Selecting Clients:

Partisan Networks and the Electoral Benefits of Targeted Distribution

Ernesto Calvo
University of Maryland
ecalvo@umd.edu

M. Victoria Murillo
Columbia University
mm2140@columbia.edu

January 2012

Abstract:

The literature on distributive politics has not reach a consensus on how should political parties allocate excludable goods, such as handouts, public sector jobs, and pork, to maximize their electoral returns. Should they target core voters that are connected to the party's networks and whose preferences are well known to party activists or swing voters that are ideologically uncommitted and may change their electoral preferences if offered adequate inducements? In response to this debate, we propose a unified model of distribution of programmatic and non-programmatic benefits in multiparty settings. We show that partisan networks provide information to assess which voters provide the most electoral returns to distribution, with informative networks increasing returns to core voters. We provide evidence that core voter effects differ by type of good being deliver and under different institutional constraints. We test these hypotheses using survey data from Argentina and Chile.

"I have the municipality divided in two regions, and each of those two regions is sub-divided in other 10 or 15 quadrants. Then, I have coordinators by area, from *this* street to *that* street. Any problem that occurs, the coordinator needs to go there, talk, inform, report to his or her boss who will then let me know. If the problem is serious, I will be notified immediately"

Manuel José Ossandón, Mayor of Puente Alto, Chile, Interview with the authors, July 2009.

"We call it 'multiplicative work': each of us has acquaintances in the street where we live, friends. We tell each of them to get out, to speak, and publicize our political work. Thanks to this 'multiplicative work' we are known around here, because we do not control any media outlet. Groundwork [*trabajo de base*], wherever we are needed we go. They call us from some community and say: 'we have a problem, the street needs repairing, the water, the septic tanks, we call the municipality and they take 2, 3 days.' "

Carlos Bringas, PJ Activist, San Isidro, Argentina, Interview with the authors, August, 2009.

1. A Unified Theory of Targeted Distribution in Multiparty Elections

A crucial question on distributive politics is how should political parties allocate excludable goods, such as handouts, public sector jobs, and/or pork in order to maximize electoral returns? Should they target *core voters* that are connected to the party's networks and whose preferences are well known to party activists? Or, alternatively, should they target *swing voters* that are ideologically uncommitted and may change their preference on Election Day if offered adequate inducements? In this article we take on one of the most active agendas in the field of comparative politics—targeted distribution—to assess the electoral benefits of delivering policies and goods to voters with varying levels of ideological attachment to parties and varying levels of connectivity to party networks. In doing so, we provide a conclusive test of competing models of targeted distribution while expanding on existing analysis to explain distribution in multiparty settings.

Targeted distribution is just one among many strategies available to parties and one among many factors that determine vote choice. Voters weigh parties according to a variety of traits such as the policies

they propose, the goods they deliver, their performance in office, and other identity and socio-economic characteristics (Duverger 1954; Miller and Stokes 1962; Adams, Merrill, and Grofman 2005; Schofield and Sened 2006). Consequently, voters perceive the distribution of excludable goods such as handouts, patronage, or pork, not as substitutes but as complements to other programmatic benefits delivered by parties. In turn, party elites consider programmatic and non-programmatic strategies as related investments on constituencies whose demands include broadly defined policies as well as particularistic goods.

Although parties deliver both public policies and private goods, researchers have until recently focused on a single dimension at a time. Inspired by the responsible party model, researchers have described party elites as political entrepreneurs interested in maintaining the value of party brands by informing voters about broad policy choices. As parties cultivate informative and consistent policy reputations, voters slowly update their ideological positions over time.[1] By contrast, the literature on non-programmatic distribution developed without much consideration for spatial (programmatic) models of voting. Instead, scholars focused on the development of party-voter loyalty linkages explained by identity and socio-economic traits. A tenet of the earlier literature on clientelism and targeted distribution, consequently, was the notion of a core voter whose loyalty was impervious to the programmatic choices of parties.[2]

Beginning with Cox and McCubbins' (1986) seminal article on electoral politics as a distributive game, a number of recent contributions combine the policy and targeted dimensions of distributive politics that for many years described distinct theoretical traditions (Cox 2007; Cox and McCubbins 1986; Dixit and Londregan 1996, 1998; Stokes 2005; Lindbeck and Weibull 1987). Among these contributions, Dixit and

[1] For instance, Sanchez Cuenca (2008) finds that ideological inconsistency (between electoral promises and policies) shapes the weight that voters assign to ideological distance in their electoral choice.

[2] See Stokes (2007) for an excellent overview of this literature.

Londregan (1996) stands alone as the most comprehensive model of programmatic and non-programmatic distributive politics, where parties simultaneously allocate policies and targeted goods to voters. In their seminal article, Dixit and Londregan model the two parties' decision to distribute targeted benefits among individual members of two different groups. They show that the decision to allocate targeted benefits varies as a function of group differences in programmatic preferences, differences in the marginal value of targeted resources, and as a function of deadweight loses in the allocation of benefits to groups that are poorly known to politicians. Their model shows that increases in deadweight loses in the allocation of benefits—derived from information asymmetries—should drive parties away from swing voters, delivering resources to core voters instead. Thus, Dixit and Londregan provide a solution (and a test) to solve the central debate of the distributive politics literature: whether politicians derive larger benefits from targeting private goods to ideologically indifferent swing voters (Lindbeck and Weibull 1987; Stokes 2005) or from targeting goods to core voters who are better known to party activists and may provide electoral support over long periods of time (Magaloni, Diaz-Cayeros, and Estevez 2007; Cox and McCubbins 1986; Stokes 2005).

Dixit and Londregan's two-party solution to this debate shows that inter-group differences in dead weight losses should explain the party's decision to strategically allocate goods to core or swing voters. As it was described by Cox (2009, 345):

> *"Dixit and Londregan show that, when the parties have no special relationships with any groups (e.g., $\theta_L = \theta_R$), the parties' allocations are driven by the density of swing voters in each group—as in the Lindbeck-Weibull model. As larger and larger asymmetries in the parties' abilities to deliver benefits arise, however, the parties' allocations are driven more and more by the core voter logic of promising benefits to those groups to which the party can most effectively deliver benefits"* (Cox, 2009: 345).

Dixit and Londregan, however, fall short of describing the mechanisms that account for inter-group differences in deadweight loses. In explaining those mechanisms, this article focuses on the critical role of political networks for transmitting information (and reducing deadweight losses) when allocating targeted

goods. Furthermore, we expand and test this model of distributive politics to multiparty systems, with voters embedded in partisan information networks.

Using a novel approach to estimate the size and structure of partisan networks, we test for the effect of connectivity to network and ideological distance on the allocation of targeted benefits. As predicted by the theory, we show that less efficient partisan networks result in parties targeting resources to swing voters. By contrast, dense and informative networks drive parties away from swing voters, increasing the electoral benefits of allocating resources to core voters. We model these effects in multiparty settings and account for variation in deadweight loses that result from (i) more efficient partisan distribution networks, (ii) differences in the type of good being delivered; and (iii) differences in institutional constraints that affect discretion over the allocation of resources.

2. Dixit and Londregan's Model of Programmatic and Non-Programmatic Distribution

Our analysis begins revisiting Dixit and Londregan's (1996) model of targeted distribution, where Left and Right parties, $j = \{L, R\}$, offer programmatic benefits through general policies as well as targeted (non-programmatic) goods. In their framework, ideological proximity explains the voter's *taste* for ***programmatic*** distribution, where a voter prefers Party L if her ideal policy x_i is closer to the proposal P_L of party *L* so that $U(x_i - P_L)^2 - U(x_i - P_R)^2 > 0$. The probability that a voter will vote for Party L in a two party system is:

$$\Pr(V_{iL}) = \Phi\left[U(x_i - P_L)^2 - U(x_i - P_R)^2\right] = \Phi(X_i) \qquad (1)$$

where Φ describes the cumulative frequency distribution and X_i describes the cutpoint where a voter switches its choice from L to R.

Each party $j = \{L, R\}$ also offers voters a vector of discretionary transfers $\mathbf{T} = \left(T_{ij} \ldots T_{IJ}\right)$, subject to budget constraints, with promises revealed ex ante by parties and honored ex post.[3] Actual transfers, however, vary by the level of information available to identify the needs of different voters and successfully deliver the benefits. Consequently, transfers carry deadweight loses θ and only a fraction of the initial amount is perceived by voters:

$$t_{iL} = (1 - \theta_{iL})T_{iL} if\ T_{iL} > 0 \qquad (2)$$

As it was described by Dixit and Londregan:

"We allow the transfers to occur via a leaky bucket—of the T_{ij} dollars offered by party j to each member […] i, only a fraction may get through. Moreover, the fraction may depend on the identity of the group and the party; this captures the possibility that each party has some 'core support groups' it understands better, and it can deliver benefits to them with greater efficacy." (Dixit and Londregan, 1996, 1139). Consequently, differences in the information required to successfully allocate resources to voters explain that parties are not equally efficient when delivering targeted benefits.

By design, the model assumes that the probability that an individual will vote for a party increases with consumption, $C_{iL} = Y_i + t_{iL}$, conditional on the voter's income Y_i and the promised delivery of targeted goods t_{iL}. Consequently, the probability that individual *i* votes for party L is:

$$\Pr(V_{Li}) = \Phi\left[X_i + \frac{k_i(C_{iL})^{1-\epsilon}}{1-\epsilon}\right] \qquad (3)$$

[3] Dixit and Londregan refer to outcome-contingent transfers promised upon victory of the relevant party, which require no effort to verify individual votes. Stokes (2005), by contrast, provides a model under moral hazard, where parties need to monitor the behavior of voters on Election Day to ensure they fulfill their end of the bargain.

where k_i describes the importance or weight that voter *i* attaches to targeted distribution and ϵ describes the declining marginal value of an extra unit of targeted good. This declining marginal value of an extra unit of a targeted good ensures that wealthy voters attach lower value to targeted transfers than relatively poor voters. We can then differentiate (3) with respect to t_{iL} to estimate the shift in party vote per unit of targeted transfer, so that $U'(C_{iL}) = k_i(C_{iL})^{1-\epsilon}$.

It is worth describing some of the main implications of Dixit and Londregan's model in substantive terms. To this end we consider the special case where $P_L = P_R$ so that $X_i = 0$ and the pre-distribution probability of voting for L equals 50% e.g. $\Pr(V_{Li}) = \Phi[0] = .5$. Figure 1a describes the effect of delivering 1 extra dollar of targeted distribution to poor voters ($200) and wealthy voters ($2500) conditional on deadweight loses, θ_{iL}.

<<Insert Figure 1>>

As it is possible to observe, in Figure 1, with zero deadweight loses, $\theta_{iL} = 0$, the probability that individual *i* will vote for Party L conditional on the delivery of targeted goods is ≈75% among poor voters and ≈58% among the group of wealthy voters that perceive a lower marginal benefit per dollar being transferred. This reflects the lower marginal return to targeted transfer *T* among voters with higher incomes. As the value of θ_{iL} increases, deadweight loses reduce the electoral benefits of an extra unit of *T*. Indeed, if all the resources allocated to voters "leak," such that $\theta_{iL} = 1$, then the probability of voting for Party L reduces again to 50% as shown in Figure 1.

3. Comparative Statics in a Multiparty System

In the empirical section of this paper we measure the effect of ideological distance $(x_i - P_j)$ and targeted distribution t_{ij} on vote choice, conditional on information loses that occur among voters who are further removed from a party's network, θ_{iL}. More importantly, we measure the effect of ideological

proximity and targeted distribution when there are two or more competitive parties. This design fits our research cases, Argentina and Chile, where more than two parties compete for meaningful shares of the vote in most electoral districts.

Let us begin where Dixit and Londregan left off, and assume that *j* parties compete in an electoral district, with individual utilities of voting for party *L*:

$$U(V_{iL}) = -\alpha\left(x_i - P_j\right)^2 + \frac{k_i(C_{ij})^{1-\epsilon}}{1-\epsilon} \quad (4)$$

and associated multinomial probability of voting for party $L \in J$:

$$\Pr(V_{iL}) = \left\{\frac{e^{U(V_{iL})}}{\sum_{j=1}^{J} e^{U(V_{ij})}}\ \forall\ i, j \right. \quad (5)$$

Given that we have three or more parties, equations (4) and (5) replace the cutpoint X_{ij} for log odds ratios of *Party j* to all other parties. The importance or weight of ideological distances is captured by the parameter α, explaining the decline in the probability of voting for party *j* as distance increases. Assuming that the ideological location of voters x_i are exogenous, as in Dixit and Londregan, formal results still hold and the marginal effect of a one unit increase in targeted distribution[4] is $U'(C_{iL}) = k_i(C_{iL})^{1-\epsilon}$.

As before, let us now exemplify the comparative statics of targeted distribution under the simplifying assumption that we have three parties, $j \equiv \{L, C, R\}$, with programmatic proposals fixed at the same location in the ideological space so that $P_L = P_C = P_R$. In that case, the ideological distance from any voter to all three parties is identical with expected electoral returns of 1/3 of votes for all parties. Per equations (4) and (5), vote differences are the sole result of targeted distribution in the last term of the right hand side of equation (4), $\frac{k_i(C_{ij})^{1-\epsilon}}{1-\epsilon}$. As ideological distances drop from the equation, the effect of distribution on vote choice depends strictly on comparing the transfer amounts $T_i \equiv \{T_{iL}, T_{iC}, T_{iR}\}$, subject

[4] Notice that the partial derivative of t_{iL} in equation (4) is identical to the partial derivative of t_{iL} in (3).

to deadweight loses $\theta_i \equiv \{\theta_{iL}, \theta_{iC}, \theta_{iR}\}$, the importance voters attach to targeted distribution k_i, and the declining marginal value as transfers increase, $1 - \epsilon$.

Figure 2 describes the electoral benefits of targeted distribution when Party L distributes two dollars to voter *i*, Party C distributes one dollar to voter *i*, and Party R distributes zero dollars to voter *i*. Holding deadweight loses constant for parties other than L, we can see that the probability that individual *i* casts a vote for Party *L* is ≈47% with no leakage (e.g. when $\theta_L = 0$), but declines to ≈30% when deadweight loses add to the total amount of the targeted good (e.g. $\theta_L = 1$), resulting in a tie with Party R. Notice that it declines to 30% instead of 1/3 of total votes because in our example Party C is delivering a constant one dollar amount with .2 leakage to voter *i*.

<<Insert Figure 2>>

While the operationalization of ideological proximity and targeted distribution is well established, less effort has been directed to explain information asymmetries that affect the efficiency of allocating benefits among voters. A number of scholars have previously noted the importance of partisan networks in the capture of information and the delivery of resources among voters.[5] Following this literature, we argue that voters embedded in partisan networks will be able to more efficiently relay information that improves

[5] The traditional literature on U.S. party machines has long recognized the informational role of political networks (e.g. (Banfield and Wilson 1963). The recent empirical literature in emerging democracies has focused on the role of political networks in providing the necessary information to identify voters and deliver targeted goods. For instance, in a study of Mexico, (Magaloni, Diaz-Cayeros, and Estevez 2007) argue "a party requires a dense organizational network to successfully deliver these transfers and identify loyal partisans from all non-partisan who have incentives to misrepresent their type" (185). Similarly, (Camp 2010) reports a survey of party brokers in four Argentine provinces, where a majority of respondents said they can identify voters who are more sensitive to the reception of targeted goods (44).

the allocation of targeted benefits. Consequently, efficiency loses will increase as voters become further removed from partisan networks. Following equation (3), we assume that θ_{ij}increases as voters become further removed from partisan networks. Thus, advantages in the delivery of targeted benefits are explained by the size and structure of information networks. Because parties with different network capacity (e.g. reach and efficiency) vary in their ability to identify the needs and preferences of distinct groups of voters, targeted distribution does not provide the same returns to investment for every party. That is, differences in both the supply of targeted resources (T_{iL}) as well as in the capacity to effectively deliver those resources (θ_L) affect the relative returns to distribution. In the next section we derive our hypotheses from these differences.

4. Hypotheses and Implications: Core Voters, Swing Voters, and Party Networks

As described before, electoral returns to targeted distribution decline with income and as a function of deadweight loses for voters that are poorly known to party members. Controlling for ideological proximity, the theory predicts that parties will defect from swing voters and allocate more resources to core voters as deadweight loses increase. That is, parties should allocate benefits to voters with lower values of θ_J. This has been defined as the core voter hypothesis, where resources are targeted to particular groups of voters that are well known to party activists. However, if no particular group of voters is better known by party members, then larger benefits result from targeting resources to voters that are decisive—swing voter hypothesis. In the extreme, for the special case that $\theta_{1L} = \theta_{2L} = \cdots = \theta_{JL}$ for groups $j \in J$, party elites benefit from targeting all resources to voters that are close to the cutpoint $X_i$in a two party system. The core vs. swing voter hypotheses, consequently, assume that parties target different groups conditional on the level of information they have about the preferences of voters.

In order to test for the determinants of targeted distribution among distinct groups of voters we need to make explicit the "special relationship" that explains that some voters are better known to party activists. Partisan networks provide a mechanism to exchange information between voters and activists. In our model, different groups of voters and activists (nodes) are connected to each other, with networks of different density affecting the access and delivery of resources. Networks of party activists transfer information and benefits between voters and parties and reduce deadweight losses when allocating targeted benefits, so that our first hypothesis predicts:

> *Hypothesis 1: Voters who are more connected to partisan networks will provide larger electoral returns to targeted distribution.*

However, not all goods can be targeted exclusively to high returns individuals who are well connected to party networks. Indeed, club goods and local public goods, such as roads or parks, can only be allocated to *groups* or *collections* of individuals in a locality. In contrast to cash transfers or public sector jobs, which are excludable, local public goods cannot be calibrated to individual voters' needs even in information rich network environments. While public sector jobs or handouts can be allocated to individuals that give maximum electoral returns per unit transferred (very low deadweight loses, θ_{1L}), local public goods have to be allocated to a collection of individuals $\bar{\theta} = \frac{1}{n}\sum_{i}^{n} \theta_{iL}$. Because we expect higher variance in deadweight loses among individuals and lower variance among groups, the conditional effect of networks on distribution should be attenuated for goods that can only be targeted to groups of voters. Hence, we expect that the benefits of targeted distribution, conditional on party networks, will be less significant for local public goods that depend on aggregate level information. For similar reasons, we expect that deadweight loses to be larger, and therefore core voter incentives more prominent, when allocating high yield benefits to particular individuals. Therefore, our second hypothesis predicts the *attenuation of network effects for local public goods*:

Hypothesis 2: The conditional effect of information networks on voters will be largest for goods that can be targeted to individual voters and will decline for goods distributed to groups of voters, given that there is at least a subgroup of voters $\boldsymbol{i \epsilon I}$ *for which* $(\mathbf{1} - \boldsymbol{\theta_i})\boldsymbol{T_i} \geq (\mathbf{1} - \overline{\boldsymbol{\theta}}_{\boldsymbol{I}})\boldsymbol{T_{i \epsilon I}}$

Our third hypothesis focuses on inter-group variation in expected deadweight losses resulting from contextual institutional differences. Institutions that restrict the discretion of party elites for allocating public resources to particular individuals or groups will erode the efficiency of networks and will prevent the party from freely selecting individuals with minimum deadweight losses, $min(\theta_{iL})$.

The dampening effect of rules that reduce discretion when allocating resources to individual voters has been well documented in the literature. For example, Folke et al. (2011) show that the positive effect of patronage on party vote across U.S. states all but vanishes after the introduction of state-level civil service reforms. Civil service rules impose two different sets of constraints on the electoral returns resulting from the allocation of public sector jobs by (i) limiting the pool of job applicants to a narrower group that meet the job description qualifications (selection effect), and (ii) imposing restrictions on the type of activities that employees may pursue while at work, therefore reducing the effort that these individuals can place on political activities (political productivity effect). Selection and political productivity effects tend to trim differences in the marginal electoral return per public sector employee, reducing inter-group differences in deadweight loses (Calvo and Ujhelyi 2011). Therefore, we expect stronger support for the core voter model when few institutional constraints allow political machines to distribute private goods to voters of their choosing. Our third hypothesis predicts an *attenuation effect of institutional constraints such that*:

Hypothesis 3: Institutions that constrain the discretion of political actors reduce inter-group differences in deadweight loses, thereby attenuating core-voter effects in the allocation of resources via distributive networks.

To summarize, we expect that (i) information advantages in the delivery of non-programmatic goods will result in parties targeting *core voters* to maximize electoral returns. These information advantages should decline (ii) when targeting local public goods to groups of individuals and (iii) when

institutional rules limit the pool of potential recipients and restrict the type of activities that can be demanded from them. These hypotheses are tested in the next section using individual level data from two large surveys implemented in Argentina and Chile in 2007.

5. Ideology, Party Networks, and Targeted Distribution in Argentina and Chile

Argentina and Chile, the two southernmost countries of the Americas, share a common colonial past, roughly similar levels of development, populations with comparable socio-demographic characteristics, and stable but relatively young democratic institutions. Both countries have presidential executives, bicameral legislatures, and competitive multi-party elections. Political competition in these two countries, however, has been described in starkly different terms. Chile is generally portrayed as the poster child of programmatic party competition, predictable electoral environment, and policy stability (Carey 2002; Scully and Valenzuela 1993; Torcal and Mainwaring 2003) although recent scholarship has also focused on the electoral effects of targeted distribution (Barozet 2006; Luna 2006, 2010). Meanwhile, scholars consistently depict Argentina as a democracy with weak programmatic parties, extensive clientelistic networks, electorally volatile, and prone to frequent policy change (Levitsky and Murillo 2005; Spiller and Tommasi 2007; Calvo and Escolar 2005), even when programmatic incentives have been shown to have meaningful electoral effects (Saiegh 2009; Gervasoni 1998).

Whereas most of the empirical tests of the core-swing voter debate use data aggregated to the district level,[6] we test our hypotheses with individual level data from two nationally representative surveys. Our surveys have 2800 cases each, of individuals in cities with populations over 40,000 in Chile and 10,000 in Argentina. The survey was designed to capture all the components of the model described in previous

[6] See, for instance, (Dahlberg and Johansson 2002), (Magaloni, Diaz-Cayeros, and Estevez 2007), (Shady 2000),(Snyder 1989), and (Ansolabehere and Snyder 2006).

section and, thereby contains questions measuring the (i) self-reported ideological location of voters, the (ii) voter reported ideological location of parties, the (iii) distributive expectations of voters, the (iv) proximity of respondents to parties' networks, and (v) other socio-demographic controls. That is, we asked respondents to place themselves in the left-right policy space and to place each of the five major Argentine and Chilean parties in the same left-right policy space. We included a battery of questions measuring the distributive expectations of voters, requesting that each respondent report in a 0 to 10 scale how likely would it be that each party would distribute to them three different goods (handouts, public sector jobs, and pork) if they were to win the election the following week. Finally, we included a battery of questions to measure the size and structure of partisan networks using a survey design that allows us to assess the number of ties of each individual respondent to different party categories such as activists and candidates [*omitted reference]*. Let us provide descriptive information about these different variables in the Argentine and Chilean cases.[7]

a) Ideology in Argentina and Chile

Survey results show that Chilean respondents are more likely to place themselves in the ideological space and to identify the location of all relevant parties. Over two thirds of Chilean respondents readily identify the ideological location of Chile's main political parties on a left-right continuum. A remarkable 87% of survey respondents provided an ideological location for the then incumbent *Socialist*

[7] The Supplemental Information file provides a description of the survey sampling design and instruments. The surveys included a combined total of 5600 registered voters, with 2800 respondents from each country. Network questions request that each respondent provide counts of individuals by party and category. From such data we estimate the prevalence of party members in the population (number of activists, candidates, volunteers, etc).

Party (PS), with over seventy percent of respondents placing it on the left of the political spectrum. Its partners in the *Concertación* coalition included the *Christian Democrats* (DC) placed at the center of the ideological spectrum, and the *Party for Democracy* (PPD) on the center-left. Respondent placed *Renovación Nacional* (RN) and *Independent Democratic Union* (UDI)—allied in a conservative coalition called *Alianza*—on the right.

Ideological identification was less extensive among Argentine respondents due to significant policy swings, which increased difficulties for using ideological markers to assess the parties programmatic position (Lupu 2011). Only 58% of respondents reported an ideological location for the incumbent Peronists (FPV-PJ) and only 54% did so for the main opposition party, the *Union Civica Radical*. We also observe a large variance in the ideological placement of these two parties by Argentine voters, due to the existence of both left and right-wing factions in each of them despite their catering to voters with different socio-economic profiles, in line with the extant literature (Freidenberg, Llamazares, and García Díez 2007; Saiegh 2009).[8] Finally, two new parties emerged after the 2001 political crisis that led to the resignation of former UCR president Fernando de la Rua, the center-left *Alliance for a Republic of Equals* (ARI) and the center-right *Republican Proposal* (PRO), which are recognized by voters as being respectively on the center-left and center-right of the political spectrum.

b) Political Networks in Argentina and Chile

Partisan networks in both countries have activists (*militantes*) as the most encompassing party category. Our survey estimates that, in its broadest definition, activist represent approximately 1.4 percent

[8] The UCR has consistently draw support among better-off voters and professional middle-classes whereas the Peronists combined extensive labor-based roots with relatively conservative constituencies in the hinterlands.

of the population in Argentina and 1.2 percent of the population in Chile (Omitted Reference). Because networks of activists take time to develop and benefit from broader access to state resources, the strength of party organizations also varies significantly within each country. Whereas the main Chilean political parties have relatively similar contingents of activists, large asymmetries characterize party competition in Argentina.

In Chile, the Socialists have the largest partisan networks, with activists representing 0.356 percent of the total population, closely followed by the Christian Democrats (0.299), the PPD(0.20) and the UDI (0.19), and trailed by the smaller RN (0.147). Overall, the three *Concertación* parties that headed the national executive between 1990 and 2010 had larger networks than those of the conservative *Alianza*. However, differences were rather small.

By contrast, large asymmetries characterize the Argentine partisan networks. The Peronist activist network represents 0.766 percent of total population, almost twice the size of its UCR counterpart (0.42 percent). Still, the size of the Radical network remains impressive given its paltry 17 percent of votes in the 2007 presidential election, and is a testament to the resilience of an organization built over many decades. As described by Radical representative (and former presidential candidate) Leopoldo Moreau (personal interview with authors on July 20, 2009) when asked about what brought people to be Radical activists:

> *"…the Radicalism is a party with a long trajectory…with a network that developed over a hundred years [and] cannot collapse overnight. The basic structure of the party committee (e.g. territorial office) survives…pursuing community roles that range from providing kids with school support, nursing services, doctor services, etc… The party committee is a reference point [among voters]. In every town of the Buenos Aires province you can ask for the Radical committee and everyone knows where it is, just as when asking for the police station, the church… Not only in the Province of Buenos Aires [but all over] the country."*

The considerable smaller networks of the PRO and ARI, roughly twenty times smaller than those of the Peronists show the difficulties of building organizational power. Peronists and Radicals, consequently, enjoy considerable advantages to mobilize supporters.

c) Institutional Constraints on the Distribution of Public Resources

Politicians in both countries face different institutional constraints on their ability to target public resources for electoral gain. Chilean politicians face considerable institutional restrictions in the access and use of publicly-funded benefits for non-programmatic distribution. While there is significant allocation of targeted resources to Chilean voters, from cash transfers to broad workfare programs, distribution is generally carried out by bureaucratic agencies with little partisan involvement (Luna and Mardones 2009). Similar restrictions affect the allocation of public sector jobs, which are subject to technical oversight and follow hiring rules along with an informal system of party quotas within each coalition that further limited discretion in hiring (Bau Aedo 2005; Rehren 2000).

Restrictions in the discretionary allocation of public resources to voters have resulted in Chilean politicians privately financing the purchase and delivery of targeted goods (Luna 2011). As described by PPD representative Marco A. Nuñez, who is a medical doctor (personal interview with authors, March 2009):

> *"we provide medical services to people, 'please, come in; let me know where it hurts?', pharmacies distribute medicines that I either buy or receive from friends who are doctors. Veterinarians deparasite pets, lawyers provide legal advice, and teachers play with the kids. They paint the kids' faces while radio personalities or karaoke machines provide entertainment. All of it on Saturday morning in my headquarters."*

Institutional constraints on discretion in the allocation of publicly-financed resources are less binding in Argentina than in Chile. In a comparison of Latin American public sectors, (Grindle 2010) describes the Argentine bureaucracies as less meritocratic than the Chilean ones despite the existence of public service rules in both. Other studies have also documented the extensive allocation of public sector jobs for political gain through informal mechanisms in the National, Provincial, and Municipal public sectors (Grindle 2010; Iacoviello, Tomassi, and Zuvanic 2002); O'Donnell 2005). Oliveros (2011) uses an experimental design to show how public employees internalize the political goals of the majors who hired

them, especially when they have temporary contracts.[9] As described by a former major of the Buenos Aires rustbelt (confidential interview, July 27, 2009):

> *"[Electoral campaigns] are dependent on [public employees]. If the major tells them to "go work" and if some of them refuse to do it, the major can cancel their contract. In general, all the labor relations dependent on politics are temporary, by contract."*

The politicization of the public sector jobs, in turn, allows the politicization of publicly-financed private good delivery in Argentina. Weitz-Shapiro has (2011) shown that the allocation of federal resources by municipal governments differs dramatically across districts, depending on whether the incumbent Major drafts the lists of recipients or the criteria for delivery is defined by a professional bureaucrat. The politicization in the distribution of publicly-funded goods and services has also been documented by Giraudi (2007) and Garay (2011) whereas Auyero (2001), Szwarcberg (2009) and Brusco et al (2004) linked such politicization to the daily operation of political machines.

Overall, we have shown significant differences between Chile and Argentina on the importance of ideological cues, the structure of political networks, and the institutional constraints faced by politicians when allocating goods. These differences shape crucial parameters defined by our main three hypotheses, which are tested below.

6. Distribution, Party Networks, and Vote Choice

In this section, we first present the statistical specification of a modified equation (4) that unpacks the consumption term and provides for separate parameters of income and targeted distribution[10] and then

[9] Calvo and Murillo (2004), meanwhile, calculate the electoral returns of patronage for both the Peronists and Radicals in the 1983-2001 period.

[10] We separate the terms inside the consumption equation given that expectations about the delivery of handouts, jobs, and local public goods do not have an associated dollar/peso amount. For example, we ask

used it to test for the determinant of vote choice on the data we collected in Argentina and Chile. Beginning with equation (4), and after some algebraic manipulation,[11] we test for the determinants of vote choice using the following linear approximation for our multinomial choice model:

$$U_{ik} = -\propto (x_i - P_k)^2 + \delta Y_i + \beta_1 N_{ik} + \beta_2 T_{ik} + \beta_3 N_{ik} T_{ik} + \gamma Z_{ik} + u_i \qquad (6)$$

The first term in the right hand side of equation describes the effect of ideological proximity, with voters assessing the relative distance from their self-reported placement x_i to the reported location of each party P_k. Equation (6) also includes an income parameter Y_i, with voters having a different *taste* δ for distribution. The effect of targeted distribution on vote choice is captured by the parameter *T* while the effect of connectivity to party networks is described by N. We expect targeted distribution T_{ik} to have a positive effect on party vote, conditional on network proximity. Consequently, together with the base terms,

---

for the expectation of receiving a public sector job but do not ask a salary for that job. Consequently, the income and targeted distribution terms are not additive. This is not a problem given that a single consumption term was introduced as a modeling convenience.

[11] Let us begin with equation (4):

$$U(V_{iL}) = -\alpha\left(x_i - P_j\right)^2 + \frac{k_i(C_{ij})^{1-\epsilon}}{1-\epsilon} \qquad (4)$$

Given that epsilon ϵ may be considered fixed for all voters (Dixit and Londregan, 1996: 1138) we drop this term from the multinomial equation so that $U(V_{iL}) = -\alpha\left(x_i - P_j\right)^2 + k_i C_{ij}$. We unpack C_{ij}=$k_i[Y_i + (1-\theta_{iL})T_{iL}]$ and allow separate estimates of k_i for each of the relevant variables. Consequently, we estimate a model with main parameters $U_{ik} = -\propto (x_i - P_k)^2 + \delta y_i + \beta(1-\theta_{ik})T_{ik}$. We assume that network proximity allows parties to gather information about voters, so that $N_{ik} \equiv 1 - \theta_{ik.}$ Adding the constituent terms for network N_{ik}, targeted distribution T_{ik}, other controls Z_{ik} and assuming a stochastic error we obtain the model in equation (6).

$\beta_3 N_{ik} T_{ik}$ describes the conditional effect of targeted distribution T_{ik} on party *k* vote, subject to deadweight losses as voters become further removed from party network N_{ik}. This "leaky bucket" describes information loses that make distribution less efficient.

