# Electoral Risk and Vote Buying, Introducing Prospect Theory in the Experimental Study of Clientelism

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First things first...

**Vote buying**: distribution of private rewards to individuals during elections in exchange for electoral support (Nichter, 2014).



## Vote-Buying Literature Builds on the Wrong Framework

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Statistical Analyses

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- We contest these answers. Explain: traditional clientelism research has failed to answer these questions because it has a wrong understanding about the party's decision-making process under risk.

Statistical Analyses

Discussion DOO Appendix

#### Milestones

• Motivate the problem: vote buying literature is purely based on the Expected Utility Theory (EUT) (von Neumann and Morgenstern).

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- Feedback wanted!

#### Argument

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•••
Argument

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- ✓ Are probable winners—risk-averse in the domain of gains.
- √ Have experienced losses in the past (sunk costs)—risk-seeking in the domain of losses.

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  - 1. Clientelist Targeting.

The Problem

2. Political Contestation.

heory 000 Formal Model

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#### Not Clear Who Clientelist Parties Target

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- Some state "that our knowledge of who parties target remains incomplete."
  - Carlin and Moseley (2015).
- We contend that this is a *very* important question, yet one that the literature has *failed* to answer.

# Not Clear The Role of Political Contestation on Vote Buying

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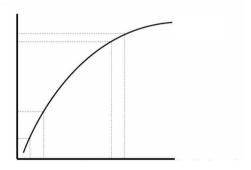
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- However, some find very high levels of vote-buying in uncontested elections.
   Gonzalez-Ocantos, Jonge, et al. (2012).
- Why would a party buy such a massive amount of votes in a safe and uncontested election?

# Wrong Understanding of Decision-Making Process under Risk

#### Change from traditional focus (EUT):

- Losses and gains affect in a comparable way.
- Parties focus only on absolute levels of utilities.



Changing the starting point

# Wrong Understanding of Decision-Making Process under Risk

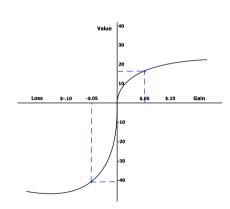
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#### To one based on Prospect Theory

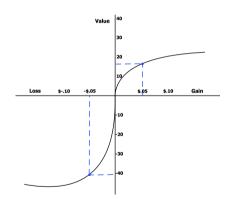
(Kahneman and Tversky, 1979):

- 1. Reference dependence.
- 2. Likelihood dependence.

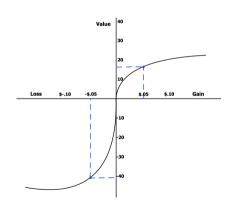


#### Prospect Theory

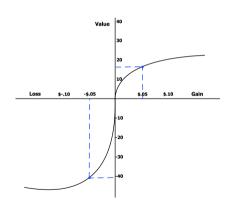
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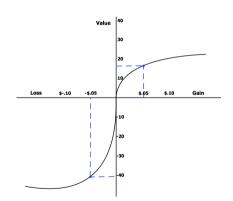
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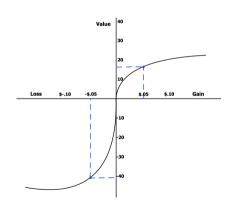


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  - changes of wealth, rather than final asset positions.
  - √ sunk costs do matter.

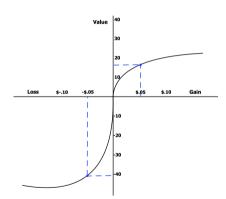


# Prospect Theory

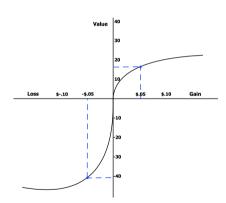
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- Likelihood dependence. The asymmetrical curvature of the likelihood does influence decisions,
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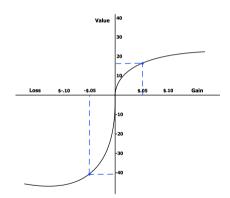


- Likelihood dependence. The asymmetrical curvature of the likelihood does influence decisions,
  - ✓ Individuals are risk-averse in the domain of gains.
  - ✓ Individuals are risk-acceptant in the domain of losses.



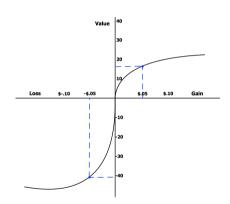
# Prospect Theory: Implications for Decision-Making

 Overweighting: in the domain of losses, the convexity of the function encourages risk-seeking behaviors by exaggerating the probabilities of unlikely losses.



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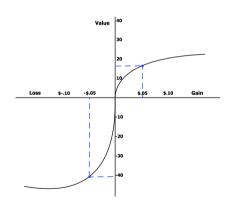
- Overweighting: in the domain of losses, the convexity of the function encourages risk-seeking behaviors by exaggerating the probabilities of unlikely losses.
- Underweighting: in the domain of gains, the concavity of the function encourages risk aversion by undervaluing the probability of success.



