ( $W \geq B$ ) is a constant that represents how much each party values winning the election,  $e_i = 1$  if party  $i$  wins the election, 0 otherwise,  $s_i$  is the fraction of  $B$  that the party offers to voter  $j$  who can accept the offer ( $a_j = 1$ ) or not ( $a_j = 0$ ).

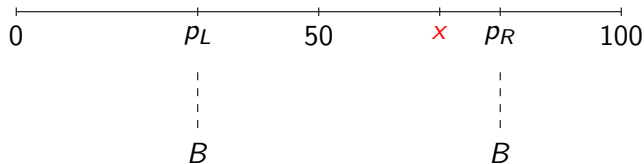
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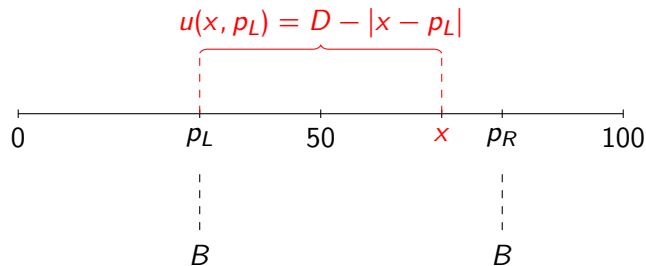
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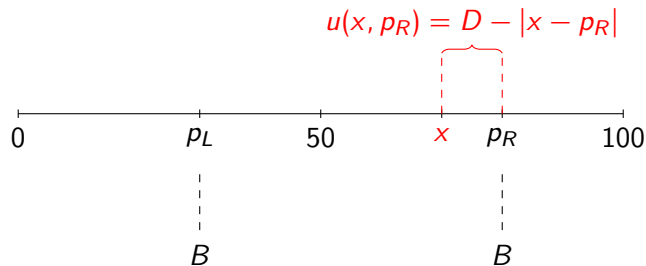
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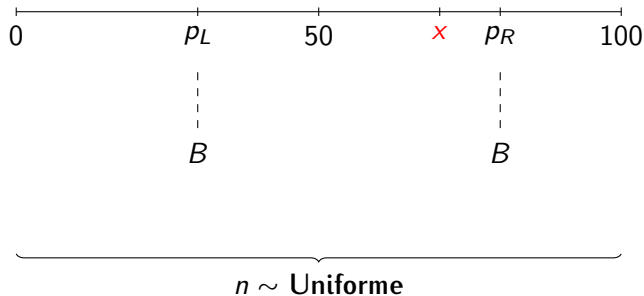
## The Model



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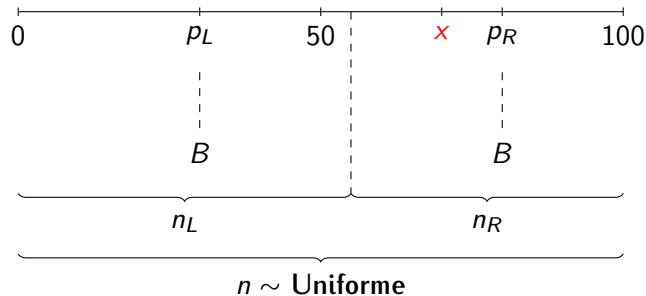


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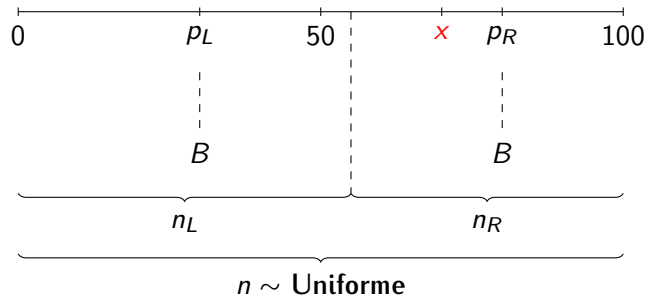




