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

Hector Bahamonde [1] Andrea Canales [2]

[1]University of Turku, Finland

[2]O'Higgins University, Chile

June 10, 2022

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

- **Say you're a clientelist political party campaigning**

Vote-Buying Literature Builds on the Wrong Framework

- **Say you're a clientelist political party campaigning**:
  1. When do you buy votes? Winning/losing the election?

Vote-Buying Literature Builds on the Wrong Framework

- **Say you're a clientelist political party campaigning**:
  1. When do you buy votes? Winning/losing the election?
  2. Who do you target? Your own supporters ("core") or the ones who are more likely to flip ("swing")?

Vote-Buying Literature Builds on the Wrong Framework

- **Say you're a clientelist political party campaigning**:
  1. When do you buy votes? Winning/losing the election?
  2. Who do you target? Your own supporters ("core") or the ones who are more likely to flip ("swing")?
  3. Should your past "haunt" you? Do prior electoral losses matter?

Vote-Buying Literature Builds on the Wrong Framework

- **Say you're a clientelist political party campaigning**:
  1. When do you buy votes? Winning/losing the election?
  2. Who do you target? Your own supporters ("core") or the ones who are more likely to flip ("swing")?
  3. Should your past "haunt" you? Do prior electoral losses matter?
- **If we follow what the literature says...the answers are mixed**:

Vote-Buying Literature Builds on the Wrong Framework

- **Say you're a clientelist political party campaigning**:
  1. When do you buy votes? Winning/losing the election?
  2. Who do you target? Your own supporters ("core") or the ones who are more likely to flip ("swing")?
  3. Should your past "haunt" you? Do prior electoral losses matter?
- **If we follow what the literature says...the answers are mixed**:
  - ✓ Usually, when losing the elections.

Vote-Buying Literature Builds on the Wrong Framework

- **Say you're a clientelist political party campaigning**:
  1. When do you buy votes? Winning/losing the election?
  2. Who do you target? Your own supporters ("core") or the ones who are more likely to flip ("swing")?
  3. Should your past "haunt" you? Do prior electoral losses matter?
- **If we follow what the literature says...the answers are mixed**:
  - ✓ Usually, when losing the elections.
  - ✓ Core *or* swing voters.

Vote-Buying Literature Builds on the Wrong Framework

- **Say you're a clientelist political party campaigning**:
  1. When do you buy votes? Winning/losing the election?
  2. Who do you target? Your own supporters ("core") or the ones who are more likely to flip ("swing")?
  3. Should your past "haunt" you? Do prior electoral losses matter?
- **If we follow what the literature says...the answers are mixed**:
  - ✓ Usually, when losing the elections.
  - ✓ Core *or* swing voters.
  - ✓ It shouldn't: **"sunk costs"** should not affect current decisions.

Vote-Buying Literature Builds on the Wrong Framework

- **Say you're a clientelist political party campaigning**:
  1. When do you buy votes? Winning/losing the election?
  2. Who do you target? Your own supporters ("core") or the ones who are more likely to flip ("swing")?
  3. Should your past "haunt" you? Do prior electoral losses matter?
- **If we follow what the literature says...the answers are mixed**:
  - ✓ Usually, when losing the elections.
  - ✓ Core *or* swing voters.
  - ✓ It shouldn't: **"sunk costs"** should not affect current decisions.
- **And yet...**:
  - ? Incumbents also buy votes when they're **winning** the election.

Vote-Buying Literature Builds on the Wrong Framework

- **Say you're a clientelist political party campaigning**:
  1. When do you buy votes? Winning/losing the election?
  2. Who do you target? Your own supporters ("core") or the ones who are more likely to flip ("swing")?
  3. Should your past "haunt" you? Do prior electoral losses matter?
- **If we follow what the literature says...the answers are mixed**:
  - ✓ Usually, when losing the elections.
  - ✓ Core *or* swing voters.
  - ✓ It shouldn't: **"sunk costs"** should not affect current decisions.
- **And yet...**:
  - ? Incumbents also buy votes when they're **winning** the election.
  - ? It's not clear why targeting core voters is not a **waste**