# Prospect Theory: Implications for Vote-Buying

### Vote-buying will be higher when parties,

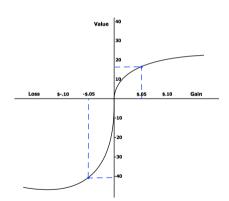
 Are probable winners: parties will exaggerate the small probability of losing the election (risk aversion).



# Prospect Theory: Implications for Vote-Buying

#### Vote-buying will be higher when parties,

- Are probable winners: parties will exaggerate the small probability of losing the election (risk aversion).
- 2. Have experienced losses in the past (sunk costs): alter the reference point, making vote-buying an attractive strategy (risk-seeking).



Formal Model

### A Formal Model of Vote-Buying

• Formal models can help experimentalists determine which theoretical settings and equilibria are most relevant to a particular causal hypothesis.

McDermott (2002), Aldrich and Lupia (2011), Barberis (2013).

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 We developed a vote-buying game within the Downsian-"spatial" paradigms (EUT).

Downs (1957), Enelow and Hinich (1990), Plott (1991).

 The idea is to test the descriptive accuracy of the game-theory model in an experimental setting.

Lupia and McCubbins (1998), Bassi, Morton, and Williams (2011), Dickson (2011), Tyszler and Schram (2016), Vieider and Vis (2019).

Setup

- The experiment was conducted in Chile (April/May 2021).
- O-tree (Z-tree). Fischbacher 2007.
- All participants were required to successfully complete two practice rounds.
- Show-up fee of \$2,000 CLP (≈ 2.1€).
- Every game was played between three people: two parties and one voter.
- All transactions were performed exchanging experimental "points."
- 102 subjects were recruited.
- Each subject played the game three times (N = 306).
- In-between subjects experimental design.

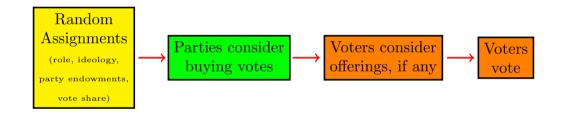
1. Role: party A, party B or voter.

Treatments

- 2. Voters: "ideological position" (points depending on whether party A or B won election). Points reflect "spatial" distance between the voter and both parties (continuum 1-100).
- 3. **Parties**: endowments (points to buy votes, if any).

But both parties receive the same endowment in the same game.

- 4. Parties: vote shares (number of votes each party will receive—excluding the "voter" participant.
- Every randomization was common knowledge.



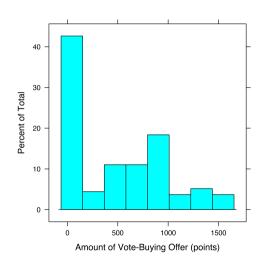
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Payoffs							

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Dependent Variable

- Focus is vote buying (parties).

  Voter data discarded
- Dependent variable: the amount of the vote-buying offer made by parties (if any).
- If predictions of formal model are accurate, we should see that offers go up when the risk of losing the election is higher.



Offer
$$_i = \beta_0 + \beta_1$$
Vote Share $_i + \beta_2 \Delta$ Points Accumulated $_i + \beta_3$ Spatial Distance $_i + \beta_4$ Party Budget $_i + \alpha_i + \epsilon_i$ 

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• Dependent variable described.

Offer<sub>i</sub> = 
$$\beta_0$$
+  
 $\beta_1$ Vote Share<sub>i</sub>+  
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 $\alpha_i + \epsilon_i$ 

• Number of certain votes each party.

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• Change in points respect to t-1 (prior round).

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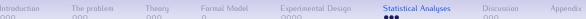
• Distance from the voter (points).

