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PLUGGED IN BROKERS: A MODEL OF VOTE-BUYING AND ACCESS TO RESOURCES

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Available formal models portray brokers as exploitative agents who buy their clients at the minimum possible price; that is, at voters' reservation values. If this were the case then we should expect that poor voters be indifferent as to which broker they deal with, since they could expect the same minimum price from any broker. On the contrary, evidence of long-term broker-client relationships suggests that clients do care about who their broker is. The formal model in this paper, in correspondence with evidence drawn from 120 interviews with brokers, illuminates the reason why clients care about who their brokers are. Brokers are uncertain about voters' reservation values. Due to this uncertainty, the more resources brokers obtain, the more they transfer to clients to assure their votes. Given this uncertainty over reservation values, voters benefit from brokers' abilities to access more resources. These dynamics account for party machines' frequent electoral hegemony.

JEL classification codes: P16, O17, D72

Key words: vote-buying, clientelism, party machines, reputation, brokers

I. Introduction

“He does not give me everything that I want, but he supplied me with school uniforms for my children and he always helps me out with food. If I go to somebody else I might well end with less than that. He has my loyalty.”

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This statement by a poor woman from a slum in the outskirts of Buenos Aires illustrates two important facts about vote-buying. First, clients care about who their brokers are. Second, and relatedly, brokers and clients develop enduring relationships that can even last decades. The formal model in this paper shows the logic that sustains these facts that are often neglected by existing formal models. The model highlights a frequently and surprisingly ignored feature of clientelism: brokers and clients can benefit together from brokers' skills to access increasing resources. These findings allow us not only to better understand stable broker-client relationships, but also to account for party machines' consistent electoral hegemony. Incumbent party machines can supply their brokers with ample resources who in turn assure with these resources the voters' support for the party. Voters support brokers with access to ample resources because they benefit from them. Furthermore, by introducing brokers' uncertainty about reservation values, this model provides a theoretical basis for analyzing the determinants that shape the level of clientelistic transfers from brokers to voters.

Brokers (called *punteros* in Argentina) are neighborhood party agents deeply immersed in poor areas that mediate between their bosses—politicians seeking voters' support—and poor people. They receive goods from their party bosses that they discretionally distribute to voters in order to garner their electoral support. Existing formal models on vote-buying (Stokes 2005; Nichter 2008; Cox and McCubbins 1986; Zarazaga 2015) usually assume complete information; that is, brokers know the exact price at which voters will sell their votes and, accordingly, brokers buy each voter at her reservation value (the lowest level of benefits for which a voter will sell her vote).¹ These models present brokers as having all or most of the bargaining power when buying clients' vote.² In Stokes' seminal work (2005), for example, any broker that decides to buy a voter will offer her exactly the same reward. If this were indeed the case, each poor voter should be indifferent as to which broker they deal with because all brokers would equally hold them down to the same minimum price. However, the evidence show that voters care

¹ From now on, I use masculine for brokers and feminine for voters.

² An exception to this is the interesting work by Nichter and Peress (2013) in which voters can initiate demands on their brokers threatening them to vote for the opposition.

about who their brokers are and develop long-lasting relationships with them (Auyero 2001; Finan and Schechter 2012; Stokes et al. 2013; Zarazaga 2014).

Becker's (1983) seminal model of competition among pressure groups stressed that some groups can be more efficient than others at buying votes. Some later works on vote-buying add to the literature by modeling party boss and broker interactions and showing that not all the brokers are the same (Kemahliolu 2012; Stokes et al. 2013). Kemahliolu (2012) shows how intraparty competition between a party boss and his follower, that can be called a broker, may affect the distribution of patronage jobs. Stokes et al. (2013: 79) show that brokers' interests may not overlap with those of their bosses and that brokers "...differ in their capacity to solve voters' problem". The model in this paper builds on these previous works in assuming that not all the brokers are the same and that they vary in their skills to access resources from their bosses. However, the fact that a voters' welfare vary with the skill of her broker distinguishes this analysis from previous models.

Following Becker (1983), in this model brokers differ in their skills to deliver to voters and voters sell their votes at different prices. However, in contrast with Becker's model, in this model it is not the voter but the broker who has incomplete information. Upon receiving resources from their party bosses, brokers promise part of these resources to voters in exchange for their votes and keep the rest for themselves. A broker will be fired if his boss does not win the election; therefore each broker has a vested interest in his boss's electoral success. Contrary to the assumption made by existing models, brokers are not certain about each voter's reservation value. Due to this uncertainty, the more resources that a broker is able to obtain, the more he will transfer to his clients, so as to reassure his clients' votes and retain his own position and future rent. As a broker's access to resources increases, not only does the broker's profit increase but the client's profit does as well. Therefore, voters benefit from brokers' abilities to access more resources.