Vote-Buying Literature Builds on the Wrong Framework

- **Say you're a clientelist political party campaigning**:
  1. When do you buy votes? Winning/losing the election?
  2. Who do you target? Your own supporters ("core") or the ones who are more likely to flip ("swing")?
  3. Should your past "haunt" you? Do prior electoral losses matter?
- **If we follow what the literature says...the answers are mixed**:
  - ✓ Usually, when losing the elections.
  - ✓ Core *or* swing voters.
  - ✓ It shouldn't: **"sunk costs"** should not affect current decisions.
- **And yet...**:
  - ? Incumbents also buy votes when they're **winning** the election.
  - ? It's not clear why targeting core voters is not a **waste**
  - ? The role of past losses has been completely overlooked ("sunk cost **fallacy**")

This Talk

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

  As a consequence, there are too many important loose ends.

This Talk

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

  As a consequence, there are too many important loose ends.
- **Propose** to re-think about how parties make decisions under risk (Prospect Theory).

This Talk

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

  As a consequence, there are too many important loose ends.
- **Propose** to re-think about how parties make decisions under risk (Prospect Theory).
- **Empirics**: we designed an economic lab experiment of vote buying.

This Talk

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

  As a consequence, there are too many important loose ends.
- **Propose** to re-think about how parties make decisions under risk (Prospect Theory).
- **Empirics**: we designed an economic lab experiment of vote buying.
- **Results**: Prospect Theory explains better parties' decision-making process in risky contexts.

Argument

Vote-buying will be higher when parties...

- Risk-aversion in the domain of **gains**:
  - ✓ Are wining the election.
  - ✓ Deal with their own supporters (parties would hate to lose already acquired assets)

Argument

Vote-buying will be higher when parties...

- Risk-aversion in the domain of **gains**:
  - ✓ Are wining the election.
  - ✓ Deal with their own supporters (parties would hate to lose already acquired assets)
- Risk-seeking in the domain of **losses**.
  - ✓ Have experienced losses in the past (sunk costs).

Clientelism and the Expected Utility Theory

- EUT was one of the first theories of decision making under risk.

Clientelism and the Expected Utility Theory

- EUT was one of the first theories of decision making under risk.
- Since its introduction, it has *dominated* political science.

Clientelism and the Expected Utility Theory

- EUT was one of the first theories of decision making under risk.
- Since its introduction, it has *dominated* political science.
- **The problem**: most of the literature assumes that in the party's decision-making process:

Clientelism and the Expected Utility Theory

- EUT was one of the first theories of decision making under risk.
- Since its introduction, it has *dominated* political science.
- **The problem**: most of the literature assumes that in the party's decision-making process:
  1. Losses and gains affect in a **comparable** way.
     Winning elections **feels just as good as** losing one hurts.

Clientelism and the Expected Utility Theory

- EUT was one of the first theories of decision making under risk.
- Since its introduction, it has *dominated* political science.
- **The problem**: most of the literature assumes that in the party's decision-making process:
  1. Losses and gains affect in a **comparable** way.
     Winning elections **feels just as good as** losing one hurts.
  2. Parties focus only on **absolute** levels of utilities.
     Overlooking **changes** in outcomes respect to a reference point ("sunk costs").

Clientelism and the Expected Utility Theory

- EUT was one of the first theories of decision making under risk.
- Since its introduction, it has *dominated* political science.
- **The problem**: most of the literature assumes that in the party's decision-making process:
  1. Losses and gains affect in a **comparable** way.
     Winning elections **feels just as good as** losing one hurts.
  2. Parties focus only on **absolute** levels of utilities.
     Overlooking **changes** in outcomes respect to a reference point ("sunk costs").
- These assumptions have led to several empirical inconsistencies.

Clientelism and the Expected Utility Theory

- EUT was one of the first theories of decision making under risk.
- Since its introduction, it has *dominated* political science.
- **The problem**: most of the literature assumes that in the party's decision-making process:
  1. Losses and gains affect in a **comparable** way.
     Winning elections **feels just as good as** losing one hurts.
  2. Parties focus only on **absolute** levels of utilities.
     Overlooking **changes** in outcomes respect to a reference point ("sunk costs").
- These assumptions have led to several empirical inconsistencies.
  1. Clientelist Targeting.
  2. Political Contestation.

