Vote Selling in the United States: Introducing Machine Learning Methods to Analyzing Conjoint Experimental Data

HÉCTOR BAHAMONDE [*1] and

CRISTOBAL QUININAO [†2]

[1] Assistant Professor, Instituto de Ciencias Sociales, O'Higgins University (Chile)

[2] Assistant Professor, Instituto de Ciencias de la Ingeniería O'Higgins University

(Chile)

August 28, 2020

Abstract

Hello World

Please consider downloading the last version of the paper here.

Keywords — conjoint; vector support machines; support for democracy; United States.

---

[*] hector.bahamonde@uoh.cl; www.HectorBahamonde.com.

[†] cristobal.quininao@uoh.cl; PAGINA AQUI.

I. Introduction

II. Multidimensional Approach Toward the Study of Vote-Selling

Democracy has been theorized as a multidimensional concept. Referring particularly to *polyarchies*, Dahl (1971, p. 3) explains that among some of the requirements for sustaining a democracy, there must be some institutional guarantees that create opportunities to (1) formulate preferences, (2) signify those preferences, and (3) have preferences weighted equally when conducting a government. Since cases where countries are "completely or almost completely responsive to all its citizens" are rare, Dahl (1971, p. 8) prefers to use the multidimensional concept of *polyarchy*.

Yet, clientelism—as a democratic failure—has been studied almost exclusively from a unidimensional perspective. In fact, we believe that there exists a methodological and conceptual alignment. On the one hand, qualitative, historical and/or ethnographically based contributions describe clientelist transactions as complex and multidimensional. In general, this body of research leveraging qualitative techniques are able to provide thick descriptions of the phenomena at hand (Posada-Carbó 1996; Sabato 2001; Auyero 2000; Szwarcberg 2013; Borges 2019). On the other hand, statistical, survey, and/or experimentally based work mostly explores singular issues related to clientelism, such as the effect of a single variable (or treatment) on the probability of clientelism. For example, using a field experiment in Benin, Wantchekon (2003) stresses the role of *incumbency* on vote buying. Jensen and Justesen (2014, p. 227) focus on the impact of *poverty* on vote buying, while Khemani (2015, p. 84) shows that "vote buying in poor democracies is associated with lower [public] investments." While the quantitative literature on clientelism has advanced on a number of important questions, most studies concentrate their efforts on a single factor, often times (when possible) manipulating just one variable (Corstange 2012; Imai, Park, and Greene 2015; Nichter and Peress 2017; Hicken et al. 2015; Hicken et al. 2018; Michael and Thachil 2018; Bratton 2008; Weitz-Shapiro 2012; González-Ocantos, Kiewiet de Jonge, and Nickerson 2014; Hector Bahamonde 2018; Héctor Bahamonde 2020; Oliveros 2016).

We argue that to better understand the motivations behind clientelism and the micro-dynamics that drive it, studies should situate both vote-buying and vote-selling within the multidimensionality of *democracy* as a concept. While qualitative researchers are better equipped to properly do so, the are some quantitative techniques that might provide broader explanations for the causes of

1

clientelism. We do not argue that these quantitative tools might give us the kind of rich explanations ethnographies provide. However, we hope this paper provides multidimensional answers to a multidimensional concept. In particular, *Which of the three democratic subdimensions explained by Dahl (1971) should fail to produce clientelism?*

The next section gives a historical account of clientelism in the United States. The section also attempts to situate the phenomena within a historical context, at the same time that it justifies it as a case. It particularly shows how vote buying and vote selling transitioned from their status as an important institution in American elections to a scarcely practiced electoral method.

section's ok.
add remaining sections

III.   The United States as a Case Study

This paper makes both methodological and substantive contributions to the literature by leveraging a conjoint experiment on hypothetical vote selling in a consolidated democracy. Most quantitative studies have been conducted in developing countries, seriously narrowing the scope of our inferences. In part, this is because the clientelism literature usually focuses on realized behaviors only—that is, actual clientelist transactions. Unfortunately, by ignoring attitudes of potential vote sellers, particularly when it comes to the willingness to sell, selection bias seriously threatens causal inferences. Geddes (1990, p. 131) explains the well-known selection issues of studying "only cases that have achieved the outcome of interest." Thus, and following the lead of González-Ocantos, Kiewiet de Jonge, and Nickerson (2014), this paper presents experimental evidence of hypothetical willingness to sell the vote in the United States.