# The Model



# The Model



## Timing

- At the beginning of the game  $n$  voters and two political parties are randomly located on their respective ideal points: voters along  $\Gamma$ , and payoff relevant information is revealed.
- **Vote-buying Case**
  - Each party simultaneously decides if making an offer to the voter.
  - The voter decides if to take the offer (or which one, if there are two offers).
  - Voter casts a ballot; if the voter accepts a party's offer, he should vote for that party.
- **Vote-selling Case**
  - Voter may privately proposes a certain amount to each party in exchange for his vote.
  - Parties decide if to pay or not the offer.
  - Voter decides which one to accept, if any.
  - Voter casts a ballot; if the voter accepts a party's offer, he should vote for that party.

## Equilibrium in Vote-Buying Case

- Parties only have incentives to negotiate with a voter  $i$  if he is the pivotal voter, this means:

$$|n_L - n_R| \leq 1 \qquad i \in \max\{n_L, n_R\}$$

- Notation:  $i^* \in \{L, R\}$  the preferred party of the voter, and  $-i^*$  the other party.
- If the voter is pivotal, the less preferred party ( $-i^*$ ) has incentives to offer him a certain amount  $m_{-i^*}$  such that:

$$\begin{aligned} m_{-i^*} &\geq u(D, x_i, \gamma_{i^*}) - u(D, x_i, \gamma_{-i^*}) \\ &= (D - |x_{i^*} - \gamma_{i^*}|) - (D - |x_{i^*} - \gamma_{-i^*}|) \\ &= |x_{i^*} - \gamma_{-i^*}| - |x_{i^*} - \gamma_{i^*}|. \end{aligned}$$

## Equilibrium in Vote-Buying Case

- Parties want to win the election at a minimum cost, in equilibrium  $m_{i^*}^* = 0$  and  $m_{-i^*}^* = |x_{i^*} - \gamma_{-i^*}| - |x_{i^*} - \gamma_{i^*}|$ .
- The pivotal voter is indifferent between both political parties.
- Two Nash Equilibria,
  - $\{(m_{i^*}^*, m_{-i^*}^*), \text{Accept offer} - i^*\}$
  - $\{(m_{i^*}^*, m_{-i^*}^*), \text{Reject offer} - i^*\}$

## Equilibrium in Vote-Selling Case

- The voter has incentives to set the highest price each party can pay (this is given by  $B$ ).
- The voter may swing towards party  $-i^*$  only if budget is large enough to compensate for losses if voting for his less preferred policy ( $B > |x_{i^*} - \gamma_{-i^*}| - |x_{i^*} - \gamma_{i^*}|$ ).
- Note that if both parties accept to pay  $B$  to the voter, he will accept the offer of  $i^*$ .

## Equilibrium in Vote-Selling Case

- Then the parties,

		$-i^*$	
		Accept	Reject
$i^*$	Accept	$W, B$	$W, B$
	Reject	$B, W$	$W + B, B$

- Nash Equilibria:  $\{(B, B), (\text{Accept}, \text{Accept}), \text{Accept offer } i^*\}$

# Experimental Design

## Parts:

1. **Vote-buying:** **parties** are first players (get out and buy votes, if needed).
2. **Vote-selling:** **voters** are first players (get out and sell votes, if needed).



# Experimental Design

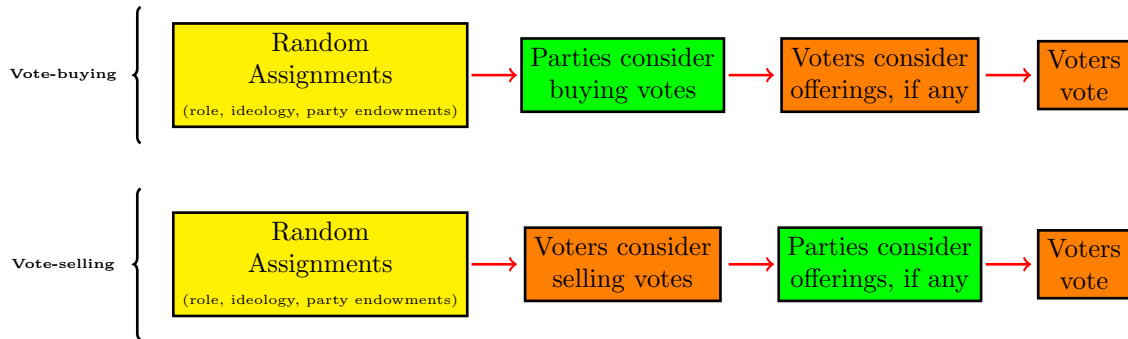
## Parts:

1. **Vote-buying:** **parties** are first players (get out and buy votes, if needed).
2. **Vote-selling:** **voters** are first players (get out and sell votes, if needed).

For both parts, the following **stages**:

1. Random assignments: role  $(P_a, P_b, V_{\frac{1}{3}}, V_{\frac{1}{5}})$ , “ideology,” “party endowments.”  
**Games are played among three subjects *always*: two parties, one voter.**
2. buying/selling **offers**.
3. buying/selling **choices**.
4. Election: [**V**: if her party wins, she wins \$], [**P**: if he wins the election, he wins \$].

## Experimental Flow



## Caveats

1. **Ideology:** voters “lean” towards a party based on the amount of points received if party wins the election. Not really “ideology.”
2. **Party endowments:** fixed. *Parties face different relative vote-buying costs depending on party-voter distance.* Proxy of “randomized” party endowment.
3. **Relative importance of voter is randomized.** Voters are told they represent  $\frac{1}{3}$  or  $\frac{1}{5}$  of voters (randomized & public knowledge).

## Comparative Statics: Ideology

- Downsian paradigm is unidimensional: left-right continuum (policy-oriented).
- We add some more complexity: a non-policy factor (vote-selling is *not* policy-oriented, Kitschelt 2007).
- Research question: **What's the tipping point at which voters stop caring about ideology, and start selling their votes?**
- ★ Ideology given by party-voter spatial distance (randomized).

## Comparative Statics: Competitiveness

- Competitive authoritarian regimes survive not due to electoral fraud (Levitsky and Way 2010).
  - They survive because of the incumbent's capacity to mobilize a large mass of supporters, discouraging likely opposers (Magaloni 2008).
  - Research questions:
    1. At which point do parties feel encouraged and start buying votes?
    2. At which point do parties feel discouraged and abandon the electoral race, not even buying votes?
- ★ Competitiveness given by  $[\frac{1}{3}, \frac{1}{5}]$  voter types (randomized).

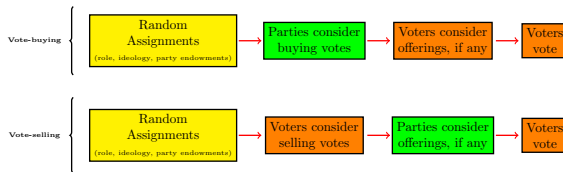
## Comparative Statics: Endowments

- Literature won't give a definitive answer: Parties with more resources buy votes at higher prices (Bahamonde, 2018) or not (Szwarcberg, 2013).
- **Ultimately**, the question is: Does *expensive clientelism* exist?
- Research question: **Do wealthier parties buy more votes?**
- *Remember caveat: not "really" randomized. Proxy.*
- ★ Relative party purchasing power varies according to party-voter spatial distance.

## Comparative Statics: Targeting

- Literature won't give a definitive answer:
  - *Do parties target own supporters (since it's cheaper)?*  
(Cox and McCubbins)
  - *Do parties target unlikely voters (otherwise it's a waste)?*  
(Stokes).
- Research question: **Who do political parties target? Own? Unlikely?**
- ★ Own/Unlikely are given at random.

## Comparative Statics: Sequence



- Research question: Does being the first one in making an offer matter? When? How?



## Feedback Wanted