Not Clear Who Clientelist Parties Target

- Since constituencies are well known to clientelist parties, they allocate resources to **core voters**.

  Cox and Mccubbins (1986).

Not Clear Who Clientelist Parties Target

- Since constituencies are well known to clientelist parties, they allocate resources to **core voters**.

  Cox and Mccubbins (1986).

- Since allocating resources to individuals who ex-ante vote for the party is a waste, parties target **swing voters**.

  Dixit and Londregan (1996) and Stokes (2005).

Not Clear Who Clientelist Parties Target

- Since constituencies are well known to clientelist parties, they allocate resources to **core voters**.

  Cox and Mccubbins (1986).

- Since allocating resources to individuals who ex-ante vote for the party is a waste, parties target **swing voters**.

  Dixit and Londregan (1996) and Stokes (2005).

- This is a *very* important question, yet the literature has failed to answer it.

  Carlin and Moseley (2015).

Not Clear The Role of Political Contestation on Vote Buying

- The more contested an election, the more risks of losing the election, the more vote buying.

  Scott (1972), Shefter (1977), Diaz-Cayeros (2008), Corstange (2018).

Not Clear The Role of Political Contestation on Vote Buying

- The more contested an election, the more risks of losing the election, the more vote buying.

  Scott (1972), Shefter (1977), Diaz-Cayeros (2008), Corstange (2018).

- However, some find very high levels of vote-buying in **uncontested** elections.

  Gonzalez-Ocantos, Jonge, et al. (2012).

Not Clear The Role of Political Contestation on Vote Buying

- The more contested an election, the more risks of losing the election, the more vote buying.

  Scott (1972), Shefter (1977), Diaz-Cayeros (2008), Corstange (2018).

- However, some find very high levels of vote-buying in **uncontested** elections.

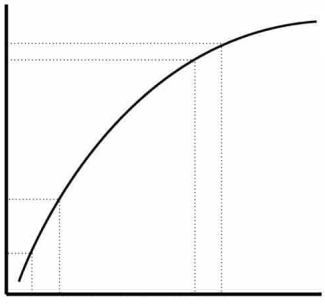
  Gonzalez-Ocantos, Jonge, et al. (2012).

- 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 EUT:

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



Wrong Understanding of Decision-Making Process under Risk

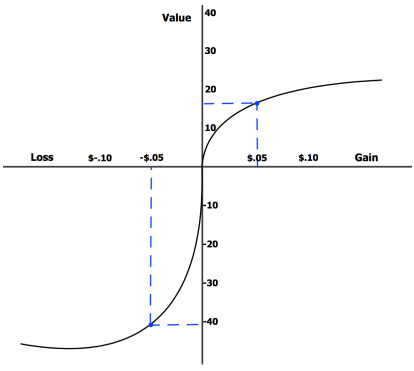
Change from EUT:

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

To Prospect Theory:

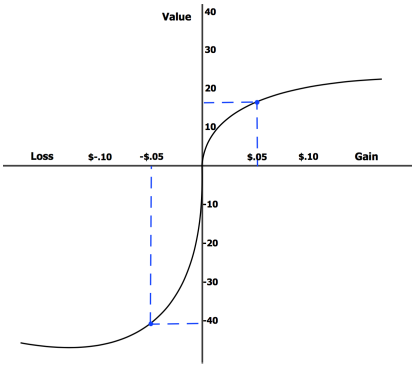
Kahneman and Tversky (1979)

1. **Reference dependence**.
2. **Value function**.



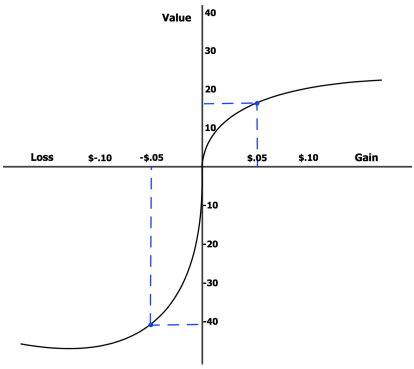
Prospect Theory

1. **Reference dependence**. Elements that influence decisions,



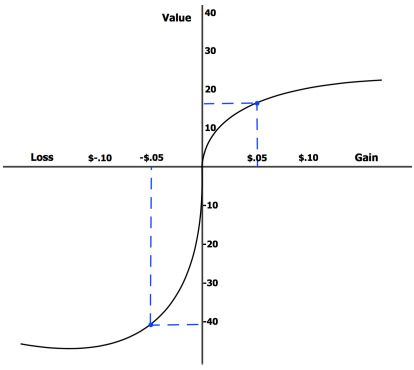
Prospect Theory

1. **Reference dependence**. Elements that influence decisions,
   - ✓ context in which the decision-making processes take place.