The evidence that this paper presents may be associated with a probable erosion of American democracy.[1] Foa and Mounk (2016, p. 7) document a deep "crisis of democratic legitimacy [that] extends across a [...] wider set of indicators" in the United States. They find that 26% of millennials declare that it is "unimportant" in a democracy for people to "choose their leaders in free elections" (Foa and Mounk (2016, p. 10), and Foa and Mounk (2017)). And such, this study follows a "least-likely" design presenting the United States as a "crucial case." As Levy (2008, p. 12) explains, "[i]nferential leverage from a least likely case is enhanced if our theoretical priors for the leading alternative explanation make it a most likely case for that theory." Since the vote-buying literature mostly considers *developing* countries and describes vote sellers as poor (Weitz-Shapiro 2014, p. 12),

---

[1]Relatedly, see Levitsky and Ziblatt (2018).

uneducated (González-Ocantos, Kiewiet de Jonge, and Nickerson 2014), and undemocratic (Carlin and Moseley 2015), the willingness to sell votes in the United States should be low, making it a difficult case study on vote selling.   section ok

I. Brief Historical Section

At first, many advanced democracies were clientelist political systems. For instance, Stokes et al. (2013, p. 200) explain that in the nineteenth-century United States, "vote buying was commonplace" and "the major urban political institution in the late nineteenth century" (Erie 1990, p. 2). Poor bureaucracies and bad-quality record-keeping helped to foster electoral malpractice.[2] First, most states did not have actual registration laws, making voter eligibility difficult to determine (Argersinger 1985, p. 672). Historians frequently report that judges at polling places had a hard time determining not only the age of the potential voter, but also whether the prospective voter was a U.S. citizen, especially in cases that involved newly naturalized immigrants with strong foreign accents (Bensel 2004, p. 20). For instance, judges used as a rough proxy whether the prospective voter had the ability to grow a beard (Bensel 2004, p. 20). Consequently, it was often up to the judge's discretion whether to let prospective voters cast a ballot. Since judges were party appointees (Argersinger 1985, p. 672), their discretionary powers were systematically used to shape electoral outcomes.

The "party strip" or "unofficial" ballot system also permitted all sorts of fraudulent practices. The parties themselves produced party tickets. Since tickets varied by size and color, it made "the voter's choice of party a public act and rendered voters susceptible to various forms of intimidation and influence while facilitating vote buying" (Argersinger 1985, p. 672). In addition, the ticket system required very strong party machines, which, in turn, required considerable economic resources to make the system work. However, political machines were oiled not only with money. On the one hand, many "ticket peddlers" (Argersinger 1985, p. 672) were volunteers (Bensel 2004, p. 17). Most of these volunteers "enjoyed the patronage of elected party officials by holding government jobs" (Bensel 2004, p. 17). On the other hand, political appointees "from janitor to secretary of state" and some corporations donated annually part of their revenues (Reynolds 1980, p. 197). Thus, parties amassed huge amounts of money. With all these resources flooding the polls on election day, voting was truly an interesting spectacle. On that day, party agents would offer voters plenty of liquor

---

[2]The U.S. Bureau of the Census did not exist. Consequently, it was relatively easy to invent names, "repeat," or use any other subterfuge to "stuff the ballot box" (Argersinger 1985, p. 680).