As in Robinson and Verdier (2013), in this model politicians and voters can increase their continuation utility with clientelistic strategies. However, this model makes a contribution by making explicit the particular mechanism that ties brokers' skills to client's welfare. A combination of three factors explains why clients care about who their brokers are: (a) brokers' varying level of skills at accessing resources, (b) the repeated nature of the game, and (c) brokers' uncertainty about voters' reservation values. By delving deeper into the micro-foundations of broker and client relationships, this paper seeks to better understand macro-level

phenomena such as the tendency for a single machine party to become hegemonic in a party system. The formal model in this paper predicts that voters achieve a higher welfare in the presence of brokers with access to sizeable resources than previous formal model predicted. When a party machine's brokers enjoy access to resources their clients stick to them, making it hard for other parties to defy this party machine. Across time and countries party machines have established political dominance dispatching brokers to distribute goods to voters and cement their support. The New York political machine Tammany Hall, the Taiwanese Kuomintang, the Mexican Revolutionary Institutional Party, and the Argentine Peronist Party (i.e., the PJ or *Partido Justicialista*) are some examples.

By focusing on brokers' access to resources, this paper bridges two strands in the present literature about vote-buying and brokerage. Over the course of intensive fieldwork, past researchers have observed the stability of broker-client relationships (Auyero 2001; Finan and Schechter 2012; Zarazaga 2014). However the formal literature has yet to produce a rational explanation for this phenomenon. While politicians are portrayed as rational, self-interested actors, the poor are portrayed as myopic and altruistic actors. The poor support their brokers either because they are culturally or affectively identified with them (Auyero 2001; Ostiguy 1998) or in order to show gratitude to them (Finan and Schechter 2012). On the other hand, authors who portray the poor as being rational and self-interested fail to recognize the fact that clients care about which broker they support (Dixit and Londregan 1996; Stokes 2005; Nichter 2008; Zarazaga 2015). The present paper shows that although a client's behavior is motivated by self-interest, clients still care about which broker they work with, because a broker's skill at accessing resources affects the client's well-being. In contrast with previous models that tend to present brokers as exploiters with all the bargaining power, this model shows that voters can extract an informational rent and that brokers and voters can benefit together from brokers' increasing access to resources. In the next section, I present some evidence illustrating broker and clients' relationships to motivate the formal analysis.

II. Brokers, voters and resources in Argentina

The literature on vote-buying and brokerage has given the most attention to the Peronist Party in Argentina (Auyero 2001; Levitsky 2003; Brusco et al. 2004; Stokes 2005; Nichter 2008; Kemahlioglu 2012). There is a broad consensus among

scholars that the only party with a network of brokers extensive enough to permeate most of the poorest areas in Argentina is the Peronist Party (Levitsky 2003; Brusco, Nazareno, and Stokes 2004; Calvo and Murillo 2013). For this reason, and given that scholars have long attested to the PJ machine's extraordinary record of electoral success (Levitsky 2003; Calvo and Murillo 2004), I motivate the formal analysis with evidence drawn from 120 in-depth interviews with Argentine brokers from the *Conurbano Bonaerense* (CB), 112 of which were Peronist (see Appendix).

Brokers mediate between their bosses—politicians seeking voters' support—and poor people. They distribute to voters the goods and services that their bosses grant them to garner votes. The evidence shows that access to resources is crucial for brokers. When asked what they needed to fulfill their political goals, 72 percent (86) of the brokers mentioned having access to resources. As one broker declared:

“90 percent of my problem is to keep connections in the municipality. If you have friends there, then doors will open when you knock. It is not easy, you need to be here in the streets of the neighborhood listening to people's needs, but also at the municipality getting resources.”³

Similarly another broker told me, “It is about getting as many resources as you can. Once the people know that you handle plentiful resources, they will not leave you.”⁴ Brokers invest a considerable share of their time in developing connections that allow them “to knock on doors” and access resources.

Brokers' narratives show that brokers keep for themselves part of the resources which is given to them by their bosses for distribution to clients. Brokers regularly accused other brokers of siphoning off resources for themselves or their families. Even though it is illegal, eight brokers admitted to keeping 10 percent of the monthly salaries of individuals to whom they had given workfare programs. One of them told me: “We all do the same. Do not believe them if they tell you otherwise. I only ask for 10 percent but some even ask for 50 percent of the salary.”⁵ The largest existing workfare program in Argentina, launched in 2009, was officially

³ Interview by the author with a PJ broker in a CB municipality on August 16, 2009.

⁴ Interview by the author with a PJ broker in a CB municipality on August 23, 2009

⁵ Interview by the author with a PJ broker in a CB municipality on October 21, 2010.

named “Argentina Works”, however because brokers often keep a percentage of beneficiaries’ salaries to excuse them from work, the program is nicknamed in poor neighborhoods “Argentina Rests”. Brokers regularly comment that other brokers often keep for themselves part of the food handouts that they receive to distribute among voters. One interviewed broker, for example, was very upset with a fellow PJ broker because in the last election,

“[the mayor] gave us food handouts with everything: noodles, soups, oil, sugar, flour, yerba... but he kept for himself the most expensive items like sugar, oil, and flour. The poor people only got the noodles. It is unfair. I understand you need to make a living, but just keep the oil not the sugar and the flour too. I only keep the oil for myself.”⁶

Stokes et al. (2013: 117) present the same finding. They asked to brokers how many out of every ten brokers keep for themselves benefits that the party gives them to distribute to voters. They find that 90% of 640 respondents thought at least some brokers extracted rents not intended for them. However, not all the brokers are equally successful at making a rent from redistributing resources. They vary in many aspects including their skills to access resources. Stokes et al. (2013: 79), for example, highlight that “Some brokers are especially knowledgeable about job market opportunities for unemployed neighbors or about upcoming food-distribution events; others are less knowledgeable or energetic”. From direct participation I found that in poor neighborhoods of Argentina people specifically distinguish between “plugged in” brokers and “smoke merchants” (in Spanish *vende humo*, meaning someone that pretends to have what he/she does not have). A plugged in broker is sufficiently well-connected to politicians in office and therefore has access to enough resources to fulfill generous promises. A “smoke merchant” is a broker who lacks connections and, as a consequence, ends up giving meager rewards. As brokers make a rent from keeping a portion of the resources they receive for themselves, plugged in brokers that receive more resources extract more rents.

⁶Interview by the author with a PJ broker in a CB municipality on August 12, 2009.

Nonetheless, not only do brokers benefit from handling increasing resources, their clients do too. Even though brokers have very fine-grained information about their clients, they are uncertain of exactly how much goods they need to transfer to voters to assure their votes. During the interviews brokers express a degree of uncertainty about their clients' political behavior. They admit that they are never sure whether or not their transfer has secured the vote of their client. A broker, for example, declared, "Some voters just judge that you have not helped them out enough and vote for your rival."⁷ Another one said, "You do not want to overpay them, but the risk of being short is always there." Revealing that brokers cannot know for sure voters' reservation values, this broker explained that he used food coupons for US \$12 and for US \$25 to buy votes and that he "needed to be careful because [the voters] pretend that they will go to another broker just to get the bigger ones."⁸ Due to this uncertainty, the more resources brokers obtain the more they transfer to their clients to assure their votes.

Brokers do not know the minimum price to garner a voter's support. Therefore, as brokers' resources increase they tend to increase the transfers to their clients to assure their support. Voters prefer to deal with a plugged in broker rather than with a smoke merchant, because the better the broker's access to resources, the bigger the benefit for voters. Clients perceive their welfare to be tied to the amount of resources that their brokers can secure. An old man from a slum stated it clearly, "If Carlos [his broker] does well, so do we. He knows that he cannot improve only his personal situation. If he gets resources he helps us too. The better he is, the better we are."⁹ Brokers' perceptions match that of their clients. A broker proudly explained that he had received more support from the Mayor as of late, and that with that support he was able to improve not only his personal welfare but also that of his group:

"I am handling many more resources now than a year ago. I have 60 positions in cooperatives. We are doing fine. I got a new car and a new house. But my people are also doing better. Now they are getting a

⁷ Interview by the author with a PJ broker in a CB municipality on July 4, 2010.

⁸ Interview by the author with a PJ broker in a CB municipality on October 21, 2010.

⁹ Interview by the author with a slum dweller in a CB municipality on October 21, 2010.

much better income than a year ago and I always have a 100 peso bill to slip in their pockets as an extra reward. Now it will be hard for anyone to defy me in my territory.”¹⁰

Another broker explained the same dynamic with a nice metaphor,

“When you work hard and get a bigger cake, you cannot eat it all by yourself. It would kill you. When you get a bigger cake you share more with your group. They will be happier and more trustable for you.”¹¹

Also a broker narrated:

“Many people follow me, at least 140 people. I move three buses. Thank God people are responsive to my calls. They follow me because I was never cheap to them. If I eat beef, they eat beef too. You cannot be in this business for too long if you keep all the best stuff for yourself and only distribute the crumbs.”¹²

Voters achieve higher welfare from dealing with “plugged in” brokers and, consequently, they support these brokers. Upon accessing sizeable resources brokers can keep their positions for lifetime. The average age of brokers is 48 years and their tenure is 19 years. Overall the evidence shows that brokers and clients develop enduring relationships that can last even decades (Auyero 2001; Finan and Schechter 2012; Stokes et al. 2013; Zarazaga 2014). When I asked why the relationships with their clients were so stable, brokers uttered phrases such as “I always have my people in good conditions,” “if you want their loyalty you better be generous with them,” and “if you are too cheap, sooner or later they will find someone that helps them more than you do and they will leave you.” The counterpart to this story is given by brokers that do not have access to resources and, therefore, are not able to generously deliver to their clients. A

¹⁰ Interview by the author with a PJ broker in a CB municipality on December 3, 2010.

¹¹ Interview by the author with a PJ broker in a CB municipality on July 7, 2009.

¹² Interview by the author with a PJ broker in a CB municipality on July 11, 2010.

broker explained, “Here it is distribute or disappear. Once you are not able to deliver food, mattresses, or anything you are out of the game, probably forever.”¹³

Voters benefit from brokers that access sizable resources and establish long lasting relationships with these brokers. Because brokers are uncertain about voters’ reservation values, the more resources they receive, the more they promise to their followers to gain their support and maintain their positions. When dealing with brokers with access to sizeable resources, most clients in fact receive transfers in excess of their reservation values. The model in the next point captures these dynamics.

III. Model

In this model, I capture how brokers’ skills for accessing resources—given their uncertainty over voters’ reservation values—affect voter’s payoffs. Brokers receive resources from the candidates they endorse and decide what portion to keep for themselves and what portion to offer voters for their votes. Brokers face a trade-off between promising more to voters (increasing their probability of being supported and reinstated upon his candidate winning) and keeping a bigger portion of the pie for themselves.

The model shows that when brokers have access to ample resources they will make bigger offers to voters because they have more at stake in maintaining their job in the party machine. For example, a broker that distributes several public jobs makes more rent from keeping for himself 10 percent of his clients’ salary at every round rather than reaping 50 percent in just one round and losing his clients’ support and future rent. If they take less for themselves and offer more to the voters, they will remain as brokers, receive resources in the future and be able to take more for themselves over time. And when brokers with access to resources make offers in excess of voters’ reservation values, voters benefit. To capture this mechanism, I develop a model in which the broker’s ability to access resources is characterized by a value $\alpha \in [0,1]$. A broker (B) will have access to resource level $\pi \in \{\bar{\pi}, \underline{\pi}\}$, where $\bar{\pi} > \underline{\pi}$, and $\bar{\pi}$ is drawn with probability α , and

¹³ Interview by the author with a PJ broker in a CB municipality on October 15, 2009.

$\underline{\pi}$ with probability $1 - \alpha$. A higher α indicates a higher quality broker. A broker with high α is a broker with strong relationships with politicians who provide him with sizeable resources; i.e., a plugged in broker that can “knock on doors”. On the contrary, a broker with a low α does not have many valuable contacts and can only access meager resources. I simplify the model by assuming that all brokers entering the game after the initial broker will possess the same skill α that was assigned to the initial broker. A main result of the paper is to show that a voter’s utility is increasing in α .¹⁴

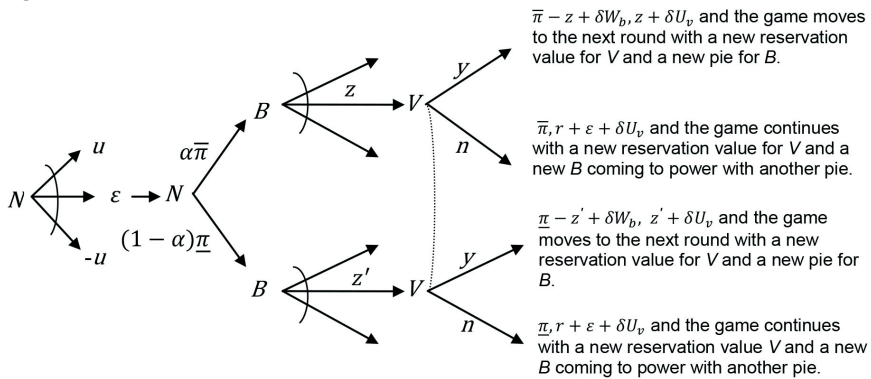
The game is depicted in the tree in Figure 1. First, the voter (V) that plays the game has a payoff for voting for her own candidate; $r + \varepsilon$. Because this is the minimal amount that B would have to pay to switch her vote in favor of his candidate, we refer to it as the voter’s reservation value. This reservation value captures voters’ preferences for a candidate based on ideology, policy, and/or partisan attachment. Since the economic and political situation changes from one electoral term to the other, the voter’s reservation value $r + \varepsilon$ also changes. Thus, we assume that ε is drawn for V at the beginning of each round from a uniform distribution between u and $-u$. This captures that voters have different reservation values. For example, a food handout is enough to assure the vote of some clients, while others demand more expensive goods as a house or a public job. The value r represents public information relevant to the voter’s reservation value while the value ε represents private information; broker B has the correct belief that $\varepsilon \sim u [u; -u]$, however B is unsure of the exact value of ε . In other words, V knows her own reservation value but B only knows that it falls between $r - u$ and $r + u$.

Second, a broker B comes to power and, depending on his ability α to secure resources, he will receive from his boss an amount of resources $\bar{\pi}$ or $\underline{\pi}$. A broker with a high α will probably receive a lot of resources, for example workfare programs, food handouts, money, building material, etc., while a broker with a low α may just get a few food handouts. Conditional on the size of the pie available to him, B next makes an offer to secure the voter’s vote. Let $z_t \in \{0, \bar{\pi}\}$ be the offer

¹⁴ A more general model would allow for a range of brokers. When the existing broker is replaced, another is drawn from the distribution of brokers and the voter is uncertain of the broker’s quality. This more general model, however, would make the analysis much more complicated.

at time t if $\pi = \bar{\pi}$, and $z' \in [0, \underline{\pi}]$, be the offer at time t if $\pi = \underline{\pi}$. After receiving B 's offer, the voter decides whether or not she will accept the offer and support B 's candidate. If the voter accepts B 's offer then they both move to the next round which starts with a new reservation value for the voter and a new pie $\pi \in \{\bar{\pi}, \underline{\pi}\}$ for B . If the voter rejects B 's offer, then B exits the game and the next round starts with a new B coming to power and receiving a pie $\pi \in \{\bar{\pi}, \underline{\pi}\}$, and the voter learning her new type ε .

Figure 1. Game tree



Note: δW_b and δU_v are respectively B and V 's discounted future payoffs as defined further below.

I will now explain how the players derive utility. In this game, the voter derives utility from voting for her preferred candidate (as measured by her reservation value for voting for B 's candidate) and from B 's transfers. If the voter does not accept B 's offer, she votes for her own candidate, receives her reservation value $r + \varepsilon$, and moves to the next round in which a new B will make her a new offer. If the voter accepts B 's offer, she receives the offer and both players move to the next round in which B will make a new offer. Note that because our model assumes each successive broker's skill α to be identical to the initial broker's, all brokers will make in equilibrium the same offer given the same amount of pie. Therefore, over any given history, the voter's payoff is given by the discounted sum of the maximum of each period's offer and her reservation value. As in previous work (Alesina and Rosenthal 1995; Zarazaga 2014), I assume that voters vote for their

preferred candidate because they vote as if they were pivotal. A brokers' future does not depend only on their bosses' overall electoral success but also on the results at the voting booth. At the disaggregated level of the voting booth clients do not know whether or not they are pivotal. Voters with brokers with access to resources have strong incentives to keep their brokers; knowing that their brokers will keep their position as long as they are successful at the voting booth, the voters will protect their own interest by voting for the brokers' candidates. Given that clients do not want their broker to lose but know that their vote may be decisive for their broker's fate, voters do not renege on their commitment to their brokers.

B gains utility from the portion of the pie he keeps for himself in each round he plays. If the voter does not accept his offer, B keeps the entire $\pi \in \{\bar{\pi}, \underline{\pi}\}$ for himself but loses his position as a broker. If the voter accepts his offer, B receives that period's available pie minus the offer, and moves to the next round where he will receive a new pie and make a new offer to the voter. As I assume V fulfills her part of the deal, B will stay in power as long as V accepts his offers.

A. Strategies

A behavioral strategy for B has to specify the offer he is going to make to V each period as a function of whether he received $\bar{\pi}$ or $\underline{\pi}$ in that period, his beliefs about the voter's type, and the preceding history of offers and replies. A behavioral strategy for V has to specify the voter's reply to each possible offer she could receive from B in any round given her type and the preceding history of offers and replies (for a more technical definition see the discussion of strategies in the Online Appendix). In the following section I characterize the class of equilibria of interest, but not before I lay out some assumptions that simplify the game's analysis.

B. Equilibrium

To simplify the model, I assume that $\underline{\pi} < r - u$. Therefore, in the event that B receives $\underline{\pi}$, the voter's reservation value would be larger than the available pie. Substantially, in this case B does not have a budget big enough to buy V . This simplifies the game since, as I explain below, when B receives $\underline{\pi}$ his offer will always be rejected by V regardless of her type. On the other hand, I assume

$\bar{\pi} \geq r + u$. This insures that upon receiving $\bar{\pi}$, B can afford to buy off any type of voter. When receiving $\bar{\pi}$, B faces a trade-off between promising more to the voter (increasing his probability of remaining as the broker) and keeping a bigger portion of the pie for himself. While these assumptions simplify the problem, they do not prevent the model from retaining the essential dynamic of interest, that is, that voters benefit from brokers' skills to consistently access ample resources.

The environment underlying this game is static in the sense that the only variables that should be of interest to the broker are the size of the available pie and the type of voter in each round. Similarly, the voter is indifferent over past actions and cares only about the offer of that period's broker. Note that all the brokers have the same ability α to access resources in this game. If one broker is rejected, a new broker comes to power who is indistinguishable from the rejected one; all the brokers are identical. Thus, I can further simplify things by focusing on Markov Perfect Equilibria (MPE). In an MPE, the players' strategies depend only on the current state, here defined by π . As such, players choose their action as a function of the current state, independent of preceding history. Because each broker is the same and voters' strategies do not account for past history (there are no punishment strategies), MPE ensures that the continuation value for voters is constant over time and behavior. This makes the problem tractable as the solution reduces to finding B 's optimal offer and a threshold for V to accept an offer. I focus next on finding these.

Given that there are no punishment strategies and that brokers are of the same type, the voter's strategy depends only on the offer she receives and her myopic reservation value. The voter accepts or rejects B 's offer by comparing only the value of the offer in that round to her myopic reservation value $r + \varepsilon$. Whether or not she accepts the offer has no effect on her continuation value, which will remain the same because the new broker will be identical to the rejected one. Therefore, for the unique pure MPE of this game, the voter's strategy is rather simple:

Accept any offer $z \geq r + \varepsilon$;
 Reject any offer $z < r + \varepsilon$.

In the case of B 's strategy, it is clear that if he receives the small pie $\underline{\pi}$, B cannot buy the voter's support because $\underline{\pi} < r - u$, so any offer $z' \in [0, \underline{\pi}]$ is payoff equivalent for him. Whatever offer he makes will be rejected and he will keep $\underline{\pi}$ for himself and exit the game. In reality, this is what happens to brokers when they

do not have access to substantial resources and end up making meager promises. Voters do not support them and they lose their positions.

On the other hand, if B receives $\bar{\pi}$, B can make an offer z to gain the voter's support. His optimal offer z gives the maximum of the utility of having the pie $\bar{\pi}$ and of making an offer that can be accepted or rejected by the voter. Besides securing her vote and his own position as a broker, B is also interested in keeping as much of the pie $\bar{\pi}$ for himself as possible. The broker faces a maximization problem in which he needs to find the optimal offer. Formally, conditional on having $\bar{\pi}$, B maximizes

$$P_b(z) = \left[\bar{\pi} - z + \delta \left((1 - \alpha)\underline{\pi} + \alpha P_b(z) \right) \right] \frac{z-r+u}{2u} + \bar{\pi} \left(1 - \frac{z-r+u}{2u} \right), \tag{1}$$

The first term of $P_b(z)$ captures what B gets if his offer is accepted. Note that if his offer is accepted then B gets the pie minus the offer, plus the discounted value of being the broker in the next round, where $\delta \in [0,1]$ is a common discount factor and $(z - r + u)/(2u)$ is the probability that $z \geq r + \varepsilon$ given that $\varepsilon \sim u [-u; u]$; that is, the probability that the voter V accepts the offer z . The second term of $P_b(z)$ captures what B gets if his offer is rejected; he simply keeps the big pie $\bar{\pi}$. The factor $1 - (z - r + u)/(2u)$ multiplying $\bar{\pi}$ in this second term is the probability that $z \geq r + \varepsilon$; that is, the probability that the voter rejects the offer z .

Given that the broker receives the big pie $\bar{\pi}$, $P_b(z)$ is his payoff for a given offer z . Because B only decides over an optimal offer when he receives $\bar{\pi}$, we can solve B 's maximization problem conditional on B having $\bar{\pi}$. The first order condition of $P_b(z)$ with respect to z , is quadratic on z . Solving it yields,

$$z = \frac{1}{\alpha\delta} \left(2u + r\alpha\delta - u\alpha\delta \pm \sqrt{2u} \sqrt{\frac{1}{u} (2u + r\alpha\delta - \underline{\pi}\alpha\delta^2 + \underline{\pi}\alpha^2\delta^2 - u\alpha\delta - \bar{\pi}\alpha^2\delta^2)} \right). \tag{2}$$

Only the negative solution to the square root (that I denote from now on by \tilde{z}) is within the feasible values (Online Appendix, Lemma 1) and a maximum (Online Appendix, Lemma 2). Therefore, I can next formally characterize the proposed equilibrium and prove its existence.

PROPOSITION 1. There is a unique pure MPE.

Voter V's strategy is: accept any offer greater than or equal to her myopic reservation value, $r + \varepsilon$, and reject otherwise.

Broker B 's strategy is:

(i) upon receiving $\underline{\pi}$, offer $z' \in [0, \underline{\pi}]$, and

(ii) upon receiving $\bar{\pi}$, offer $z^* = \begin{cases} [0, r - u] & \text{for } \tilde{z} < r - u \\ \tilde{z} & \text{for } r - u \leq \tilde{z} \leq r + u \\ r + u & \text{for } \tilde{z} > r + u, \end{cases}$

where $\tilde{z} = \frac{1}{\alpha\delta} \left(2u + r\alpha\delta - u\alpha\delta \pm \sqrt{2u} \sqrt{\frac{1}{u} (2u + r\alpha\delta - \underline{\pi}\alpha\delta^2 + \underline{\pi}\alpha^2\delta^2 - u\alpha\delta - \bar{\pi}\alpha^2\delta^2)} \right)$.

Here I sketch a heuristic proof. It is easy to see that the voter's strategy is optimal. If the state is $\underline{\pi}$, meaning that B received a small pie, the voter would reject any offer $z' \in [0, \underline{\pi}]$ because $\underline{\pi} < r - u$ and the continuation value because every broker would make the same offer. Substantially, in this case the voter is too expensive for the broker's budget.

If the state is $\bar{\pi}$ and $z < r + \varepsilon$, then in the present round the voter derives more utility from supporting the candidate she prefers ($r + \varepsilon$) than from supporting B 's candidate and receiving z . Also her continuation value δU_v is the same as if she rejects it because all the brokers are identical. Therefore, by accepting an offer $z < r + \varepsilon$, the voter would do worse in the present round and would receive the same continuation value as she would if she rejected. Clearly, the voter never accepts an offer $z < r + \varepsilon$.

By the same argument, it is not optimal for the voter to reject an offer $z \geq r + \varepsilon$. The voter would do worse in the current period and get the same continuation value in the future as she would if she had accepted. In this case V extracts an informational rent because B makes an offer that exceeds V 's reservation value.

Regarding B 's strategy, we have already seen that if B receives $\underline{\pi}$ any offer $z' \in [0, \underline{\pi}]$, would be an optimal offer for him because it would always be rejected by the voter. If B receives $\bar{\pi}$, then he faces the maximization problem I solved above. If the solution is \tilde{z} with $r - u \leq \tilde{z} \leq r + u$, then the optimal offer z^* is interior and $z^* = \tilde{z}$.

Making a promise $z > r + u$ is always suboptimal for B , as he would be spending more resources than needed to secure the support of even the voter with the highest possible reservation value $r + u$. Promising z strictly above $r + u$ does not increase B 's utility but decreases her current consumption. Therefore, if the $\tilde{z} \geq r + u$ then B offers $z^* = r + u$. Also note that any offer $z < r - u$ would always be rejected. Therefore, if $\tilde{z} < r - u$, then any offer $z \in [0, r - u]$ is payoff equivalent for the broker in equilibrium.