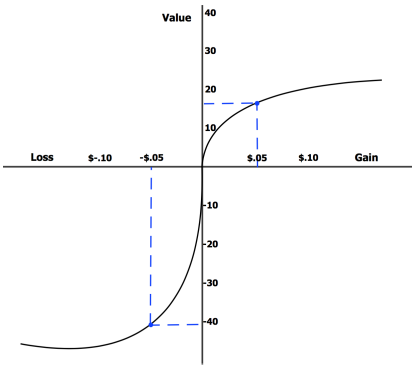
Prospect Theory

1. **Reference dependence**. Elements that influence decisions,
   - ✓ context in which the decision-making processes take place.
   - ✓ changes of wealth, rather than final asset positions.



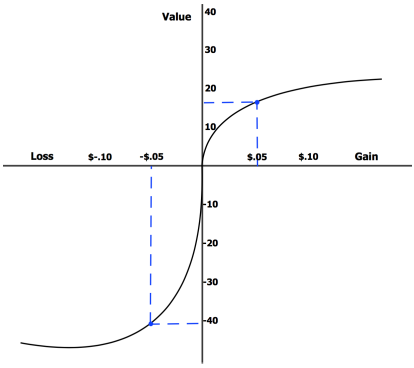
Prospect Theory

1. **Reference dependence**. Elements that influence decisions,
   - ✓ context in which the decision-making processes take place.
   - ✓ changes of wealth, rather than final asset positions.
   - ✓ sunk costs do matter: loses are harder to accept.



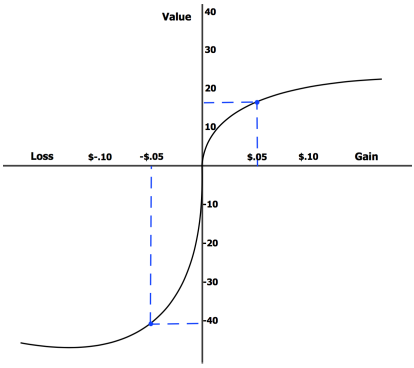
Prospect Theory

2. **Value function**. The asymmetrical curvature of the value function does influence decisions,



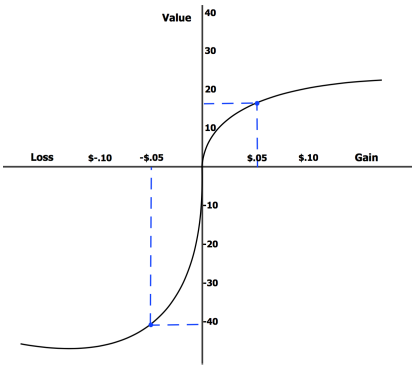
Prospect Theory

2. **Value function**. The asymmetrical curvature of the value function does influence decisions,
   - ✓ Individuals are risk-averse in the domain of gains.



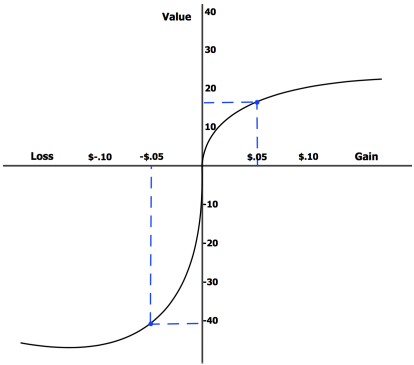
Prospect Theory

2. **Value function**. The asymmetrical curvature of the value function does influence decisions,
   - ✓ Individuals are risk-averse in the domain of gains.
   - ✓ Individuals are risk-acceptant in the domain of losses.