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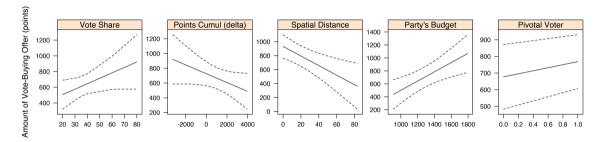
• Party's budget (points).

```
Offer_i = eta_0 + \\ eta_1 \text{Vote Share}_i + \\ eta_2 \Delta \text{Points Accumulated}_i + \\ eta_3 \text{Spatial Distance}_i + \\ eta_4 \text{Party Budget}_i + \\ eta_i + \epsilon_i
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• Participant fixed effects.

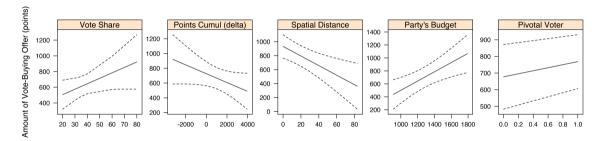






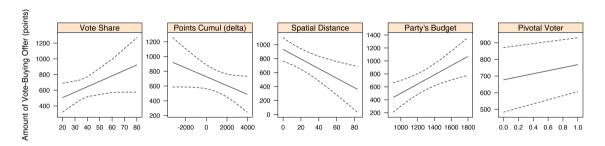
Overall, results conform with Prospect Theory's predictions. Related the conformal variable conformation of the conformation o



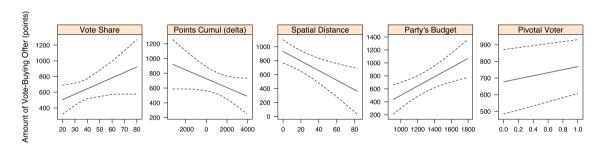


1. Parties buy more votes when are likely winners (not losers).

Results



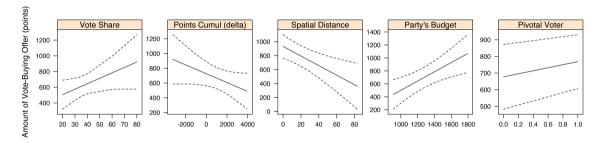
2. Decision-makers buy more votes when sunk costs are higher.



3. Spatial distances (core/swing) do not matter.

Results





#### 4. Party budget does not matter.

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  - 1. The rationale of clientelist targeting.
  - 2. The role of electoral contestation.

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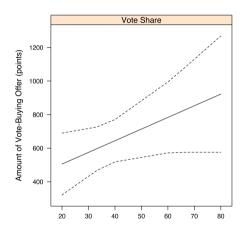
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- To test this theory, we **formalized a theory of vote-buying** and test it in the **lab**.
- Results widely conform with Prospect Theory.

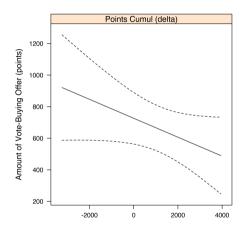
Discussion

 Parties are risk-averse in the domain of gains: decision-makers exaggerate the probability of unlikely losses, so they buy more votes when are likely winners (not losers).

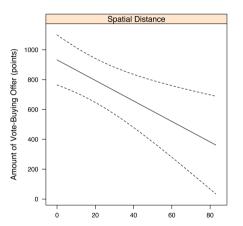


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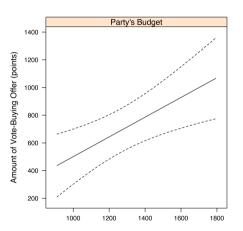
• Parties are risk-seeking in the domain of losses: unlike FUT theories predict, parties do consider sunk costs, buying more votes to compensate for past losses.



 Core/swing voters: voter types are not relevant for vote buying.



 Party budgets: unlike traditional theories, wealthier parties don't necessarily buy more votes.



End

# Thank you



- Paper (draft) available at www.HectorBahamonde.com.
- All feedback is welcomed!

	role	variable	n	min	max	median	iqr	mean	sd	se	ci
1	Party A	left.right	66	1	10	3	4	4	2	0	1
2	Party B	left.right	66	1	10	4	3	4	2	0	1
3	Voter	left.right	68	1	10	3	3	4	2	0	1
4	Party A	male	66	0	1	0	1	0	0	0	0
5	Party B	male	66	0	1	0	1	0	0	0	0
6	Voter	male	68	0	1	0	1	0	0	0	0
7	Party A	party.id	66	2	9	9	0	8	2	0	0
8	Party B	party.id	66	1	9	9	0	9	1	0	0
9	Voter	party.id	68	1	9	9	0	8	2	0	0
10	Party A	party.like	66	0	1	0	1	0	0	0	0
11	Party B	party.like	66	0	1	0	0	0	0	0	0
12	Voter	party.like	68	0	1	0	0	0	0	0	0
13	Party A	payoff	73	633	4224	2630	674	2621	670	78	156
14	Party B	payoff	72	1148	4062	2592	710	2607	665	78	156
15	Voter	payoff	75	633	4224	2674	836	2664	697	80	160
16	Party A	salary.enough	66	1	4	2	0	2	1	0	0
17	Party B	salary.enough	66	1	4	2	1	2	1	0	0
18	Voter	salary.enough	68	1	3	2	0	2	1	0	0
19	Party A	vote.last.election	66	0	1	1	0	1	0	0	0
20	Party B	vote.last.election	66	0	1	1	0	1	0	0	0
21	Voter	vote.last.election	68	0	1	1	0	1	0	0	0
22	Party A	vote.next.election	66	0	1	1	0	1	0	0	0
23	Party B	vote.next.election	66	0	1	1	0	1	0	0	0
24	Voter	vote.next.election	68	0	1	1	0	1	0	0	0
24	voter	vote.next.election	00	U			U		U	U	- 0

Table: Summary Statistics.

	Amount of Vote-Buying Offer
Intercept	-380.54
	(568.66)
Vote Share	6.95
	(5.55)
Points Accumulated (delta)	-0.06
	(0.05)
Spatial Distance	$-6.87^{*}$
	(3.26)
Party Budget	0.71*
	(0.34)
Pivotal Voter	91.16
	(124.46)
R <sup>2</sup>	0.66
Adj. R <sup>2</sup>	-0.16
Num. obs.	142

\*\*\*p < 0.001; \*\*p < 0.01; \*p < 0.05; \*cdot p < 0.1.

Robust standard errors in parentheses

OLS