The strategies specified in Proposition 1 thus constitute a subgame perfect equilibrium. As I have shown, neither the broker nor the voter can increase utility by making any changes in their strategies at the start of a subgame in which they are moving. In Proposition 1 in the Online Appendix, I offer a formal proof showing that if, in practical terms, B is not absconding (he is not making an offer smaller than $r - u$) then in equilibrium his optimal offer z^* is unique. I next discuss the properties of this equilibrium.

IV. Brokers' access to resources and clients' wellbeing

I prove in this section that given brokers' uncertainty about voters' reservation values, a voter's welfare improves with the skill of her broker at accessing resources. First, note that the size of the transfer the broker promises to the voter increases in the broker's skills to access resources. The partial derivatives of the optimal offer z^* with respect to α is positive; $dz^*/d\alpha > 0$ (see Online Appendix, Proposition 2, for a formal proof). A broker that has skills knows that in the next rounds he will probably access sizeable resources again and make a good rent if he keeps his position. This broker sacrifices immediate rent to reassure to the possible extent the future flow of rents. As he does not know the voter's reservation value, he increases his offer to secure as much as possible the voter's support. This is what the poor voter captured when saying about his broker: "If he gets resources he helps us too. The better he is, the better we are."

Second, note that the offer does not only increase with the broker's skills but also with the size of the available pie. It may be thought that if the pie of resources the broker access increases considerably, the broker would be tempted to make a smaller offer and keep more for himself. However, this option is outweighed by the option of making a more generous offer and increasing the probability of keeping his position. The positive partial derivative of the optimal offer z^* with respect to $\bar{\pi}$; $dz^*/d\bar{\pi} > 0$, proves that the bigger the budget B handles, the more the broker offers to the voter (see Online Appendix, Proposition 3, for a formal proof). The substantive interpretation of this is that as the size of the available $\bar{\pi}$ increases, the more B has at stake in being the broker in the next round and cashing in the difference between the big pie $\bar{\pi}$ and the offer he makes, z^* . Thus, in response to an increase in $\bar{\pi}$, the broker will improve his chances for winning the voter's support by increasing his offer z^* . As one of the fellow brokers said "when you get a bigger cake you share more with your group. They will be happier and more trustable for you."

Having proved that brokers with access to resources transfer more to voters to assure their future rents, it is easy to see then that the voters' wellbeing improves with brokers' increasing skills to access resources. Given that as B 's skills to access resources increases, the offer z^* increases as well, the voter's equilibrium payoff rises with B 's increasing skills. This is proved by the positive partial derivative of the voter's equilibrium payoff, denoted by $U_v(z^*)$, with respect to α ; $dU_v(z^*)/d\alpha > 0$ (see Online Appendix, Proposition 4, for a formal proof). Substantially, brokers with increasing access to resources make bigger offers and voters' utility rises. This explains why a voter cares about the identity of her broker—every voter with a reservation value smaller than the offer z^* benefits from brokers' increasing abilities to access resources. Brokers making offers in excess of voters' reservation values improve voters' wellbeing. Logically the probability that the voters' accept the offer increases also in broker's skills to access resources. As mentioned before, the slum dweller neatly explained these dynamics when she said “the better he is (referring to her broker), the better we are”. This model proves what have been largely ignored by previous models; brokers and voters can benefit together from brokers access to resources.

V. Further implications: electoral hegemony

Political history is full of party machines that enjoy an electoral hegemony deploying brokers to distribute goods to voters; some examples are the Daley machine in Chicago, the Revolutionary Institutional Party in Mexico, and the Peronist Party in Argentina. By explaining voters' attachment to their brokers, this model sheds light into our understanding of party machines frequent electoral hegemony. An interesting consequence that arises from the model is that voters prefer brokers with more access to resources than with less. Hence, clientelistic parties that access office and control public resources can be hard to challenge; voters prefer to stick to their brokers because they benefit them.

The model shows that the better access to resources the brokers have, the better off the voters will be. While for the sake of simplicity this model featured only one type of broker, in reality clients face brokers that differ in their skills to access resources. In the language of the model α varies across brokers. Voters prefer to deal with plugged in brokers with high α , rather than with smoke merchants with low α , because the better the brokers' access to resources the bigger the benefit for voters. Let's illustrate this with an example using the technicalities of the model.