Prospect Theory

2. **Value function**. The asymmetrical curvature of the value function does influence decisions,
   - ✓ Individuals are risk-averse in the domain of gains.
   - ✓ Individuals are risk-acceptant in the domain of losses.
   - ✓ In simple, **loses loom larger than gains**.



Prospect Theory: Implications for Vote-Buying

1. Due to **loss aversion** parties will find **intolerable** the idea of **losing the supporter base they already have**.
   - ✓ **Are probable winners**.
   - ✓ **When dealing with own supporters**.
2. Since past loses alter the reference point, incumbents will buy more votes when they've spent/lost a lot in the past.
   - ✓ **Sunk costs are high**.

Prospect Theory: Implications for Vote-Buying

1. Due to **loss aversion** parties will find **intolerable** the idea of **losing the supporter base they already have**.
   - ✓ **Are probable winners**.
   - ✓ **When dealing with own supporters**.
2. Since past loses alter the reference point, incumbents will buy more votes when they've spent/lost a lot in the past.
   - ✓ **Sunk costs are high**.

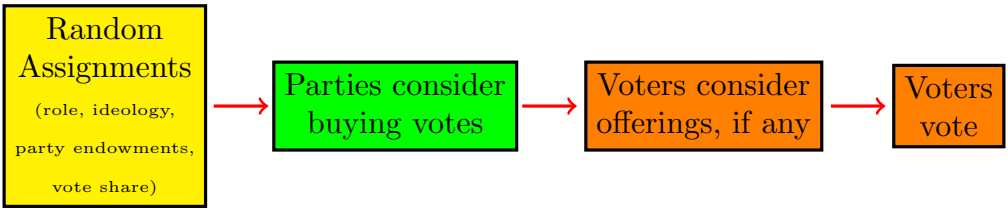
Decision-makers are more concerned with preventing a decline than increasing gains.

- 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 $2,000 CLP ($\approx$ 2.1€).
- Every game was played between three people: two parties and one voter.
- All transactions were performed exchanging experimental "points."
  (1 point = $0.42).
- 102 subjects were recruited.
- Each subject played the game three times (N = 306).
- In-between subjects experimental design.

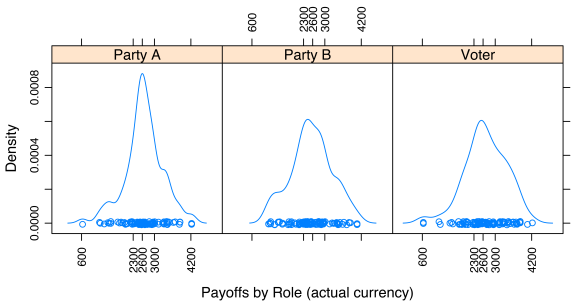
1. Role: *party A*, *party B* or *voter*.
2. **Voters**: "ideological position" (points depending on whether party A or B wins the election). Points reflect "spatial" distance between the voter and both parties (continuum 1-100).
3. **Parties**: endowments (points to buy votes, if any).

   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.

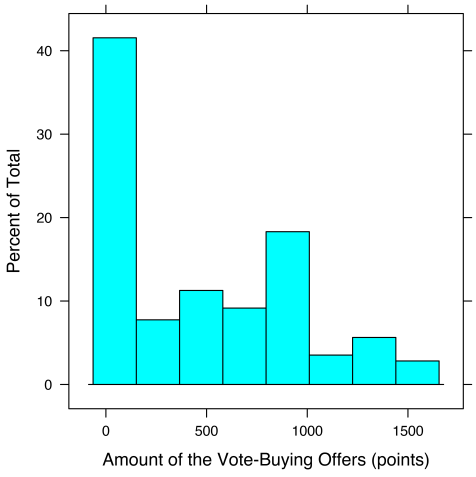
- Every randomization was common knowledge.


Random Assignments
(role, ideology, party endowments, vote share)
Parties consider buying votes
Voters consider offerings, if any
Voters vote

- **Parties**: payoffs depend on whether they are elected. If they spend points buying votes, that amount is discounted.
- **Voters**: payoffs depend on whether their party is elected, and on whether they sell their vote.