as an incentive to vote the party ticket. Hence, "the street or square outside the voting window frequently became a kind of alcoholic festival in which many men were clearly and spectacularly drunk [to the point that] some could not remember whether or not they had voted" (Bensel 2004, p. 20).
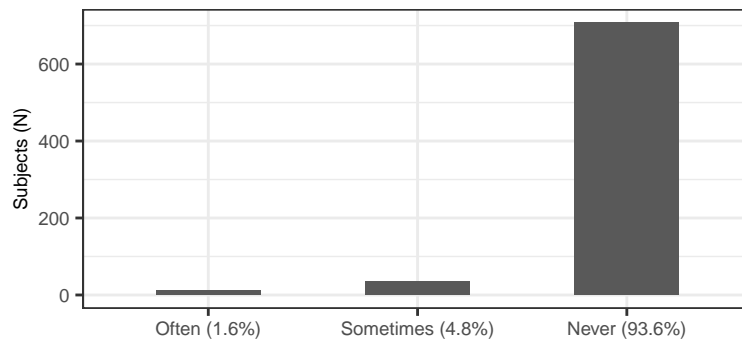

Figure 1: Frequency of Clientelism in the United States (2010).
Note: *Figure shows the frequency of survey respondents, N = 755.*
Source: *LAPOP, 2010 wave for the United States. Question is `clien1`: "In recent years and thinking about election campaigns, has a candidate or someone from a political party offered you something, like a favor, food, or any other benefit or object in return for your vote or support? Has this happened often, sometimes, or never?"*

Today, the *modus operandi* of clientelism has changed, and both the frequency of vote buying/selling and the importance of party machines have declined (Figure 1). Scholars have pointed out that "party machines are a thing of the past" (Stokes et al. 2013, p. 230). However, some contemporary accounts remain of vote buying and selling in American elections.[3] Similarly, non-academic sources find that during the 2010 elections, "selling votes [was a] common type of election fraud" (Fahrenthold 2012). Others find that "[v]ote-buying is extremely common in *developed* [...] countries" (Leight, Pande, and Ralston 2016, p. 1). *While vote-selling and vote-buying seem to have declined, which of the three subdimensions explained by Dahl (1971) would need to fail to make clientelism more likely?*

section ok

---

[3]For instance, Campbell (2005, pp. 243–244) explains how a Democratic leader in Logan County, West Virginia, accepted $35,000 in cash to support Senator Kennedy. As the Democratic leader explained, "this money was for one purpose: 'We bought votes with it [...] that's the way real politics works.' " Other examples are the famous primary election in March 1972 in Chicago (Campbell 2005, p. 262) and the elections in the coal-rich Appalachian Mountains during the 1980s (Campbell 2005, p. 275).

Dalh's Polyarchy Dimension	Dalh's Polyarchy Component	Experimental Operationaliz...
	Freedom to form and join organizations	Citizens can associate with othe...
	Freedom of expression	Media can confront the governm...
Formulate preferences	Right to vote	Citizens can vote in the next tw...
	Right of political leaders to compete for support	President can rule without Cong...
	Alternative sources of information	Media can confront the governm...
	Freedom to form and join organizations	Citizens can associate with othe...
	Freedom of expression	Media can confront the governm...
	Right to vote	Citizens can vote in the next tw...
Signify preferences	Eligibility for public office	Citizens can run for office for th...
	Right of political leaders to compete for support	President can rule without Cong...
	Alternative sources of information	Media can confront the Governm...
	Free and fair elections	

Table 1: *My caption*

IV. Studying Vote-Selling Multidimensionally: Classic and Support Vector Machines Approaches

Collected in 2016, the data (N=11,080) are representative at the national level.[4] Figure A1 shows the geographical distribution of survey respondents, grouped by party identification. The experiment was framed as a study about crime in the United States, not as a study about vote selling.[5] While pretesting the study, it was decided that the experiment needed to mask a very serious felony (selling one's vote) among other equally serious felonies (such as stealing) and other less serious crimes (such as speeding or downloading music illegally from the Internet). Otherwise, the vote-selling item would have stood out among the other items, making it seem totally negative and undoable, and/or making the true purpose of the study obvious.

See Appendix for wording

To further prevent the possibility of biased answers when asking the direct question to individuals in the treated group, the direct question stated that the hypothetical possibility of doing one of the illegal things mentioned previously in the excerpt would be randomly assigned. However, all participants were directly asked whether they would be interested in selling their vote. Direct answers were then used to estimate the proportion of "liars."

---

[4]1108 respondents, everyone answering 5 with 2 each. *Research Now SSI* collected the data between March 2 and March 6. Survey respondents belong to the online panel owned and administered by SSI. Notice of IRB exemption Protocol #E16-292 is kept on file at the Office of Research and Regulatory Affairs of ☐ University.

