

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

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October 23, 2021

**Vote buying:** distribution of private rewards to individuals or small groups during elections in contingent exchange for vote choices (Nichter, 2014).



## 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 elections?
  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 losses matter?
- Intuitively, these questions seem easy to answer:
  - ✓ When losing the elections: **risk**.
  - ✓ To the ones who are more likely to flip ("swing"): **waste**.
  - ✓ It shouldn't: **"sunk costs."** should not affect current decisions.
- They are not. Starting point: traditional clientelism research has failed to answer these questions because it has a wrong understanding about the decision-making process of clientelist parties.

## Plan for Today

- **Motivate the problem:** vote buying literature is based solely on the Expected Utility Theory (EUT) (von Neumann and Morgenstern).
- **Explain why we should care:** as a consequence, there are too many important loose ends.
- **Propose a possible solution:** re-think how parties make decisions under risk (Prospect Theory).
- **Empirics:** following the precepts of EUT, we formalized a vote buying game, and then test it in an economic lab experiment.
- **Results:** we find strong support in favor of prospect theory.
- **Feedback wanted!**

## Argument

- Vote-buying will be higher when parties,**
- ✓ **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.

## Clientelism and the Expected Utility Theory

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

- 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).

- Some state “that our knowledge of who parties target remains incomplete.”

Carlin and Moseley (2015).

- We contend that this is *very* important question, yet one that literature has *failed* to answer.

## Not Clear The Role of Political Contestation on Vote Buying

- The more contested an election, the more risks of losing the election, the more incentives to resort to vote buying to prevent that from happening

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).

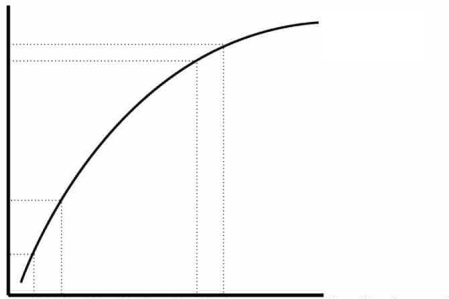
- Why would a party buy such a massive amount of votes in a safe and uncontested election?



# Wrong Understanding of Decision-Making Process under Risk

## Change from traditional focus (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

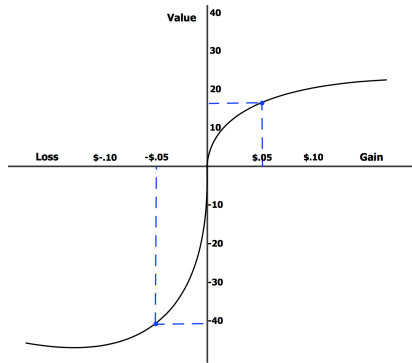
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## To one based on Prospect Theory

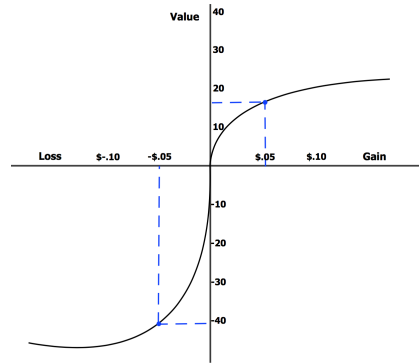
(Kahneman and Tversky, 1979):

1. **Reference dependence.**
2. **Likelihood dependence.**



# Prospect Theory

1. **Reference dependence.** Elements that influence decisions,
  - ✓ context in which decision-making processes take place.
  - ✓ changes of wealth, rather than final asset position.
  - ✓ sunk costs do matter.

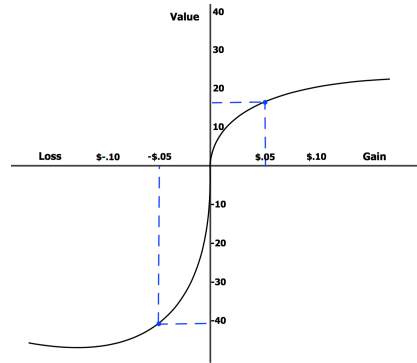


# Prospect Theory

## 2. Likelihood dependence.

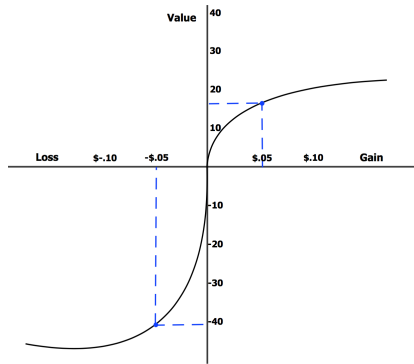
Asymmetrical curvature of the likelihood influences decisions,

- ✓ Individuals have risk-averse behaviors in the domain of gains.
- ✓ In the domain of losses, individuals have risk-acceptant behaviors.