- EUT: offers go up when parties are **losing the election** (parties focus on **wins**).
- PT: parties focus on **loses** (hold on to what they "own").
  1. Buy more votes when the parties are **wining** the election.
  2. Buy more votes from **core** supporters (hurts more to lose **closest** voters).
  3. Buy more votes when yesterday's costs are high (need to spend more to "*break even*").



$$\begin{aligned}\text{Offer}_i = \beta_0 + \\ \beta_1 \text{Vote Share}_i + \\ \beta_2 \Delta\text{Points Accumulated}_i + \\ \beta_3 \text{Spatial Distance}_i + \\ \beta_4 \text{Party Budget}_i + \\ \beta_5 \text{Pivotal Voter}_i + \\ \alpha_n + \epsilon_i\end{aligned}$$

$$\begin{aligned}\text{Offer}_i = \beta_0 + \\ &\beta_1 \text{Vote Share}_i + \\ &\beta_2 \Delta\text{Points Accumulated}_i + \\ &\beta_3 \text{Spatial Distance}_i + \\ &\beta_4 \text{Party Budget}_i + \\ &\beta_5 \text{Pivotal Voter}_i + \\ &\alpha_n + \epsilon_i\end{aligned}$$

- Dependent variable described.

$$\begin{aligned}\text{Offer}_i = \beta_0 + \\ &\beta_1 \text{Vote Share}_i + \\ &\beta_2 \Delta\text{Points Accumulated}_i + \\ &\beta_3 \text{Spatial Distance}_i + \\ &\beta_4 \text{Party Budget}_i + \\ &\beta_5 \text{Pivotal Voter}_i + \\ &\alpha_n + \epsilon_i\end{aligned}$$

- Number of certain votes each party.

$$\begin{aligned}\text{Offer}_i = \beta_0 + \\ \beta_1 \text{Vote Share}_i + \\ \beta_2 \Delta \text{Points Accumulated}_i + \\ \beta_3 \text{Spatial Distance}_i + \\ \beta_4 \text{Party Budget}_i + \\ \beta_5 \text{Pivotal Voter}_i + \\ \alpha_n + \epsilon_i\end{aligned}$$

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

$$\begin{aligned}\text{Offer}_i = \beta_0 + \\ \beta_1 \text{Vote Share}_i + \\ \beta_2 \Delta \text{Points Accumulated}_i + \\ \beta_3 \text{Spatial Distance}_i + \\ \beta_4 \text{Party Budget}_i + \\ \beta_5 \text{Pivotal Voter}_i + \\ \alpha_n + \epsilon_i\end{aligned}$$

- Distance from the voter (points).

$$\begin{aligned}\text{Offer}_i = \beta_0 + \\ \beta_1 \text{Vote Share}_i + \\ \beta_2 \Delta \text{Points Accumulated}_i + \\ \beta_3 \text{Spatial Distance}_i + \\ \beta_4 \text{Party Budget}_i + \\ \beta_5 \text{Pivotal Voter}_i + \\ \alpha_n + \epsilon_i\end{aligned}$$

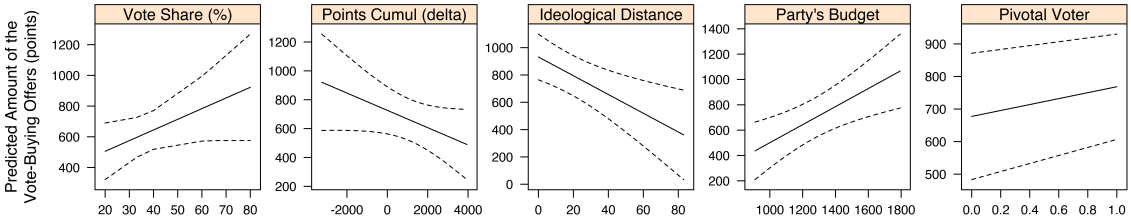
- Party's budget (points).

$$\begin{aligned}\text{Offer}_i = \beta_0 + \\ \beta_1 \text{Vote Share}_i + \\ \beta_2 \Delta \text{Points Accumulated}_i + \\ \beta_3 \text{Spatial Distance}_i + \\ \beta_4 \text{Party Budget}_i + \\ \beta_5 \text{Pivotal Voter}_i + \\ \alpha_n + \epsilon_i\end{aligned}$$

- Voter is pivotal.