[5]To isolate the risks and costs associated with engaging in any illegal activity, the next phrase was included: "assuming you would not go to jail."

As a follow-up, subjects answering "yes" to the direct question answered a pricing test that asked them to indirectly put a price on their votes. Following standard practice in marketing research, participants slid a handle indicating which price was considered "too cheap" for one's vote. The slide ranged from $0 to $1,000, in one-dollar increments. The idea was to capture the respondent's willingness to sell. The pricing test particularly measures the lowest bound at which the participant would perceive the least economic benefit that was still enough to make selling his/her vote interesting. Moving forward, the list experiment contemplated one control and two possible treatments, each with different vote-selling prices. Since pricing a vote is difficult and based on several pretests, an arbitrarily low ($100) or an arbitrarily high ($500) price appeared. Participants randomly assigned to the treatment condition answered only one of these two treatments. More than hard-pricing tests, these two treatments account for possible different elasticities that might have interacted with individual socioeconomic backgrounds, mainly defined by income.[6]

Before splitting the subject pool into the subjects' respective experimental conditions, participants were asked to read an excerpt describing four illegal activities (including vote selling).[7] All were formatted as news pieces. The idea was to explain "vote selling" to "newsreaders."

I.   Classic Conjoint Analyses

HB

II.   Leveraging Support Vector Machines with Conjoint Data

CQ

---

[6]Holland and Palmer-Rubin (2015, p. 1189) explain that "the poor are thought to be more susceptible to vote buying."

[7]See Appendix for wording.

REFERENCES

Argersinger, Peter (1985). "New Perspectives on Election Fraud in the Gilded Age." In: *Political Science Quarterly* 100.4, pp. 669–687.

Auyero, Javier (2000). "The Logic of Clientelism in Argentina: An Ethnographic Account." In: *Latin American Research Review* 35.3, pp. 55–81.

Bahamonde, Héctor (2020). "Still for sale: the micro-dynamics of vote selling in the United States, evidence from a list experiment." In: *Acta Politica* 0123456789.

Bahamonde, Hector (2018). "Aiming Right at You: Group versus Individual Clientelistic Targeting in Brazil." In: *Journal of Politics in Latin America* 10.2, pp. 41–76.

Bensel, Richard (2004). *The American Ballot Box in the Mid-Nineteenth Century.* Cambridge University Press.

Borges, Mariana (2019). "When Voters Help Politicians: Understanding Elections, Vote Buying, and Voting Behavior through the Voters' Point of View."

Bratton, Michael (Dec. 2008). "Vote Buying and Violence in Nigerian Election Campaigns." In: *Electoral Studies* 27.4, pp. 621–632.

Campbell, Tracy (2005). *Deliver the Vote: A History of Election Fraud, an American Political Tradition-1742-2004.* Carroll & Graf.

Carlin, Ryan and Mason Moseley (2015). "Good Democrats, Bad Targets: Democratic Values and Clientelistic Vote Buying." In: *The Journal of Politics* 1.77, pp. 14–26.

Corstange, Daniel (2012). "Vote Trafficking in Lebanon." In: *International Journal of Middle East Studies* 44.3, pp. 483–505.

Dahl, Robert (1971). *Polyarchy: Participation and Opposition.* Yale University Press.

Erie, Steven (1990). *Rainbow's End: Irish-Americans and the Dilemmas of Urban Machine Politics, 1840-1985.* University of California Press.

Fahrenthold, David (Oct. 2012). *Selling Votes is Common Type of Election Fraud.*

Foa, Roberto and Yascha Mounk (2016). "The Danger of Deconsolidation: The Democratic Disconnect." In: *Journal of Democracy* 27.3, pp. 5–17.

Foa, Roberto and Yascha Mounk (2017). "The Signs of Deconsolidation." In: *Journal of Democracy* 28.1, pp. 5–15.

Geddes, Barbara (1990). "How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics." In: *Political Analysis* 2.1, pp. 131–150.