Suppose that a voter faces the option of dealing with a plugged in broker or with a smoke merchant. I denote the plugged in broker by $\bar{\alpha}$ and the smoke merchant by $\underline{\alpha}$. Since the plugged in broker has more access to resources than the smoke merchant, it can be established that $\bar{\alpha} > \underline{\alpha}$. Because the utility of the voter (U_v) is increasing in α (as was previously shown), the voter derives more utility from choosing to deal with the plugged in broker than with the smoke merchant; $U_v(\bar{\alpha}) > U_v(\underline{\alpha})$. Voters prefer to deal with plugged in brokers because they can expect more generous rewards from them. If voters know that brokers from a “pool A” have more access to resources than brokers from a “pool B”, they will prefer to deal with brokers in the former pool to those in the latter. Therefore, it is difficult for brokers from challenger parties to defy brokers from incumbent clientelistic parties. In Argentina these dynamics benefit PJ brokers as they have large networks of brokers and have controlled, since re-democratization in 1983, most of the executive positions which give access to state resources. For example, the PJ governs 30 out of the 33 mainly poor municipalities surrounding the capital city of Buenos Aires. These 33 municipalities, that receive the name of *Conurbano Bonaerense*, concentrate over one third of the national electorate. The PJ commands in this area large networks of brokers embedded in poor neighborhoods. With the municipal executive powers in its hands, the PJ brokers are plugged in and can distribute resources to clients. This helps to account for the PJ electoral hegemony in the *Conurbano Bonaerense*; since redemocratization in 1983, the PJ has won there 207 out of 247 elections (84 percent). People know that PJ brokers have better access to resources than other parties’ brokers and stick to them. One slum dweller of this area exemplifies this dynamic in saying that “every election new guys appear making promises; I remain loyal to Juan [his broker]. The new guys disappear after the election and I could end up with nothing. I prefer a bird in my hand than a thousand flying in the sky.”¹⁵ They do not see brokers as perfect substitutes, and consequently they develop long-term strategic loyalty with plugged in brokers. Confirming this from the broker’s perspective, one Peronist broker commented, “People know that I am not one of those smoke merchants that never solve problems for them. I have been here helping them for years. That is why they are always with me.”¹⁶

¹⁵ Interview by the author with a slum dweller in a CB municipality on November 25, 2010.

¹⁶ Interview by the author with a PJ broker in a CB municipality on July 7, 2009.

VI. Conclusion

The available evidence on clientelism and brokerage shows that clients care about who their brokers are and develop long-lasting relationships with them. The model in this article explains why this is the case; clients are better off working with brokers with access to sizeable resources and consequently support these brokers with their votes. Furthermore, this model provides a theory of the determinants of brokers' transfers to voters, and it offers some insights into why brokers from incumbent clientelistic parties are hard to challenge.

The development of networks of brokers deeply immersed in poor neighborhoods is one of the most important political phenomena of Argentina in the last decades. A key contribution of the model is that it sheds light into the importance of such networks for party machines frequent electoral hegemony. As voters benefit from plugged in brokers, clientelistic parties that control public resources and have large networks of brokers can win election after election. Clientelistic parties can distribute generous rewards through their brokers securing poor voters' support. Although my analysis focuses on the case of Argentina, the dynamics of the client-broker relationship that I have explained will apply in other countries as well. For future research, a comparative analysis collecting data across countries will be a major contribution to the existent literature.

This model suggests that voters achieve through their brokers a higher welfare than previous theories predicted. This dynamic also opens up an interesting avenue for research that may deepen our understanding of the mechanisms that sustain broker-client relationships. The idea that brokers and voters can benefit together may lead the research on this topic in a new direction that accounts for the sustainability of broker-client commitments. If brokers and clients benefit together, it is possible that broker-client relationships are sustainable even in the absence of monitoring.

Appendix

I carried on the field work for this particular paper between 2009 and 2010 in four municipalities of the *Conurbano Bonaerense* (CB)—the 33 mainly poor municipalities surrounding the capital city of Buenos Aires. The CB has a population of more than 10 million, accounting for 26 percent of the national electorate, concentrated in around 1.2% of the national territory. The previous literature attests that the PJ machine has its stronghold in the CB (Levitsky 2003,

Stokes 2005). The four selected municipalities are important electoral districts which display characteristics typical of this area, which consists mainly of poor industrial suburbs populated by working class and unemployed people. La Matanza alone, with 834,000 voters, has a larger electorate than 17 of the 24 Argentine provinces. The other three municipalities in this study (Merlo 326,000, Malvinas Argentinas 203,000, and San Miguel 186,000 voters) have electorates equal to or bigger than those of provinces such as Formosa, Tierra del Fuego, and Santa Cruz. The four municipalities lie near the median of the CB in socioeconomic terms. Although a random sample of brokers was logistically impossible, I was able to interview a large number of them with a low rate of refusal (eight). The brokers were selected with a snowball technique. I was able to interview first the universe of brokers of a particular slum (7 brokers) that I knew well, and then asked them if they knew brokers similar to themselves in their own and in the other three municipalities. I asked brokers about their geographic area of influence; with this information I was able to assemble maps locating brokers. For some areas and localities, especially in La Matanza, which is the CB's largest municipality, brokers did not provide me with any contacts. In these localities, I recruited new seeds of snowballing by asking people (from 15 to 50) at schools (3), churches (8), and health centers (4) if they knew any brokers in their neighborhoods. In this way I was able to interview brokers from all major areas and localities. To confirm the political dynamics described by brokers, I also interviewed party leaders and executive officials including three former governors of the Province of Buenos Aires, five CB mayors, and 12 municipal directors and secretaries. The dynamics found in the urban Peronist machine in these four municipalities of the CB were confirmed for the provinces in interviews I carried out with twelve party leaders, four mayors, and three governors from other municipalities and provinces. I also interviewed six former ministers and five directors of different areas of welfare programs at the national level.

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