$$\begin{aligned}\text{Offer}_i = \beta_0 + \\ \beta_1 \text{Vote Share}_i + \\ \beta_2 \Delta \text{Points Accumulated}_i + \\ \beta_3 \text{Spatial Distance}_i + \\ \beta_4 \text{Party Budget}_i + \\ \beta_5 \text{Pivotal Voter}_i + \\ \alpha_n + \epsilon_i\end{aligned}$$

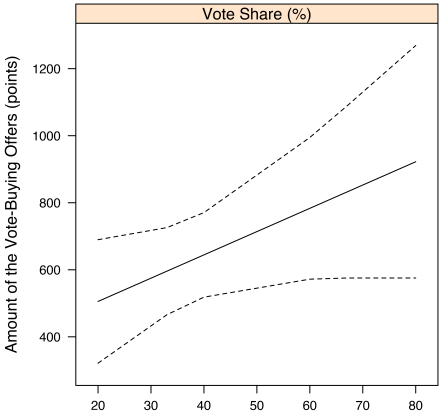
- Participant fixed effects.



Overall, results conform with Prospect Theory.

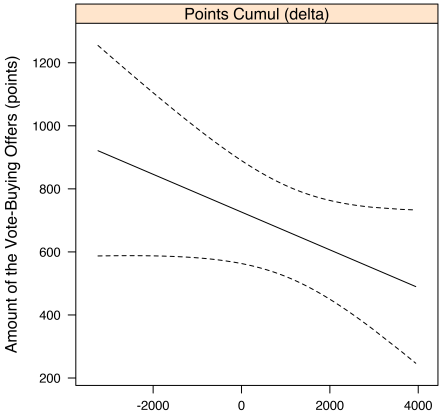
- **Parties are risk-averse in the domain of gains**: due to loss aversion, parties buy more votes when they're likely winners (not losers).

  Incumbents buy more votes to prevent a decline than to increasing gains.



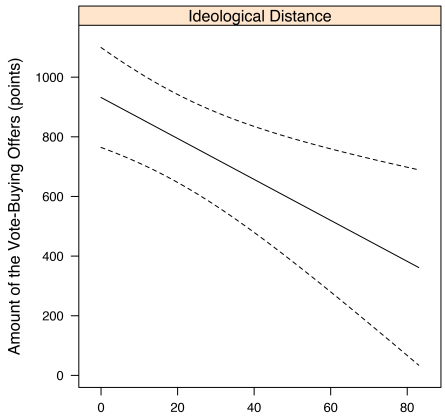
- **Parties are risk-seeking in the domain of losses**: unlike EUT, parties do consider sunk costs, buying more votes to compensate for past losses.

  Decision-makers try to break-even.

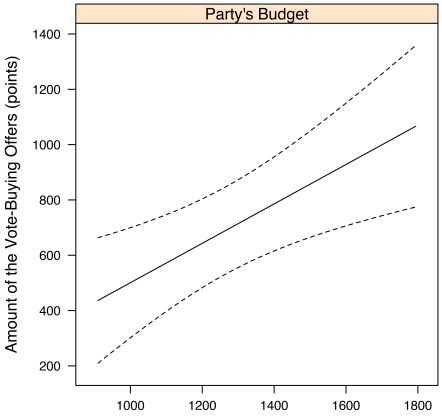


- **Core/swing voters**: Parties buy more votes at higher (not lower) prices from closest supporters.

  Unlike spatial theories of voting, core voters cost more (not less).

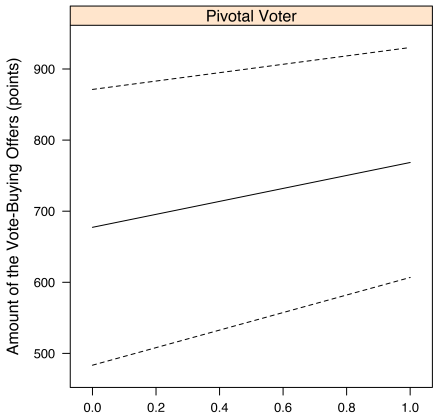


- **Party budgets**: Parties with larger budgets spend more on vote buying.



- **Pivotal voters**: don't cost more (against most of spatial theories of voting).