Dependent Variable

We use as our dependent variable the reported vote if a legislative election "were to take place next week." We deleted observations where the dependent variable yield non-responses, resulting in a sample of 1647 respondents in Argentina and 1497 in Chile.[12] We imputed missing values for the independent variables using *multivariate imputation by chain equations* (MICE)[13] and estimated models with five alternatives in Argentina –PJ,[14] UCR, ARI, PRO, and the main provincial party (PPP)—[15]; and five alternatives in Chile –the Socialist Party (PS), the Christian Democrats (DC), the PPD, UDI and the RN.

---

[12] We did not provide a closed menu of parties to respondents and non-responses prompted a one-time insistence. Undecided voters represented 27% and 20% of respondents in Argentina and Chile. Blank votes represented another 10% and 14% respectively. Finally, votes for smaller parties represented 3.3% of the vote in Argentina and 11% of the vote in Chile.

[13] While we deleted non-responses, blank, and small party votes in both countries; we replicated all analyses with a full dataset, drawing votes randomly to replace missing observations with multivariate imputation by chained equation (*MICE in* R 2.9). Results of alternative models are similar and available upon request.

[14] The survey was structured so that voters could select their preferred Peronist faction. This included the Frente para la Victoria (FPV) of former President Kirchner, allies of Carlos Menem, Rodriguez Saa, and a generic Peronist party. Because the survey question was “undirected,” we recoded as Peronists all responses that described any of the party factions.

Independent Variables

Our three main independent variables report on: the (i) ***ideological distance*** between each respondent *i* and party *j*; the (ii) proximity of respondent *i* to the ***network of activists of party j***; and the (iii) ***distributive expectations*** that a respondent will receive handouts, a public sector job, or the public works required by their community. The ***ideological distance*** term measures the squared distance from the self-reported ideological location of each respondent to the reported location for each party, $(x_i - S_{ki})^2$. Ideological placements were measured on a ten point scale, from 1 to 10, with low numbers describing locations on the left of the political spectrum and high numbers representing placement on the right. The ideological distance variable is alternative specific, assessing the ideological distance between each respondent *i* and each party *k*. We expected a negative effect on vote choice, as further ideological distance reduces the probability of voting for a party.

Second, we measured the connection between voters and parties using the ***normalized proximity between respondents and the network of activists of each party***. This distance is calculated using survey questions of the form "how many people do you know, and they know you, who are activists of party x?"[16] Following Gelman and Hill (2007), individual parameters reporting distances from respondents to each party network were estimated using a negative-binomial design with individual and group specific

---

[15] Due to the importance of provincial parties in Argentine, the fifth party choice varies per province seeking to retrieve information on the main provincial party, its partisan network and its distributive intent. We coded all provincial parties as PPP when conducting our analyses.

[16] Respondents were instructed that *knowing* someone meant that "you know them, they know you, that you may contact them by phone, letter, or in person and that you have had some contact during the last two years." Further survey details in the appendix.

over-dispersion parameters (Gelman and Hill 2007; McCarty et al. 2000; McCarty, Killworth, and Rennell 2007). As described in Gelman and Hill (2007), the over-dispersion parameters report that the respondent knows more/less members of a group than the prevalence rate (in standard deviations).[17] Finally, we rescale this measure to be bounded [0,1] as in the model specification in equations (4) an (6). As with ideological distance, network proximity is alternative specific for respondent *i* and party *k*. We expect this variable to have a positive effect on vote choice, where a respondent who knows more activists from a party will be more likely to vote for that party.

A third set of key independent variable is the self-reported unconditional expectation of *receiving handouts, a public sector job, or public works* in the community from an elected member of party *k.* The questions read: "In a scale from 1 to 10, where 1 is very unlikely and 10 is very likely, How likely would it be that an elected member of the (*party*) would provide you with (*type of good*)." The 1-10 ordinal index was used to measure the expected probability. The question was worded as to solicit unconditional expectations of receiving goods, and did not imply a *quid-pro-quo* exchange before, during, or after an election.[18] The respondent was presented with this question prior to questions on vote behavior, in a survey module that assesses party performance. Consequently, survey instruments did not prompt respondents to assume that the delivery of goods was conditional on voting for a candidate whom, once in office, would deliver the benefits. These questions are also alternative specific, inquiring on the likelihood of perceiving

[17] For further description see Appendix A and (omitted reference).

[18] The survey instrument was also worded to prevent voters from disclosing information under that false assumption that the interviewer could provide any link or connection to a party that was in position to deliver goods. The question was inserted in a module assessing the expected performance of parties in office, together with questions about the parties' capacity to manage the economy, unemployment, being responsive to the voter preferences, etc.

different goods from members of each party *k*. We expect distributive expectations to increase a party's vote.

The most important parameter for testing hypothesis 1 measures the expected party vote *conditional on expectations about the delivery of goods and network proximity*. Consequently, we interact network proximity and distributive expectations to obtain predictions about the marginal change in party vote when goods are targeted to voters that are more closely connected to party networks (Hypothesis 1). We also expect that the positive effect of the interaction to decline for goods that can only be allocated to groups of voters (Hypothesis 2), and when institutions restrict the discretion that parties have for selecting clients (Hypothesis 3). That is, we expect larger electoral gains when targeting goods to voters that are better connected to a party's network; we expect larger core voter effects when delivering goods that can be targeted to individuals rather than groups (private goods); and we expect larger core voter effects when parties face fewer restrictions to target voters with minimum deadweight costs.

Important controls include income and education variables, e.g., the socio-economic status and the education of respondents. We also include other controls measuring the relative size of the respondents' personal network (log), a performance question about parties' capacity, the attitudinal view of respondents on distribution, and gender.[19] The size of the personal network had a mean of 200 and 203 in Argentina and Chile respectively. The alternative specific performance question asks respondents "how capable is [the party] of managing the economy." To control for biases on the self-reported expectation of receiving

[19] We also estimated a number of alternative models that included the size of the locality and regional specific variables and the results were almost identical. To avoid the proliferation in parameters, our models do not include territorial variables, but data, code, and alternative specifications can be requested from the authors.

goods, we ask respondents to indicate, in a scale from 1 to 10, "how adequate is that the government provides [type of good]" to citizens.

Model Specification

We use a Conditional (Multinomial) Logit design with alternative and respondent specific variables. Alternative specific variables estimate the effect of variables that vary by choice (each party *k* in our model). For example, the ideological distance between a respondent *i* and the PS enters into the utility function of voting for the Socialists but not in the utility function of voting for other parties such as the UDI or the RN. Each survey respondent, consequently, reports different ideological distances to each of the parties and the estimated parameter associates distances with vote choice.

Respondent specific variables, on the other hand, take the same value across alternatives. For example, *wealthy* voters do not change their income category because they decide to vote for a different party. However, voters with different incomes display different propensity to vote for the Peronism. Consequently, the same *wealth* score of voter *i* has different effects on each vote choice. The conditional (multinomial) model includes alternative specific variables that vary by voter and respondent specific variables that do not vary by voter but have different effects on each choice.

Results: the Restricted Models

In what follows we provide two different set of results. First, we describe the results of restricted models that include only the key variables testing our hypotheses: ideological proximity, network proximity, expected delivery of targeted goods, and the interaction of network proximity and distribution. We will later describe model results with the full set of controls.

Table 1 presents results of our six restricted models, with the Peronists and the Socialists as the base categories in Argentina and Chile respectively. Because the *alternative specific* parameters describe

overall changes in the log-odds ratio of vote choice for any party, readers may interpret the direction and significance of the linear prediction even if they are not translated into vote probabilities e.g. the results labeled "Alternative Specific Variables" in Table 1. The variables labeled "Individual Specific Variables," on the other hand, need to be interpreted relative to the base categories (PJ in Argentina and PS in Chile).

<<Insert Table 1>>

Our findings provide a more nuanced picture of party politics in Argentina and Chile than conventional wisdom suggests as we find that in both countries ideology and targeted distribution have positive effects on the vote, although the former have a stronger effect in Chile and the latter in Argentina. First, the estimates of ideological distance have the expected negative sign and are statistically significant; indicating that further ideologically distance decreases the probability of voting for a party in both Argentina and Chile. However, the linear effect of ideological distances remains larger in magnitude among Chilean respondents, showing that ideology is a more important determinant of vote choice in Chile than in Argentina.[20] Second, table 1 also shows large, positive, and statistically significant effects of network proximity on vote choice both in Argentina and Chile. Yet, the linear prediction of network proximity on vote choice is significantly larger among Argentine voters, showing that network proximity is a more important determinant of vote choice in Argentina than in Chile.

Table 1 provides a positive test result for hypothesis 1, with targeted distribution having a more significant effect among voters that are more connected to party activists. As shown in Table 1, *proximity to the network of activists*, the *expectation of receiving targeted goods*, and the *interaction of both terms* are positive for all three types of goods in both countries. Positive coefficients for all three sets of parameters describe larger vote gains when allocating goods to respondents that are closer to a party's

[20] Notice that the log-odds linear predictions do not allow us to compare the substantive impact across models. We provide a more intuitive description in Figures 3 and 4.

network (core voter hypothesis). Table 1 also validates hypotheses 2 and 3, with attenuated core voter effects when delivering local public goods to groups of voters (effects on pork are weaker than on handouts and patronage) and when institutions constrain party discretion in the delivery of goods (effects are weaker in Chile than in Argentina).

Figure 3 facilitates the visualization of our results by providing a more intuitive view of model estimates, plotting the marginal change in the log-odds ratio of voting for a party *k* conditional on the expectation of targeted distribution and network proximity (Brambor, Clark, Golder 2006). The horizontal axis in Figure 3 describes network proximity, $(1 - \theta_{ij})$, with 0 indicating that the respondent is completely removed from the partisan network and a value of 1 indicating that the respondent is most connected to the party's network. The vertical axis in Figures 3 describes the marginal change in the log-odds ratio of voting for a party *j* (the linear change or slope that a one unit of change in targeted distribution has on party vote).

<<Insert Figure 3>>

The first plot in Figure 3, row 1 column 1, describes the marginal change in the log-odds ratio of voting for a party *k* in Argentina per unit of increase in the expectation of receiving handouts and conditional on network proximity. The informative effect of networks is captured by the slope of the marginal effect, which shows that the allocation of handouts to individuals that are closest to the party network increases the linear estimate of a party's vote by 0.4 while there is no significant effect among voters that are removed from the party's network. Consequently, aggregate results in Argentina show that the delivery of handouts significantly increases party vote among *in network* voters but has no effect on *out of network* voters (Hypothesis 1). Meanwhile, the effect of handout delivery conditional on proximity to party networks on Chilean voters is described in row 1 column 2. Although the results are in the expected positive direction (as shown by the upward slope), they fail to achieve statistical significance.

Figure 3 also provides a more intuitive description of results that support hypotheses 2 and 3. As predicted by hypothesis 2, when we move from more excludable goods (handouts and public jobs) to less excludable local public goods (public works), the slope becomes flatter in both countries. That is, while the expectation of receiving public sector jobs and public works increases party vote, the flatter slope for public works shows that smaller benefits from targeting *in-network* voters with less excludable goods. Hence, the delivery of pork provides roughly similar electoral benefits when targeting *in-* or *out of network* voters, suggesting that the information provided by partisan networks to distinguish core voters is less relevant when delivering local public goods. Figure 3 also presents results that are consistent with Hypothesis 3 if we compare the difference in conditional effects across both countries. Targeted distribution produces fewer gains among in-network voters in Chile than in Argentina across all three types of goods, consistently with differences in institutional constraints described above.[21]

To summarize, our results show that both programmatic and non-programmatic distribution increase the probability of voting for a party. Further ideological distance between respondents and parties reduces the probability of voting for that party in both countries, although the effect is larger in Chile. Likewise, targeted distribution and connectivity to party networks also increase the probability of voting for a party, although the effect is larger in Argentina. More importantly, we find support for hypothesis 1 as returns to non-programmatic distribution are higher among core voters—in-network voters—both in Argentina and in Chile, subject to constraints on the type of good being delivered (hypothesis 2) and the institutional differences across countries (hypothesis 3) .

---

[21] There are of course other political and institutional differences that distinguish voters from Chile and Argentina, therefore the results support our Hypothesis 3 but we cannot rule out other alternative explanations. We are significantly more confident that the statistical design provides conclusive support for hypotheses 1 and 2.

7. The Effect of Targeted Distribution on Vote Choice Conditional on Ideology

In this section, we estimate, as a robustness test, the joint effects of ideology, network proximity, and targeted distribution on vote choice to assess whether benefits to targeted distribution are also conditional on ideological proximity. That is, we estimate models that include three way interactions between the constitutive terms, a quadratic term of ideological distance to capture swing ideological voters, and the full battery of controls.

We begin this article with the working assumption that targeted and programmatic distributions represent distinct dimensions; this is certainly an assumption that is worth testing. The restricted models of the previous section described the effect of targeted distribution on vote choice conditional on network proximity. We now include the full set of interaction terms, measuring the (i) effect of targeted distribution on vote choice conditional on ideological distance, the (ii) effect of targeted distribution on vote choice conditional on network proximity, as well as the (iii) effect of ideological distance on vote choice conditional on network proximity. These unrestricted models allow us to test for the effect of targeted distribution on vote choice among respondents with varying ideological distance from a party.

We are interested in assessing if programmatic affinity to a party alters how voters perceive benefits from targeted distribution, which would produce variation in the effect of non-programmatic distribution conditional on ideological distance. For example, voters that are ideologically distant from a party may discount targeted benefits as a signal of political opportunism or as an attempt to buy them out of their beliefs. Voters that are ideologically close to a party may also credit the delivery of targeted goods as a signal of responsiveness. Consequently, just as there are deadweight loses in the allocation of benefits to voters that are not well known to party activists, voters that are ideologically proximate to a party may be differently attuned to targeted distribution from that party.

The unrestricted model also allows us to measure the effect of ideological distance on vote choice among respondents that are more closely connected (or not) to a party's network. Variation in the effect of ideological distance on vote choice, conditional on network proximity, should be expected if information networks not only allow parties to better interpret the needs of voters but also transmit ideological content i.e. information to mobilize supporters or to facilitate get-out-the-vote activities. Results from the unrestricted models are reported in Table 2. They include base terms for all key independent variables as well as the three way interactions and the quadratic specification for ideological distance.

Results from the Unrestricted Models

Estimates from the unrestricted models are almost identical to those of the restricted models in table 1 for all main parameters of interest while providing some new and interesting results that confirm the robustness of our analysis. As before, ideological distance from a party has a negative effect on the vote for such party whereas connection to a party's network of activists, and expectations to receive targeted goods from a party have a positive effect. The interactive term measuring the effect of targeted distribution on vote choice conditional on network proximity also holds, showing that the likelihood of voting for a party when receiving targeted goods is higher among voters that are more connected to a party's network (hypothesis 1). We also observe attenuation of the core voter effect when allocating local public goods and in Chile (hypotheses 2 and 3).

<<Insert Table 2>>

The unrestricted model provides results showing that ideological distance does not affect the impact of targeted distribution. The interaction of ideological distance and targeted distribution is close to zero, indicating that the effect of targeted distribution on vote choice is roughly the same for voters with different levels of ideological attachment to parties. A more intuitive presentation of this finding is described in Figure 4, which plots the marginal effect of targeted distribution on vote choice conditional on ideological

distance. As in Figure 3, each plot describes the linear marginal effect of targeted distribution on vote choice, with the horizontal axis describing ideological distance from the respondent self-reported location to the reported location of each party. In each plot in Figure 4, the horizontal axis ranges from 0 (the voter is located in the same ideological position as the party) to a maximum of 100 (the voter is at the other extreme of the ideological scale).

<<Insert Figure 4>>

The upper left and upper right plots in Figure 4 describe the effect of delivering handouts on vote choice, conditional on the ideological distance to parties. As it is possible to observe, the effect is indistinguishable from zero both among Argentine and Chilean respondents with conditional effects that move in opposite directions. Figure 4 also shows that the delivery of patronage jobs and pork provides positive returns to parties, as in Figure 3, but the mean effect is not affected by the ideological distance from a party. Finally, as the ideological distance increases so does the variance, indicating that delivering resources to respondents that are ideologically distant has a more uncertain effect on vote choice.

Table 2 also provides results to assess the effect of ideological distance on vote choice, conditional on network proximity. It shows that the negative effect of ideological distance on vote choice is roughly the same across respondents, irrespective of network connectivity. A more intuitive presentation of the results is in Figure 5, which shows that a one unit increase in ideological distance results in a linear marginal decline of ≈.02 in the log-odds ratio of voting for a party in Argentina and ≈.04 in Chile. The effect is roughly the same for voters that are well connected to a party's network of activists or that are further removed, providing evidence that the two dimensions are orthogonal to each other. That said, the effect of ideological distance is estimated with less precision among voters that are well connected to a party's

network. Overall, results from the unrestricted models validate the assumption that voters perceive programmatic and non-programmatic distribution as complements rather than substitutes.[22]

<<Insert Figure 5>>

The control variables also provide interesting results that confirm the literature on electoral behavior. First, our results support the literature that identifies performance as a crucial albeit less studied determinant of vote choice (Adams, Merrill, and Grofman 2005; Schofield and Sened 2006) and especially studies on the impact of economic performance on electoral behavior (Alcañiz and Hellwig 2011; Hellwig and Samuels 2008; Duch and Stevenson 2008). The expected performance of a party *vis-à-vis* the economy has a very large and positive effect on party vote both in Argentina and Chile.

Second, our results confirm the different impact of income on voting behavior across both countries. The impact of income is only significant in Argentina, with respondents being more likely to vote for Peronists as income declines. This finding converges with a very significant body of research on the relationship between class/income and the Peronist vote (Gibson 1996; Mora y Araujo and Llorente 1980; Lupu and Stokes 2009). Conversely, respondents with large personal networks are more likely to vote for the UCR in line with a significant literature showing the relationship between class and personal network size. In Chile, we find no significant advantages for the PS among low income voters and we find a positive effect derived from network size on the probability of voting for the right-wing UDI and RN. These findings confirm recent studies of Chilean voting behavior showing that the support for the Concertación comes from the middle of the income distribution whereas the richer and poorer voters are more supportive of the right-wing parties (Madrid and Navia 2009, Altman 2004).

---

[22] In Appendix B we plot the effect of targeted distribution on vote choice, conditioning simultaneously on ideological distance and network proximity. As reported in this article, results remain unchanged and hold both among Argentine and Chilean respondents.

8. Concluding Remarks

We started this article asking how should parties allocate targeted goods among voters in order to maximize electoral returns? We showed here that parties with efficient partisan networks should target core voters (hypothesis 1), but that they face declining advantages in delivering targeted goods to core voters when goods are targeted to groups rather than individuals (hypothesis 2) and when there are significant institutional constraints on the discretion for delivering targeted resources (hypothesis 3). Our final set of results provides evidence for a crucial assumption in our argument, that programmatic and non-programmatic distributions are distinct dimensions that are orthogonal to each other. In effect, the electoral benefit of targeting goods to voters is roughly the same irrespective of whether respondents are ideologically close or ideologically distant from that party. While on average connectivity to a party network increases the electoral returns to targeted distribution, ideological distance remains a separate albeit important determinant of vote choice.

Our analysis builds on Dixit and Londregan (1996) by expanding their model to a multiparty setting and by illuminating a crucial mechanism that affects deadweigh losses in the delivery of targeted goods, thereby affecting the electoral benefits of non-programmatic distribution. Our argument highlights the importance of partisan networks to relay information from voters to party members and to facilitate the delivery of goods while providing a method to test their effects. Taking advantage of recent advances on survey research, which allow us to measure the size and structure of partisan networks, we test the effect of party networks on vote choice and targeted distribution. By measuring the connectivity of voters to party networks, we are able to conclusively test the core voter model as originally proposed by Cox and McCubbins (1987) and Dixit and Londregan (1996). Our research, however, also points out that the core vs. swing voter model depends critically on the choice of a non-programmatic dimension that allows parties to understand the preferences of voters. Consequently, network-based specifications of the core vs. swing

voter models should differ from other alternatives based on adscriptive representation (i.e. ethnic core voter models).

Finally, the comparative statics of the model described in this article also provide crucial insight on the effect of programmatic and non-programmatic distribution in third wave democracies, characterized by larger inequalities among voters and a broader electorate that depends on the delivery of private goods to make ends meet. Our research provides a framework to understand the portfolio of distributive strategies of political parties in emerging democracies as well as a blueprint to test for core vs. swing voter effect in a variety of comparative settings.

References

Adams, James, Samuel Merrill, and Bernard Grofman. 2005. *A unified theory of party competition : a cross-national analysis integrating spatial and behavioral factors*. Cambridge ; New York: Cambridge University Press.

Alcañiz, Isabella, and Timothy Hellwig. 2011. Who?s to Blame? The Distribution of Responsibility in Developing Democracies. *British Journal of Political Science* 41 (02):389-411.

Ansolabehere, Stephen, and James Snyder. 2006. Party Control of State Government and Distribution of Public Resources. *Scandinavian Journal of Economics* 108 (4):547-569.

Banfield, Edward C., and James Q. Wilson. 1963. *City politics*. Cambridge: Harvard University Press.

Barozet, Emmanuelle. 2006. Relecturas de la noción de clientelismo: una forma diversificada de intermediación política y social. *Debate (Ecuador)* 69:77-101.

Bau Aedo, Catalina. 2005. Experiencias exitosas en la profesionalizacion de la funcion publica en America Latina. El caso Chile. In *Foro Iberoamericano: Revitalizacion de la administracion publica. Estrategias para la Implantacion de la Carta Iberoamericana de la Funcion Publica*. Mexico City, Mexico.

Calvo, Ernesto, and Marcelo Escolar. 2005. *La nueva política de partidos en la Argentina : crisis política, realineamientos partidarios y reforma electoral*. Buenos Aires: Prometeo : Pent.

Camp, Edwin. 2010. "Throwing a Wrench Into the Machine? Considering the Effects of Decentralization for Clientelism". Yale University.

Carey, John M. 2002. Parties, Coalitions and the Chilean Congress in the 1990s. In *Legislative Politics in Latin America*, edited by S. Morgenstern and B. Nacif. Cambridge: Cambridge University Press.