González-Ocantos, Ezequiel, Chad Kiewiet de Jonge, and David Nickerson (Jan. 2014). "The Conditionality of Vote-Buying Norms: Experimental Evidence from Latin America." In: *American Journal of Political Science* 58.1, pp. 197–211.

Hicken, Allen et al. (May 2015). "Measuring Vote-Selling: Field Evidence from the Philippines." In: *American Economic Review* 105.5, pp. 352–356.

Hicken, Allen et al. (Mar. 2018). "Temptation in Vote-Selling: Evidence from a Field Experiment in the Philippines." In: *Journal of Development Economics* 131, pp. 1–14.

Holland, Alisha and Brian Palmer-Rubin (Aug. 2015). "Beyond the Machine: Clientelist Brokers and Interest Organizations in Latin America." In: *Comparative Political Studies* 48.9, pp. 1186–1223.

Imai, Kosuke, Bethany Park, and Kenneth Greene (Jan. 2015). "Using the Predicted Responses from List Experiments as Explanatory Variables in Regression Models." In: *Political Analysis* 23.02, pp. 180–196.

Jensen, Peter Sandholt and Mogens Justesen (July 2014). "Poverty and Vote Buying: Survey-based Evidence from Africa." In: *Electoral Studies* 33, pp. 220–232.

Khemani, Stuti (2015). "Buying Votes Versus Supplying Public Services: Political Incentives to Under-Invest in Pro-Poor Policies." In: *Journal of Development Economics* 117, pp. 84–93.

Leight, Jessica, Rohini Pande, and Laura Ralston (2016). "Value for Money in Purchasing Votes? Vote-buying and Voter Behavior in the Laboratory."

Levitsky, Steven and Daniel Ziblatt (2018). *How Democracies Die*. Crown.

Levy, Jack (Feb. 2008). "Case Studies: Types, Designs, and Logics of Inference." In: *Conflict Management and Peace Science* 25.1, pp. 1–18. arXiv: `arXiv:1011.1669v3`.

Michael, Adam and Tariq Thachil (Nov. 2018). "How Clients Select Brokers: Competition and Choice in India's Slums." In: *American Political Science Review* 112.4, pp. 775–791.

Nichter, Simeon and Michael Peress (July 2017). "Request Fulfilling: When Citizens Demand Clientelist Benefits." In: *Comparative Political Studies* 50.8, pp. 1086–1117.

Oliveros, Virginia (2016). "Making it Personal: Clientelism, Favors, and Public Administration in Argentina." In: *Comparative Politics* 48.3, pp. 373–391.

Posada-Carbó, Eduardo (1996). *Elections before Democracy: The History of Elections in Europe and Latin America*. Eduardo Posada-Carbó. Palgrave Macmillan.

Reynolds, John (1980). "'The Silent Dollar': Vote Buying in New Jersey." In: *New Jersey History* 98.3, pp. 191–211.

Sabato, Hilda (Oct. 2001). "On Political Citizenship in Nineteenth-Century Latin America." In: *The American Historical Review* 106.4, p. 1290.

Stokes, Susan et al. (2013). *Brokers, Voters, and Clientelism: The Puzzle of Distributive Politics.* Cambridge University Press.

Szwarcberg, Mariela (2013). "The Microfundations of Political Clientelism. Lessons from the Argentine Case." In: *Latin American Research Review* 48.2, pp. 32–54.

Wantchekon, Leonard (2003). "Clientelism and Voting Behavior: Evidence from a Field Experiment in Benin." In: *World Politics* 55.April, pp. 399–422.

Weitz-Shapiro, Rebecca (2012). "What Wins Votes: Why Some Politicians Opt Out of Clientelism." In: *American Journal of Political Science* 56.3, pp. 568–583.

Weitz-Shapiro, Rebecca (2014). *Curbing Clientelism in Argentina: Politics, Poverty, and Social Policy.* Cambridge University Press.

```
## Warning in paste0("package:", package):  NAs introduced by coercion to integer range
## Warning in paste(nof2, ".tex", sep = ""):  NAs introduced by coercion to integer
range
## Warning in paste("system('texcount -inc -incbib -total -sum ", noftex, "', intern=TRUE)",
:  NAs introduced by coercion to integer range
## Warning in prettyNum(.Internal(format(x, trim, digits, nsmall, width, 3L, :  NAs
introduced by coercion to integer range
## Warning in paste0("[0-9]{", big.interval + 1L, ",}"):  NAs introduced by coercion
to integer range
## Warning in paste0("[0-9]{", big.interval + 1L, ",}"):  NAs introduced by coercion
to integer range
## Warning in FUN(X[[i]], ...):  NAs introduced by coercion to integer range
## Warning in paste0("([0-9]{", big.interval, "})\\B"):  NAs introduced by coercion
to integer range
## Warning in paste0("([0-9]{", big.interval, "})\\B"):  NAs introduced by coercion
to integer range
## Warning in FUN(X[[i]], ...):  NAs introduced by coercion to integer range
## Warning in paste0("\\1", revStr(big.mark)):  NAs introduced by coercion to integer
range
## Warning in FUN(X[[i]], ...):  NAs introduced by coercion to integer range
## Warning in paste0(B., c(decimal.mark, "")[iN + 1L], A.):  NAs introduced by coercion
to integer range
```

.... **Word count**: 2,169 ....

V. Appendix

I.   Appendix

II.   Experimental Manipulations and Vignettes

Distractor Paragraph.   The next paragraph was used to distract subjects from the main purpose of the study, and also to define vote selling.

Washington, D.C.– A department store downtown had a robbery incident last week, reportin

Direct Question.   All subjects read the next paragraph, and then *all* answered the direct question:

Now you will be entered into a random lottery for the opportunity to do ONE of the illeg

After a random assignment, you have been selected for the opportunity to hypothetically

II

III. Geographical Distribution of Survey Respondents
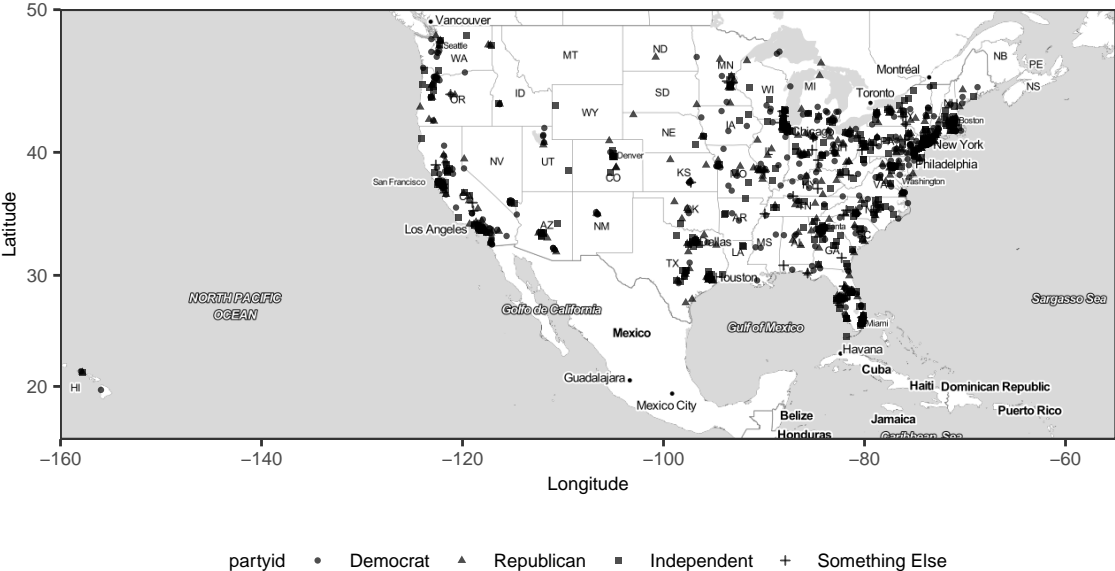

Figure A1: *Geographical Distribution of Survey Respondents by Party Identification.*

Es nuestro approach causal inference? Al menos si cumple con 3 assumptions en Hainmueller2014a. Estas son dadas por el diseno del experimento.