  This implies that parties don't see vote buying in the typical "insurance" sense: they don't buy more votes in tighter electoral races.



- This paper identified **three main gaps** in the literature. We don't know,
  1. the rationale of clientelist targeting.
  2. the role of electoral contestation.
  3. the unstudied role of sunk costs.

- This paper identified **three main gaps** in the literature. We don't know,
  1. the rationale of clientelist targeting.
  2. the role of electoral contestation.
  3. the unstudied role of sunk costs.
- We **attribute this confusion** to the the fact that the literature takes the **EUT as a starting point**.

- This paper identified **three main gaps** in the literature. We don't know,
  1. the rationale of clientelist targeting.
  2. the role of electoral contestation.
  3. the unstudied role of sunk costs.
- We **attribute this confusion** to the the fact that the literature takes the **EUT as a starting point**.
- We introduced **Prospect Theory** in the vote-buying literature as an **alternative way to understand decision-making under risk**.

- This paper identified **three main gaps** in the literature. We don't know,
  1. the rationale of clientelist targeting.
  2. the role of electoral contestation.
  3. the unstudied role of sunk costs.
- We **attribute this confusion** to the the fact that the literature takes the **EUT as a starting point**.
- We introduced **Prospect Theory** in the vote-buying literature as an **alternative way to understand decision-making under risk**.
- To test this theory we designed an economic experiment of vote buying.

- This paper identified **three main gaps** in the literature. We don't know,
  1. the rationale of clientelist targeting.
  2. the role of electoral contestation.
  3. the unstudied role of sunk costs.
- We **attribute this confusion** to the the fact that the literature takes the **EUT as a starting point**.
- We introduced **Prospect Theory** in the vote-buying literature as an **alternative way to understand decision-making under risk**.
- To test this theory we designed an economic experiment of vote buying.
- PT explains better the gaps in the literature.

Thank you

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

Role	Variable	N	Min.	Max.	Median	Interquartile Range	Mean	Std. Dev.	Std. Error	Conf. Int.
Party A	Feel close to a political party	66	0	1	0	1	0	0	0	0
Party B	Feel close to a political party	66	0	1	0	0	0	0	0	0
Voter	Feel close to a political party	68	0	1	0	0	0	0	0	0
Party A	Left - Right	66	1	10	3	4	4	2	0	1
Party B	Left - Right	66	1	10	4	3	4	2	0	1
Voter	Left - Right	68	1	10	3	3	4	2	0	1
Party A	Male	66	0	1	0	1	0	0	0	0
Party B	Male	66	0	1	0	1	0	0	0	0
Voter	Male	68	0	1	0	1	0	0	0	0
Party A	Party identification	66	2	9	9	0	8	2	0	0
Party B	Party identification	66	1	9	9	0	9	1	0	0
Voter	Party identification	68	1	9	9	0	8	2	0	0
Party A	Payoff	73	633	4224	2630	674	2621	670	78	156
Party B	Payoff	72	1148	4062	2592	710	2607	665	78	156
Voter	Payoff	75	633	4224	2674	836	2664	697	80	160
Party A	Salary is enough	66	1	4	2	0	2	1	0	0
Party B	Salary is enough	66	1	4	2	1	2	1	0	0
Voter	Salary is enough	68	1	3	2	0	2	1	0	0
Party A	Vote in the next election	66	0	1	1	0	1	0	0	0
Party B	Vote in the next election	66	0	1	1	0	1	0	0	0
Voter	Vote in the next election	68	0	1	1	0	1	0	0	0
Party A	Voted in the last election	66	0	1	1	0	1	0	0	0
Party B	Voted in the last election	66	0	1	1	0	1	0	0	0
Voter	Voted in the last election	68	0	1	1	0	1	0	0	0

Table: Summary Statistics.

	OLS
	Amount of the Vote-Buying Offers
Intercept	−380.54
	(568.66)
Vote Share (%)	6.95
	(5.55)
Points Accumulated (delta)	−0.06
	(0.05)
Ideological Distance	−6.87*
	(3.26)
Party Budget	0.71*
	(0.34)
Pivotal Voter	91.16
	(124.46)
R^2	0.66
Num. obs.	142

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.
Robust standard errors in parentheses.
Fixed effects parameteres omitted in table.