Cox, Gary W. 2007. Swing Voters, Core Voters and Distributive Politics. In *Elections and Redistribution*. Yale University.

Cox, Gary W., and Mathew D. McCubbins. 1986. Electoral Politics as a Redistributive Game. *The Journal of Politics* 48 (2):370-389.

Dahlberg, Matz, and Eva Johansson. 2002. On the Vote-Purchasing Behavior of Incumbent Governments. *American Political Science Review* 96 (01):27-40.

Dixit, Avinash, and John Londregan. 1996. The Determinants of Success of Special Interests in Redistributive Politics. *The Journal of Politics* 58 (4):1132-1155.

Repeated Author. 1998. Ideology, Tactics, and Efficiency in Redistributive Politics. *The Quarterly Journal of Economics* 113 (2):497-529.

Duch, Raymond M., and Randolph T. Stevenson. 2008. *The economic vote : how political and economic institutions condition election results*, *Political economy of institutions and decisions*. New York: Cambridge University Press.

Duverger, Maurice. 1954. *Political Parties: Their Organization and Activity in the Modern State.* New York: Wiley.

Freidenberg, Flavia, Iván Llamazares, and Fátima García Díez. 2007. The Determinants of Intraparty Ideological Differences. In *Politicians and politics in Latin America*, edited by M. A. Sáez. London: Lynne Rienner Publisher.

Gelman, Andrew, and Jennifer Hill. 2007. *Data analysis using regression and multilevel/hierarchical models*, *Analytical methods for social research*. Cambridge ; New York: Cambridge University Press.

Gervasoni, Carlos. 1998. "El Impacto de las Reformas Económicas en la Coalición Electoral Justicialista (1989-1995)". *Boletín de la SAAP.*

Gibson, Edward. 1996. *Class & Conservative Parties: Argentina in Comparative Perspective*. Baltimore: Johns Hopkins U.P.

Grindle, Merilee S. 2010. Constructing, Deconstructing, and Reconstructing Career Civil Service Systems in Latin America. In *Faculty Research Working Paper Series*, edited by H. K. School: Harvard University.

Hellwig, Timothy, and David Samuels. 2008. Electoral Accountability and the Variety of Democratic Regimes. *British Journal of Political Science* 38 (01):65-90.

Iacoviello, Mercedes, Mariano Tomassi, and Laura Zuvanic. 2002. Diagnóstico Institucional de Sistemas de Servicio Civil: Caso de Argentina. edited by I. Publications. Washington DC: Inter-American Development Bank.

Levitsky, Steven, and María Victoria Murillo. 2005. *Argentine democracy : the politics of institutional weakness*. University Park, Pa.: Pennsylvania State University Press.

Lindbeck, Assar, and Jorgen W. Weibull. 1987. Balanced-budget redistribution and the outcome of political competition. *Public Choice* 52 (3):273-297.

Luna, Juan Pablo. 2006. Programmatic and non-programmatic party-voter linkages in two institutionalized party systems: Chile and Uruguay in comparative perspective, Department of Political Science, University of North Carolina, Chapel Hill.

Repeated Author. 2010. Segmented party-voter linkages in Latin America: the case of the UDI. *Journal of Latin American Studies* 42:325-356.

Luna, Juan Pablo, and Rodrigo Mardones. 2009. Distributive Politics in a Non-Machine Party System: The Allocation of Targeted Social Funds and Subsidies in Chile (2000-2008). Universidad Catolica de Chile, Santiago.

Lupu, Noam. 2011. Party Brands in Crisis: Partisanship, Brand Dilusion and the Breakdown of Political Parties in Latin America, Politics, Princeton University.

Lupu, Noam, and Susan Stokes. 2009. The Social Bases of Political Parties in Argentina, 1912–2003. *Latin American Research Review* 44 (1):58-87.

Magaloni, Beatriz Magaloni, Alberto Diaz-Cayeros, and Federico Estevez. 2007. Clientelism and portfolio diversification: a model of electoral investment with applications to Mexico. In *Patrons, clients, and policies : patterns of democratic accountability and political competition*, edited by H. Kitschelt and S. Wilkinson. Cambridge, UK ; New York: Cambridge University Press.

McCarty, Christopher , Peter D. Killworth, H. Russell Bernard, Eugene Johnsen, and Gene A. Shelley. 2000. Comparing two methods for estimating network size. *Human Organization* 60:28-39.

McCarty, Christopher, Peter D. Killworth, and James Rennell. 2007. Impact of methods for reducing respondent burden on personal network structural measures. *Social Networks* 29 (2):300-315.

Miller, Warren E., and Donald E. Stokes. 1962. Party Government and the Salience of Congress. *The Public Opinion Quarterly* 26 (4):531-546.

Mora y Araujo, Manuel, and Ignacio Llorente, eds. 1980. *El Voto Peronista: Ensayos sobre la Sociología Electoral Argentina*. Buenos Aires: Editorial Sudamericana.

Rehren, Alfredo J. 2000. *Clientelismo polâitico y reforma del estado en Chile*. Santiago, Chile: Centro de Estudios Pâublicos.

Saiegh, Sebastian M. 2009. Recovering a Basic Space from Elite Surveys: Evidence from Latin America. *Legislative Studies Quarterly* 34:117-145.

Schofield, Norman, and Itai Sened. 2006. *Multiparty democracy : elections and legislative politics*, *Political economy of institutions and decisions*. Cambridge ; New York: Cambridge University Press.

Scully, Timothy, and J. Samuel Valenzuela. 1993. *From democracy to democracy : continuities and changes of electoral choices and the party system in Chile*. Notre Dame, Ind.: Helen Kellogg Institute for International Studies University of Notre Dame.

Shady, Norbert. 2000. the Political Economy of Expenditures by the Peruvian Social Fund (Foncodes), 1991-1995. *American Political Science Review* 94 (2):289-304.

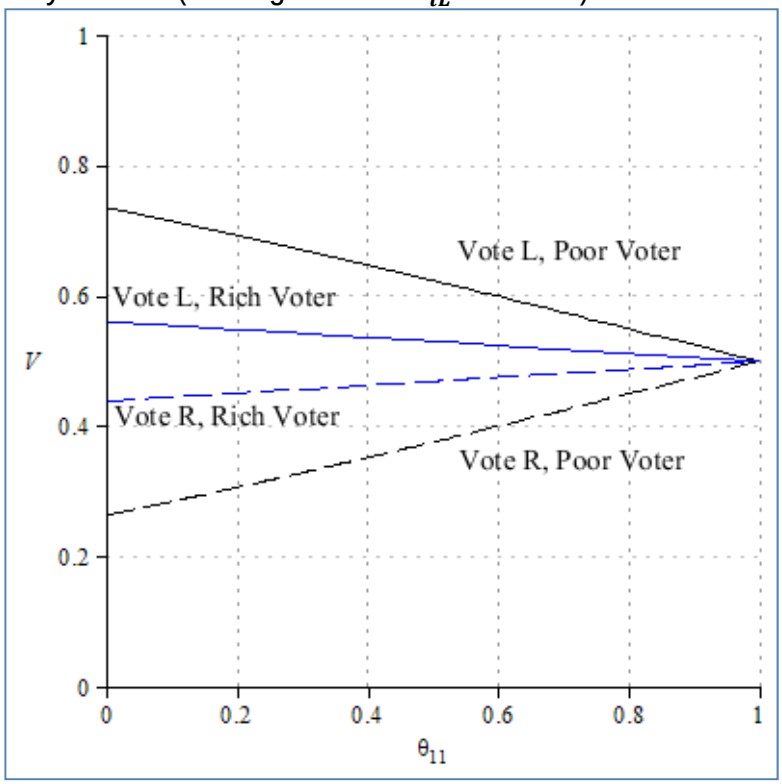
Snyder, James. 1989. Election Goals and the Allocation of Campaign Resources. *Econometrica* 57 (3):637-660.

Spiller, Pablo T., and Mariano Tommasi. 2007. *The institutional foundations of public policy in Argentina*, *Political economy of institutions and decisions*. New York: Cambridge University Press.

Stokes, S. C. 2005. Perverse accountability: A formal model of machine politics with evidence from Argentina. *American Political Science Review* 99 (3):315-325.

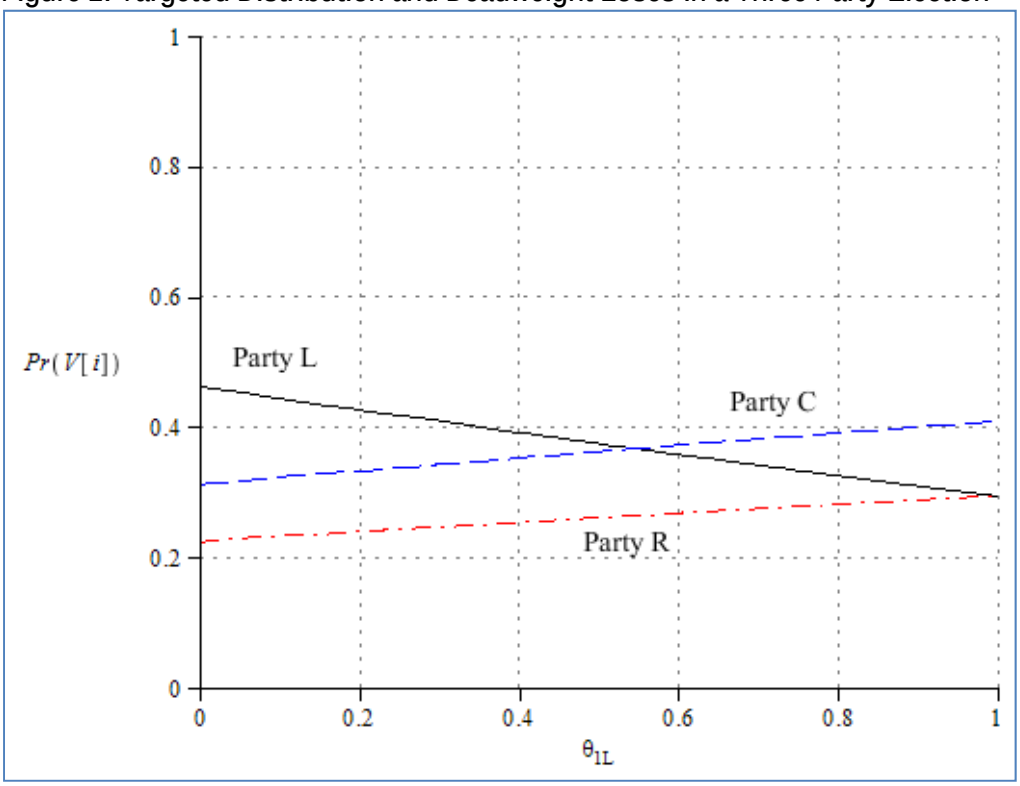
Torcal, Mariano, and Scott Mainwaring. 2003. The Political Recrafting of Social Bases of Party Competition: Chile, 1973–95. Cambridge Journals Online.

Figure 1: Targeted Distribution and Deadweight Loses in a Two Party Election (Leaking Effect as $\boldsymbol{\theta_{iL}}$ increases).



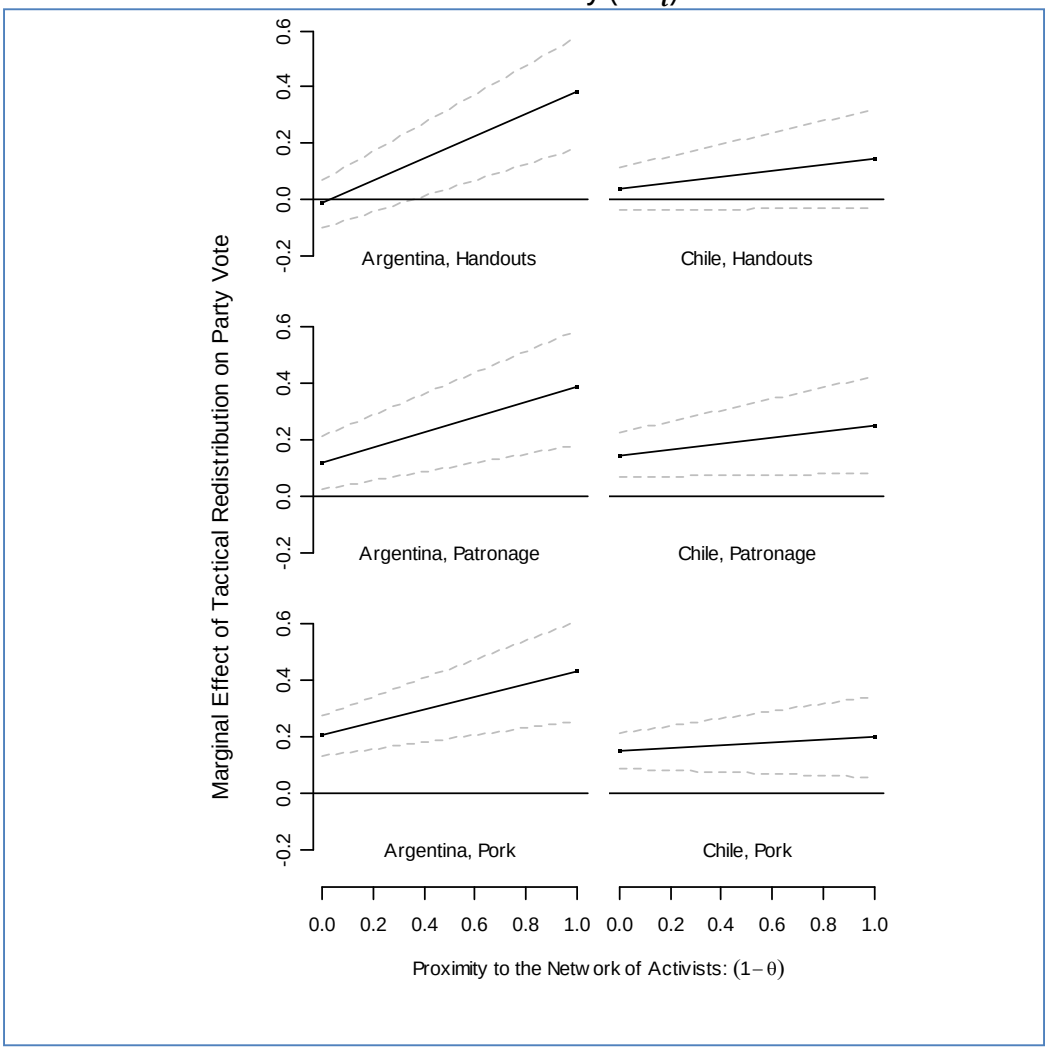
Note: Evaluating equations (2) and (3) by setting $T_{iL} = 1, T_{iR} = 0, k = .8, Y_{poor} = 200, Y_{rich} = 2500$ and the parameter $\varepsilon = .7$.

Figure 2: Targeted Distribution and Deadweight Loses in a Three Party Election



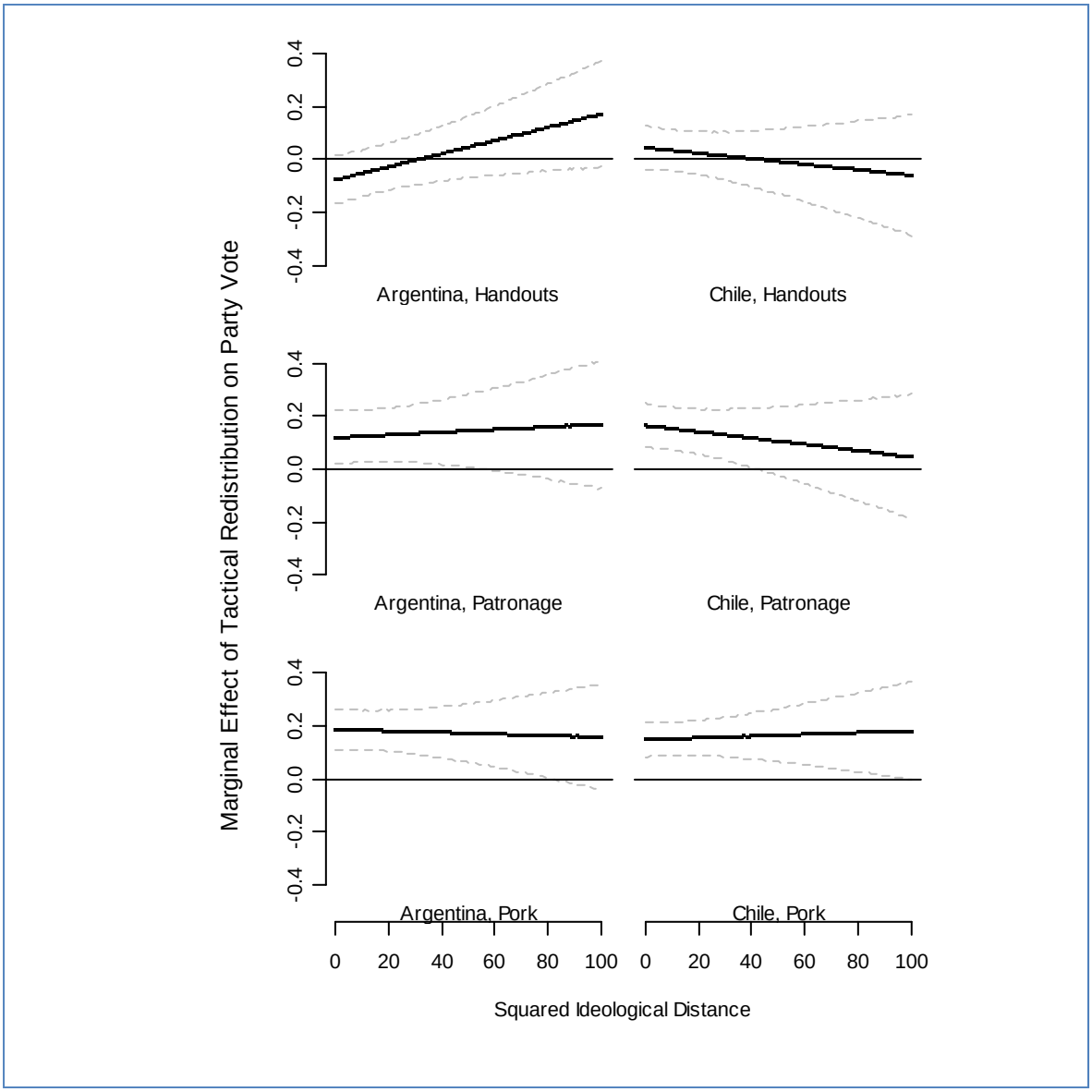
Note: Computed from equations (4) and (5), setting $Y = 200, T_{iL} = 2, T_{iC} = 1, T_{iR} = 0, k = .8, \varepsilon = .7, \theta_C = .1$.

Figure 3: The Effect of Targeted Distribution on Vote Choice, Conditional on Network Proximity (1-$\boldsymbol{\theta_i}$)



Note: Marginal Effects estimated from the Var-Cov Matrices of the models in Table 1.

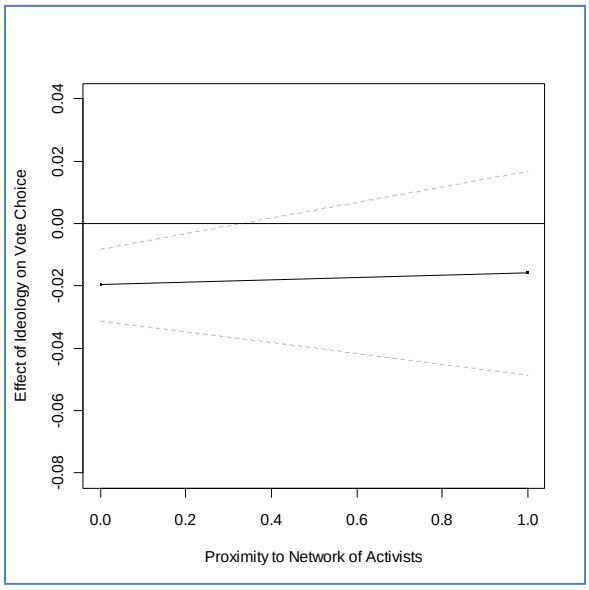
Figure 4: The Effect of Targeted Distribution on Vote Choice, Conditional on Ideological Distance



Note: Marginal Effects estimated from the Var-Cov Matrices of the models in Table 2.

Figure 5: The Effect of Ideological Distance on Vote, conditional on Network Proximity

Argentina



Chile

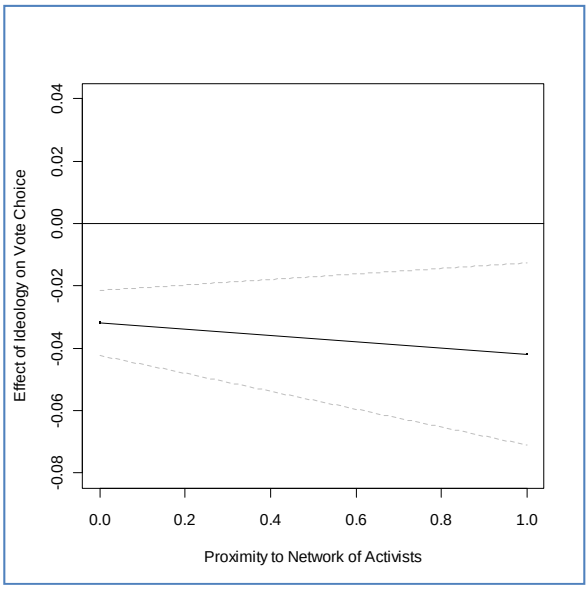


Table 1: The Effect of Ideological Distance, Network Connectedness, and Targeted Distribution on Party Vote, Restricted Models

		Argentina				Chile		
		Model1	**Model2**	**Model3**		**Model1**	**Model2**	**Model3**
		Handouts	Patronage	Pork		Handouts	Patronage	Pork
Alternative Specific Variables (Conditional Logit)	Ideological Distance	-0.018***	-0.0175***	-0.0158***	Alternative Specific Variables (Conditional Logit)	-0.0376***	-0.0371***	-0.0362***
		0.0032	0.0032	0.0032		0.0029	0.0029	0.0029
	Performance (Economy)	1.1784***	1.1496***	1.0632***		1.0419***	1.0317***	1.0178***
		0.0644	0.0647	0.066		0.0548	0.0551	0.0554
	Network of Activists Normalized [0-1)	3.114***	3.324***	2.5782***		2.3676***	2.3233***	2.3944***
		0.5417	0.5573	0.7265		0.47	0.4591	0.5361
	Distribution of Goods	-0.0131	0.1197**	0.204***		0.0392	0.1454***	0.1496***
		0.0512	0.0579	0.044		0.0465	0.0482	0.0375
	Network of Activists*Distribution of	0.3927**	0.2657	0.2282*		0.1085	0.1082	0.0519
		0.1562	0.1642	0.1368		0.1353	0.1307	0.1111
	UCR	-1.5577***	-1.5668***	-1.5585***		DC	-0.4154***	-0.4095***	-0.3945***
		0.0924	0.0929	0.0946			0.0852	0.0856	0.0858
	ARI	-1.8889***	-1.8604***	-1.7091***		PPD	-0.5823***	-0.5637***	-0.5557***
		0.1067	0.1057	0.107			0.0891	0.0895	0.0898
	PRO	-2.1276***	-2.0947***	-1.9938***		UDI	-0.2549***	-0.2198**	-0.1962**
		0.1168	0.1166	0.1188			0.096	0.0965	0.0967
	PPP	-2.4***	-2.3757***	-2.24***		RN	-0.1109	-0.072	-0.0411
		0.1377	0.1373	0.1382			0.0906	0.0913	0.0918
mfR2		0.2457	0.2457	0.2457		mfR2	0.2587	0.2587	0.2587
LogLik		-1251.67067	-1251.67067	-1251.67067		LogLik	-1847.013967	-1847.013967	-1847.013967
N		2800	2800	2800		N	2800	2800	2800

Note: Conditional Logit Model with alternative specific variables. Standard errors in parentheses with confidence levels reported as follows: * p < 0.1, ** p < 0.05, *** p < 0.01. The base party category is the Peronist (Justicialista) in Argentina and the Socialists (PS) in Chile.

Table 2: The Effect of Ideological Distance, Network Connectedness, and Targeted Distribution on Party Vote, Unrestricted Models

		Argentina						Chile					
		Model1	Model2	Model3		Model1	Model2	Model3	Model1	Model2	Model3		Model1	Model2	Model3
		Handouts	Patronage	Pork		Handouts	Patronage	Pork	Handouts	Patronage	Pork		Handouts	Patronage	Pork
Alternative Specific Variables (Conditional Logit)	Ideological Distance	-0.0246***	-0.0189***	-0.0165**	Positive view of Redistribution (PRO)	-0.0172	0.0192	0.0178	-0.0321***	-0.0315***	-0.0338***	Positive view of Redistribution (RN)	-0.0619*	-0.0106	-0.0125
		0.0077	0.0071	0.0076		0.0456	0.0434	0.0473	0.0064	0.0063	0.0067		0.0337	0.0277	0.0266
	Performance (Economy)	1.1543***	1.1221***	1.0503***	NSE AB (UCR)	0.0815	-0.0828	0.0797	1.0457***	1.0372***	1.0237***	NSE 1 (DC)	-0.2275	-0.2082	-0.1792
		0.0665	0.0668	0.0682		0.4721	0.4741	0.4831	0.0555	0.0558	0.056		0.4281	0.4286	0.4293
	Network of Activists	2.7695***	3.0736***	2.4807***	NSE AB (ARI)	-0.2761	-0.4045	-0.2333	2.4634***	2.4402***	2.5438***	NSE C1 (PPD)	0.358	0.4002	0.4357
		0.5807	0.5964	0.7807		0.4445	0.4452	0.455	0.506	0.4969	0.5879		0.3983	0.3993	0.4001
	Distribution of Goods	-0.0761	0.1158*	0.1974***	NSE AB (PRO)	-0.7377	-0.8041*	-0.6029	0.0453	0.1658***	0.15***	NSE 1 (UDI)	0.3604	0.3651	0.3859
		0.056	0.0614	0.0469		0.4605	0.4597	0.4692	0.0498	0.0507	0.0396		0.3895	0.3894	0.3897
	Ideology*Goods	0.0024*	0.0004	-0.0004	NSE AB (PPP)	-0.5935	-0.7043	-0.585	-0.0009	-0.0012	0.0003	NSE 1 (RN)	-0.7384*	-0.7625*	-0.7154*
		0.0013	0.0015	0.0012		0.444	0.4428	0.4528	0.0014	0.0015	0.0011		0.3963	0.3972	0.3975
	Network*Ideology	0.0033	0.0017	0.0094	NSE C1 (UCR)	-0.8055	-0.8044	-0.7345	-0.0131	-0.0109	-0.012	NSE C1 (DC)	-0.4678	-0.4732	-0.4246
		0.0253	0.0247	0.0245		0.6283	0.6137	0.6337	0.0223	0.0221	0.0225		0.3704	0.3711	0.371
	Network*Goods	0.4704***	0.2972*	0.2094	NSE C1 (ARI)	-0.5431	-0.5672	-0.4345	0.1065	0.1013	0.0404	NSE C1 (PPD)	-0.2094	-0.2612	-0.2281
		0.1606	0.1665	0.1404		0.4068	0.4092	0.4141	0.139	0.1342	0.114		0.3533	0.3533	0.3531
Individual Specific Variables (Multinomial Logit)	Constant (UCR)	-2.6233***	-2.5725***	-2.8944***	NSE C1 (PRO)	-0.9125**	-0.8957**	-0.7738**	-0.7985	-0.9155	-0.9512	NSE C1 (UDI)	-0.5273	-0.5563	-0.5115
		0.794	0.8021	0.8235		0.3844	0.3869	0.389	0.6832	0.69	0.6943		0.3982	0.3993	0.3983
	Constant (ARI)	-1.0764	-0.8022	-0.7074	NSE C1 (PPP)	-1.3384***	-1.3021***	-1.1618***	-0.1591	-0.4345	-0.4358	NSE C1 (RN)	-0.2692	-0.2766	-0.1876
		0.8606	0.8743	0.888		0.4067	0.4096	0.4137	0.6962	0.7004	0.703		0.3808	0.3823	0.3812
	Constant (PRO)	0.3095	0.2095	-0.5848	NSE C2 (UCR)	-2.0916***	-2.1711***	-1.9663***	-0.8286	-0.9458	-0.9899	NSE C2 (DC)	-0.1662	-0.2323	-0.146
		0.9444	0.9568	0.9993		0.4486	0.4514	0.4514	0.7307	0.7335	0.7374		0.3657	0.3659	0.3641
	Constant (PPP)	-1.8634*	-1.9463*	-2.2633*	NSE C2 (ARI)	-1.834**	-1.8728**	-1.766**	-1.0374	-1.0772	-1.091	NSE C2 (PPD)	-0.4956	-0.5482	-0.5007
		1.1321	1.1534	1.1706		0.8197	0.8218	0.8181	0.695	0.6982	0.7019		0.3669	0.3674	0.3677
	Personal Network (UCR)	0.3201***	0.3061**	0.3219***	NSE C2 (PRO)	-0.4057	-0.4557	-0.3535	0.0138	0.0087	0.0095	NSE C2 (UDI)	-0.3185	-0.3413	-0.2327
		0.1221	0.1229	0.1239		0.4114	0.4172	0.4342	0.107	0.1077	0.1082		0.3524	0.3537	0.3535
	Personal Network (ARI)	0.1782	0.1934	0.198	NSE C2 (PPP)	-1.3747***	-1.3781***	-1.1512***	0.0229	0.0367	0.0166	NSE C2 (RN)	-0.3684	-0.4542	-0.3716
		0.1459	0.1476	0.1476		0.4082	0.4122	0.424	0.1127	0.1129	0.1135		0.3386	0.3381	0.338
	Personal Network (PRO)	-0.1212	-0.0691	-0.0151	NSE C3 (UCR)	-1.798***	-1.8079***	-1.5411***	0.1368	0.1429	0.127				
		0.1656	0.1653	0.1687		0.4403	0.4464	0.4578	0.1188	0.1188	0.1197				
	Personal Network (PPP)	0.2258	0.2399	0.2858	NSE C3 (ARI)	-1.9922***	-1.9885***	-1.7293***	0.2713**	0.2715**	0.2718**				
		0.192	0.1934	0.1954		0.4573	0.4577	0.4668	0.1132	0.1136	0.1142				
	Women (UCR)	-0.0078	0.0364	0.0025	NSE C3 (PRO)	-2.8169**	-2.7971**	-2.5422**	0.0845	0.0822	0.0918				
		0.1943	0.1966	0.198		1.094	1.0928	1.0923	0.1718	0.1726	0.1728				
	Women (ARI)	-0.5061**	-0.4566**	-0.4889**	NSE C3 (PPP)	-1.0875**	-1.3281**	-1.157**	-0.0419	-0.0662	-0.0596				
		0.2167	0.2188	0.2208		0.5485	0.5601	0.5671	0.1798	0.1803	0.1807				
	Women (PRO)	-0.56**	-0.5534**	-0.5564**	NSE E (UCR)	-1.2439***	-1.3627***	-1.1575**	0.4789**	0.4926***	0.4411**				
		0.2407	0.2414	0.2453		0.4678	0.4664	0.474	0.1904	0.1911	0.1913				
	Women (PPP)	-0.1639	-0.1952	-0.1675	NSE E (ARI)	-1.993***	-2.1016***	-1.952***	0.1679	0.1568	0.11				
		0.2823	0.2851	0.2881		0.5276	0.5262	0.5366	0.1806	0.1811	0.1813				
	Positive view of Redistribution (UCR)	-0.0421	-0.0071	0.0121	NSE E (PRO)	-2.1172***	-2.2517***	-1.991***	0.0078	0.0325	0.0323				
		0.0329	0.0284	0.0316		0.5073	0.5028	0.5099	0.0292	0.0258	0.0254				
	Positive view of Redistribution (ARI)	-0.0821**	-0.0976***	-0.0993***	NSE E (PPP)	-1.5202**	-1.6753**	-1.4717**	-0.0531	0.0227	0.0325				
		0.0383	0.0321	0.0344		0.7056	0.7031	0.708	0.0324	0.0271	0.0265				
	Positive view of Redistribution (PRO)	-0.0497	-0.0449	0.021	mfR2	0.2456648	0.2456648	0.2456648	-0.0326	0.0098	0.027	mfR2	0.2586991	0.2586991	0.258699
		0.0419	0.0356	0.0419	LogLik	-1251.6707	-1251.671	-1251.671	0.0341	0.029	0.0279	LogLik	-1847.014	-1847.014	-1847.014
					N	2800	2800	2800				N	2800	2800	2800

Note: Conditional (Multinomial) Logit Model with alternative specific and respondent specific variables. Standard errors in parentheses with confidence levels reported as follows: * p < 0.1, ** p < 0.05, *** p < 0.01. The base party category is the Peronist (Justicialista) in Argentina and the Socialists (PS) in Chile.