## Prospect Theory and Vote-Buying

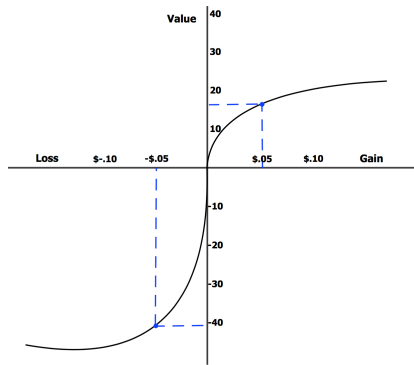
- **Overweighting:** in the domain of **losses**, the convexity of the function encourages **risk-seeking** behaviors by exaggerating the probabilities of rare but catastrophic losses.
- **Underweighting:** in the domain of **gains**, the concavity of the function encourages **risk aversion** by undervaluing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



## Prospect Theory and Vote-Buying

Vote-buying will be higher when parties,

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



## 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).

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

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

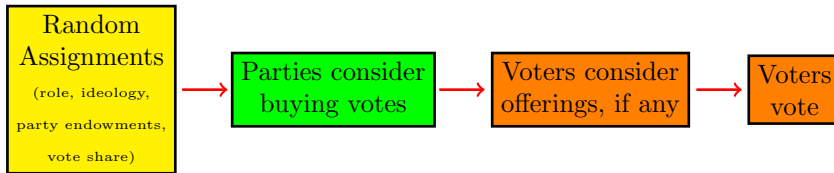
- The idea is to test the descriptive accuracy of the game-theory model in the experimental section of this paper.

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

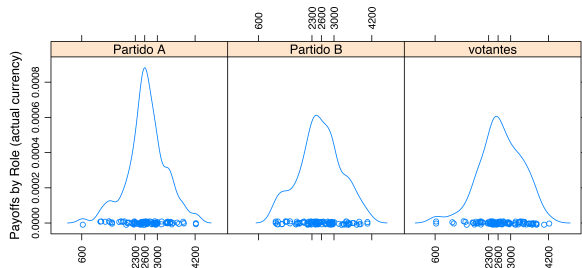
- The experiment was conducted in Chile (April/May 2021).
- 0-tree (Z-tree). Fischbacher 2007.
- All participants were required to successfully complete two practice rounds.
- Show-up fee of \$2,000 CLP ( $\approx 2.1\text{€}$ ).
- Every game was played between three people: two parties and one voter.
- All transactions were performed exchanging experimental “points.”  
(1 point = \$0.42).
- 102 subjects were recruited.
- Each subject played the game three times ( $N = 306$ ).



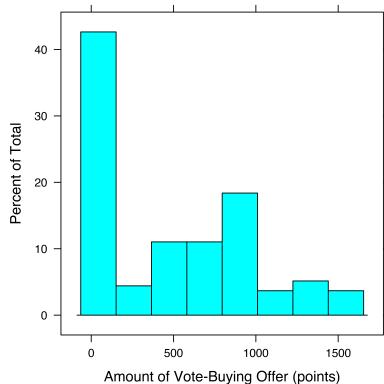
1. **Role:** *party A, party B* or *voter*.
2. **Voters:** “**ideological position**” (points depending on whether party A or B won election). Points reflect “spatial” distance between the voter and both parties (continuum 1–100).
3. **Parties:** **endowments** (points to buy votes, if any).  
But both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



- **Parties:** payoffs depend on whether they are elected. If they spend points on vote-buying, that amount is discounted.
- **Voters:** payoffs depend on whether their party is elected, and on whether they sell their vote. **Can't defect:** if they accept an offer, they vote for that party.



- 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 and traditional vote-buying theories are accurate, we should see that offers go up when facing probable electoral losses.



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

.

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- Dependent variable described.

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

- Number of certain votes each party.

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

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



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

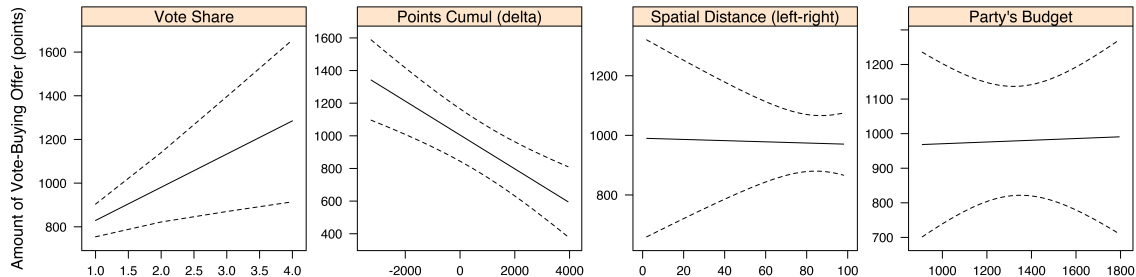
- Distance from the voter (points).

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

- Party's budget (points).

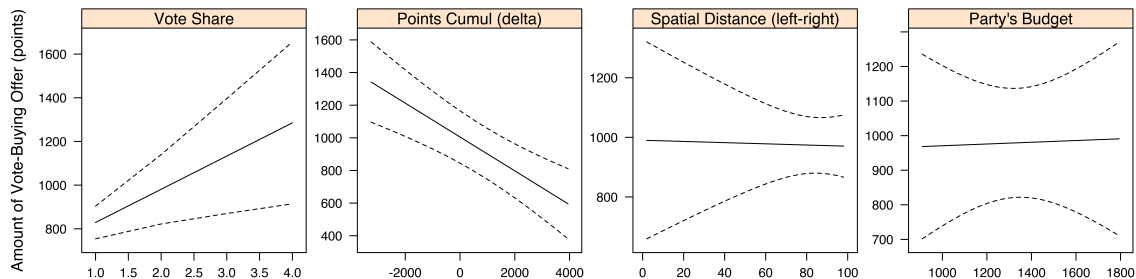
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- Participant fixed effects.

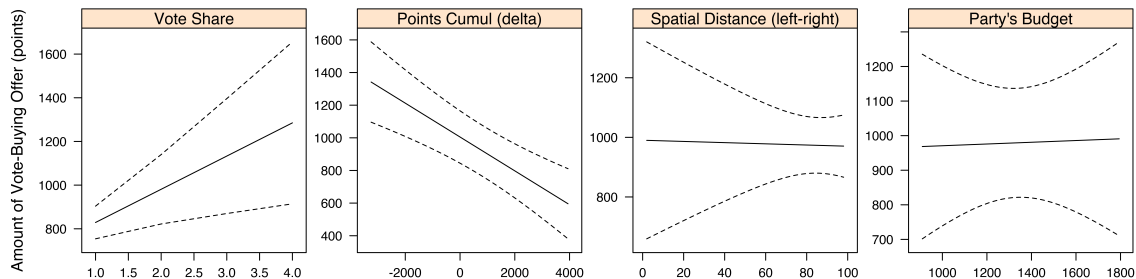


Overall, results conform with Prospect Theory's predictions.

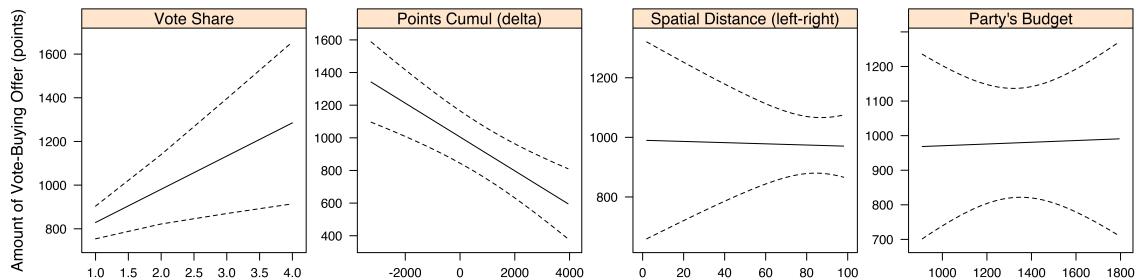
Robust std. errors used to construct confidence intervals.



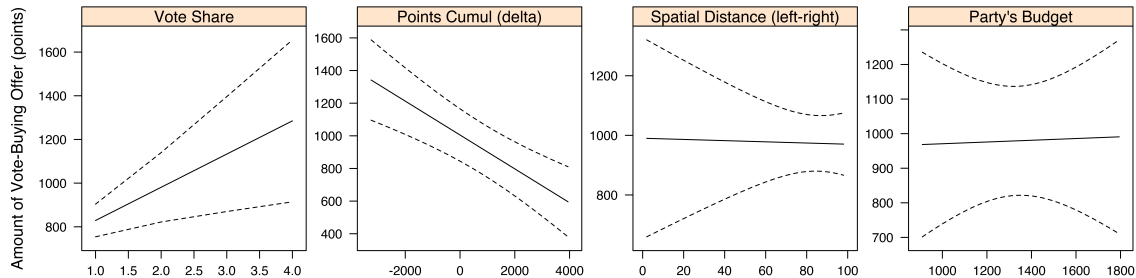
1. Parties buy vote more when winning the election (not when losing).



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



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



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



- Test:

