



Article

Explaining Variation in Broker Strategies: A Lab-in-the-Field Experiment in Senegal

Comparative Political Studies
2017, Vol. 50(11) 1556–1592
© The Author(s) 2017
Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/0010414017695336
journals.sagepub.com/home/cps


Jessica Gottlieb¹

Abstract

The implications of clientelism for democratic accountability are mixed: Brokers not only help coordinate votes for collective gain but also exploit their position to advance personal interest. I argue that brokers use distinct strategies—persuasion, reciprocation, and punishment—to motivate voters as a function of their local institutional context. Competitively selected brokers whose preferences are aligned with those of followers can rely more on persuasion than instrumental inducements. Economically autonomous brokers are more likely to rely on sanctions than reciprocity. Evidence to support both the proposed typology of broker strategies and their determinants is collected in Senegal, a clientelistic democracy where group-level heterogeneity generates natural variation in broker types. A coordination game played with real brokers illustrates that participants are less likely to sacrifice personal gain when brokers are competitively selected, more likely when they most fear retribution. Qualitative data suggest that results from the laboratory game plausibly generalize to behavior in elections.

Keywords

African politics, clientelism and patronage, democratic theory, elections, public opinion, and voting behavior, experimental research

¹Texas A&M University, College Station, USA

Corresponding Author:

Jessica Gottlieb, The Bush School of Government & Public Service, Texas A&M University, 4220 TAMU, College Station, TX 77843, USA.
Email: jgottlieb@tamu.edu

Clientelism, the contingent exchange of goods for votes, is often considered a perversion of democratic accountability, not least because the reliance on local brokers¹ can obscure the relationship between voters and their representatives. But do these brokers—needed to solve parties' information problems of whom to target, reward, and sanction—necessarily obstruct electoral accountability and undermine democratic norms? Indeed, political intermediaries can not only wield their bargaining power to enrich themselves at the expense of citizens (Lemarchand & Legg, 1972) and prevent the distribution of public goods in favor of private ones (Keefer & Vlaicu, 2008), but they can also coordinate citizen demands (Gottlieb & Larreguy, 2016) and more effectively extract desired policies or resources from the government. Brokers also vary in the extent to which they rely on coercion or voluntary cooperation to influence followers (Scott, 1972), with different normative implications. While the empirical literature often portrays brokers in one particular light—either as self-serving strategic actors (Stokes, 2005)² or as public-spirited leaders (Baldwin, 2013)³—this study aims to expose and explain the heterogeneity of local brokers by both identifying distinct strategies of broker influence and examining potential determinants of this variation.

Brokers can either be extractive—threatening sanctions for noncompliance, reciprocal—offering material rewards in exchange for political support—or be persuasive—using the power of ideas to win over voters. I argue that a broker's choice of strategy is partly determined by local institutional context. Brokers with more economic autonomy from their followers are more capable of coercion, and can thus more credibly threaten punishment; brokers who are competitively selected have more closely aligned preferences with the community, and can thus more credibly rely on persuasion; and brokers who are more economically dependent on followers must rely on the costlier strategy of positive reciprocation.

Variation in broker strategies is particularly important in contexts where brokers are not just hired hands of the party (and so variation might be determined by individual idiosyncrasies) but are also embedded members of the local community with preexisting status and relationships (and so variation is also determined by local context or informal institutions). The latter is often the case in African democracies where parties have relatively low organizational capacity and tight-knit communities generate social authority that can be exploited by political entrepreneurs (Beck, 2008). Generated by a diversity of politically relevant ethnicities and religious groups, rich natural variation in local informal institutions in the clientelistic democracy of Senegal provides an opportunity to both illustrate the applicability of the proposed typology of brokers and explore determinants of variation in broker strategies.

Evidence from a lab-in-the-field experiment played in 48 Senegalese communities among 16 randomly sampled residents and the true local broker validates the proposed typology of brokers, and tests determinants of their distinct strategies. A novel coordination game attempts to simulate behavior in real elections while providing necessary control over stakes and preferences that might otherwise make it difficult to infer how brokers are really wielding their influence. A lab-in-the-field experiment is a useful tool in this case because it both mitigates the threat of response bias—here, the disincentive to honestly criticize one’s political broker—and isolates the effect of the preexisting relationships between the broker and voters with a simple decision choice that abstracts away from broader political considerations and can be replicated across contexts.

An informed sampling strategy to select communities for game play exploits the existing literature on differences among ethno-religious groups in Senegal to generate rich variation in both explanatory variables of interest—competitiveness of selection and economic autonomy. Namely, I show how three Senegalese groups—the Mouride, Toucouleur, and Diola—map onto these dimensions and then sample communities from each of these groups. In the analysis of game play, I first illustrate the plausibility of my argument by showing that differences in group-level outcomes align with predictions. While these results are striking, they are only a blunt test of the hypotheses because groups can differ in all kinds of ways. In a second set of analyses, I then exploit broker-level (rather than ethnic/religious group-level) data on the two dimensions of interest to test the hypotheses more precisely.

I find evidence consistent with the theory: Economically autonomous brokers are more likely to be of the extractive type, and competitively selected brokers are more likely to be of the persuasive type. Because I exploit existing differences among brokers and their communities along these two dimensions and communities vary in other potentially correlated ways, I am unable to make rigorous causal inference with this design.⁴ However, the correlational findings from the game data combined with additional tests to rule out alternative explanations provide strong support for the plausibility of the argument that can be more rigorously confirmed in future work.

This study complements recent advances in the study of clientelism that have begun to recognize the “diversity of actors working as brokers” and provide explanations for differences in clientelist strategies (Mares & Young, 2016). While existing explanations focus on how formal institutions such as electoral rules and individual-level characteristics such as socioeconomic status condition clientelist strategies, this article instead focuses on the variation in informal local institutions that determines different broker types.

This work also adds to the literature on the role of leaders in electoral decision making by studying an electoral coordination problem in the context of a clientelist democracy. Rather than party leaders inducing coordination on a specific policy or ideal point, the coordination problem brokers solve in a clientelist electoral system involves demonstrating high levels of communal support for a particular party or individual to induce targeted material gains or avoid targeted sanctions. As the coordination problem in such a setting differs from that in a programmatic electoral context, so too do the strategies brokers employ to influence voters. Consistent with Mares and Young (2016), the lab-in-the-field experiment illustrates two strategies leaders use in such a context in addition to sending informational messages about candidate quality or position: material rewards and sanctions.

Determinants of Broker Strategies

To serve their function of coordinating local votes, brokers can either be extractive—threatening sanctions for noncompliance, reciprocal—offering material rewards in exchange for political support—or be persuasive—using the power of ideas to win over voters. When will brokers choose each of these three strategies? To answer this question, I develop an argument that first makes assumptions about the relative costs of each strategy, and then posits how variation in local context conditions the credibility, and thus effectiveness, of each strategy.

Each potential vote mobilization strategy—punishment, reciprocation, and persuasion—implies a fixed relative cost to the broker, and each has a variable probability of success of mobilizing a coordinated vote among followers. With respect to relative costs, I assume the following: Reciprocation is the most costly as brokers must provide material benefits to voters that either come out of their own pockets or are drawn from the rents they would have personally extracted from electoral transfers. Persuasion is the least costly as it requires time and information, which the other two strategies also require, but does not necessitate material or financial outputs. Punishment might include a broker withholding future support from a community member or convincing others in the community to ostracize that person as well. Maintaining a credible threat of punishment through, for instance, investing in one's own legitimacy or elevated status in social networks is assumed to require greater costs than persuasion.

All else equal, and given this cost structure, brokers should then prefer persuasion to other strategies. However, the effectiveness of persuasion in turning out votes—and thus the expected value of employing this strategy—is dependent upon the credibility of the broker's message. Variation in

credibility is conditioned by the broker's institutional context. Namely, I argue that the probability that persuasion is successful in mobilizing votes is influenced by the extent of preference alignment between the broker and voters. The more likely the voter is to believe that the broker's preferred candidate aligns with his or her own preferred candidate, the more likely is the broker to use persuasion over other strategies.

When persuasion is not credible and thus unlikely to achieve the desired goal of coordinating votes, the broker is more likely to turn to one of the remaining two strategies. Although punishment is assumed to be less costly than reciprocation, its effectiveness is also variable across brokers. Only brokers who can credibly threaten punishment will achieve sufficient rates of voter mobilization with the use of this strategy. I argue that brokers who are more economically autonomous from their voters can most credibly threaten punishment. The source of the broker's wealth matters, in addition to simply the level of wealth, because the more a broker's income is dependent on his or her followers, the more future revenues are jeopardized by punishing followers. Economically dependent brokers are thus less able to credibly threaten punishment. In sum, brokers who cannot credibly threaten punishment (and who also cannot credibly use persuasion) must turn to the costlier strategy of reciprocation.

Features of the local institutional context thus condition the probability of success of each broker strategy and, together with the assumed relative costs, determine which strategy a broker will likely employ. The above discussion then implies two dimensions along which broker strategy is determined: preference alignment between brokers and voters and capacity for punishment. Moving from theory to empirical application requires that we observe variation along these determinant dimensions. I thus posit two observable features of the local institutional context that should correlate with our theoretical constructs of interest: (a) the likelihood of preference alignment (and therefore the likelihood of choosing a persuasive strategy) is increasing in the competitiveness of broker selection, and (b) the credibility of threats of punishment (and therefore the likelihood of choosing a coercive strategy) is increasing in the economic autonomy of brokers from followers. Below, I substantiate this logic.

Competitive Selection and Preference Alignment

In an electoral context, competitive selection of leaders can align politician preferences with those of voters through both sanctioning and selection mechanisms. Fear of losing one's position can motivate a leader to represent voter preferences. And, greater choice among leaders can produce candidates

who are more preferred by voters. The informal institutions of local broker selection depart from democratic elections, in that there are generally no fixed term limits or systematic opportunities to reevaluate the incumbent. Even without the promise (or threat) of future reevaluation, however, competitively selected brokers may still act in greater alignment with constituent preferences due to a larger pool of available candidates, lower barriers to entry, or a broader electorate.

Other empirical studies suggest that selective pressures can indeed improve outcomes even among unelected leadership positions. When there is more competition in chief selection in Sierra Leone (more historic ruling families to choose between; Acemoglu, Reed, & Robinson, 2014) and Tanzania (Lierl, 2014), relatively better social outcomes are obtained, and relative to appointed local officials, elected ones are less likely to influence voters in Indonesian elections (Martinez-Bravo, 2014). Dal Bó, Foster, and Putterman (2010) demonstrate another reason for which competitive brokers are less likely to rely on instrumental incentives: They are perceived as more legitimate and thus induce higher levels of cooperation. This is consistent with Baldwin and Mvukiyehe's (2011) finding that participatory selection of chiefs in Liberia makes them less likely to enforce contributions to public goods while still improving citizen participation and consultation. Grossman (2014) suggests that such increased cooperation results from greater proclivity of groups with elected brokers to establish monitoring institutions.

I thus propose that selective pressures produced by competition should generate brokers whose preferences are more aligned with those of voters relative to brokers who do not face competition in selection. Alternatively, competition in broker selection could instead be a sign of social fragmentation that results in political intermediaries with weaker ability to coordinate voters rather than greater legitimacy. The data will help adjudicate between these alternative predictions.

Economic Autonomy and the Credible Threat of Sanctions

A broker who is not competitively selected may lack the legitimacy of a competitively selected one, and is less likely to have preferences aligned with voters. Such brokers can turn to material inducements to motivate voters to coordinate on the broker's preferred political outcome. Whether a broker uses positive inducements or negative sanctions, I argue, is a function of his or her economic autonomy⁵ from the local community. More autonomous brokers not only have more coercive capacity but they are also less deterred by a negative reaction from the community because they risk less from causing disaffection among followers.

Economically autonomous brokers are thus more likely to use negative incentives to exert unwanted influence over followers, while dependent brokers must rely on positive incentives. A similar argument is made by Weinstein (2007) who shows that rebel organizations that depend on local populations for subsistence are less likely to commit violence against civilians than rebel groups with access to external resources because the dependent rebels need to ensure a reciprocal relationship with the civilians they control. Empirical support of this mechanism is also found in Afghanistan, where accountability and abuse of authority vary by the degree to which villagers are economically dependent on the local elite (Pain & Kantor, 2010), and Zambia, where embeddedness in the community inspires brokers to act more accountably (Baldwin, 2015).

The above logic attributes the influence of dependent or less autonomous brokers to their use of positive incentives. However, it is also possible that dependent brokers need not rely on inducements because they are more likely to have preferences aligned with voters. I will adjudicate between these two possibilities in the data.

Scope Conditions

Theoretical work across political science and psychology describes the necessity of leaders for solving coordination problems (Ahlquist & Levi, 2011; Calvert, 1992; Van Vugt, 2006): They can be focal, unify expectations, and help followers to coordinate actions. Recent experimental work similarly has political parties facing coordination problems, and examines the role of political leaders in influencing electoral behavior. In these studies, parties (and leaders) distinguish themselves on the basis of policies or political ideology (Dewan & Myatt, 2007; Dickson, 2010). By contrast, the present study assumes a clientelistic electoral context in which voters cannot or do not necessarily respond to programmatic appeals.

Such a setting expands the set of strategies a local leader or broker might employ to motivate voters. Whereas leaders in a purely programmatic democracy rely on influencing voter preferences over ideology or beliefs about the state of the world, brokers in a clientelistic setting may also model behavior or send messages that inform voter beliefs about personalistic exchange. In particular, brokers can imply that voting a particular way will be rewarded with targeted transfers, or punished with social or material sanctions.

Two additional scope conditions further circumscribe the article's argument. First, I only consider cases in which political brokers are socially embedded in tight-knit local communities—who live and work in the community and whose fate is thus linked to that of the community. Where there

exist dense social networks, parties should be more likely to choose a broker with strong ties to community members than one without. Such individuals can use immaterial resources (existing legitimate status, bonds of trust, or social sanctions) in addition to material resources from the party, making them more efficient brokers. Brokers embedded in the community may also be cheaper to motivate if collective transfers will benefit the broker.

Second, I only consider settings in which collective clientelistic transfers, such as semiexcludable local public goods, are employed by parties. Where voters are members of geographically distinct communities and locally excludable goods can be targeted to them, the literature suggests that parties should prefer collective over individual transfers because they are (a) more efficient and (b) easier to monitor (for both the logic of collective targeting and evidence of it in practice; see Chandra, 2007; Gottlieb & Larreguy, 2016; Larreguy, 2013; Rojo, Jha, & Wibbels, 2015; Rueda, 2015; Schedler & Schaffer, 2007). Referred to as contingent prize allocation by Smith and Bueno De Mesquita (2012), when goods are targeted collectively rather than individually, the voter's choice depends not only on personal preferences but also on expectations of how others in the community will vote as groups with higher levels of aggregate support for the winner will be more likely to receive preferential treatment. The broker's objective in such a context is to induce the community to coordinate votes on his or her preferred party.

Senegal Context

Research investigating how variation in features of local institutions affects the relationship between brokers and followers should ideally minimize variation across other dimensions. While a cross-country analysis can render significant variation in local broker types, additional variation in electoral institutions and the geographic units over which brokers preside complicates the analysis. I instead undertake a within-country study of a case with sufficient variation across local informal institutions. Senegal is an ideal case to investigate questions about the differential influence of political intermediaries on electoral decision making: Existing literature characterizes its democracy as highly clientelistic, and it is further recognized for rich variation in local brokers across different ethnic and religious groups.⁶

Much of Senegal's population lives in communities (often villages) with strong hierarchical ties to a local broker which makes clientelism via local intermediaries an attractive electoral mobilization strategy compared with mass-based ethnic appeals (Koter, 2013a). Furthermore, targeting of village-level goods is common (Koter, 2013a; O'Brien, 1975), aided in large part by the fact that electoral outcomes are observable at the village level (Gottlieb &

Larreguy, 2016). Senegal thus meets the scope conditions required by the theory.

Another advantage of studying Senegal is the rich extant literature on ethno-religious groups and their brokers (Beck, 2008; Boone, 2003; O'Brien, 1975)⁷ which I exploit to construct an initial categorization of group types along the independent variables of interest, and then sample from those groups to maximize potential variation in broker behavior. In these studies, differences across ethno-religious groups are attributed, in part, to regional differences in precolonial state structures, differences in interactions with the colonial state, and differences in the extent and type of Islamization.

Who Are the Brokers?

In Senegal, patron–client relationships mirror the multitier pyramidal structure described by Scott (1972) with the lowest level brokers in villages reporting to midlevel party representatives within the commune.⁸ This study analyzes the strategies of village-level brokers who typically affiliate with a particular party but whose partisanship may be fluid across elections.⁹ These brokers are easily identified by community members as a political intermediary,¹⁰ and while several may operate simultaneously within a village as representatives of different parties, the primary broker is identified as the one who most successfully coordinated votes in the village.

The village-level broker is often closely tied to the village chief or marabout (religious leader) but seldom holds either position.¹¹ Often, these or other local elites directly select the broker without input from the rest of the community. In other cases, a larger group such as the youth in the village, or even representatives from all households, comes to consensus about the identity of the broker. There is rarely a formal election, but the size and representativeness of the selectorate vary. In rare cases, the intermediary inherits the position.

What distinguishes a local broker from the community? The local broker is typically wealthier than the average villager, or more educated.¹² While brokers certainly benefit financially from their status, this is not their only occupation. In the study sample, the majority of brokers' primary occupation is farming, and 77% say agriculture is a key revenue source. As such, economic autonomy from the community will be measured primarily by the ratio of broker agricultural landholding to that of community members.

Broker Types in Senegal

To illustrate the key arguments and maximize variation along the independent variables of interest, I concentrate the study sample within three

Table 1. *A Priori* Categorization of Ethno-Religious Groups.

Competition in selection	Economic autonomy from the community	
	Low	High
Low	Toucouleur (Northern Senegal River Valley)	Mouride (Central Wolof groundnut basin)
High	Diola (Southern Casamance region)	

ethno-religious groups which can plausibly be arrayed along the dimensions of competitive selection and economic autonomy as shown in Table 1. The Toucouleur and Diola are ethnic groups, while Mouride describes a Muslim brotherhood (who are predominantly of the Wolof ethnicity).

Brokers of the **Mouride** brotherhood, the cultural group most commonly associated with clientelism, I classify as economically autonomous from their followers. This Islamic Sufi order with its holy city Touba about 200 km east of Dakar is identified by O'Brien as the dominant local authority structure following the collapse of the precolonial state. During and after colonization, the Mouride marabouts are the main intermediaries between the peasants of Senegal's populous groundnut basin and the state. Beck classifies Mouride marabouts as influential brokers because of the high level of deference they enjoy from their disciples or followers (often characterized as "blindly obedient"), and the high level of autonomy from the state as a function of the state's dependence on brotherhood political support and the brotherhood's ability to mobilize resources without the state's support. In this study, I emphasize the autonomy of brokers from their followers not from the state, though the two are related. In the same way that the Mouride brotherhood's social and financial networks, often referred to as mafia like, offer their brokers external resources that make them less dependent on the state for support, they additionally make them less dependent on followers for support. And, while many claim that obedience is due to blind faith, this study interrogates that assumption and is able to test whether followership is partly explained by fear.

I classify ethnically **Toucouleur** brokers as economically dependent. Casted nobles are at the head of a similarly hierarchical social order in the northern Senegal River Valley. These "dependent brokers" according to Beck derive their status from a centuries-old caste system within the Toucouleur ethno-linguistic group. Unlike Mouride marabouts, however, these rural elites owe their economic power to the Senegalese state. As noted by Boone, a

declining economy in the region following independence undermined the traditional sources of Toucouleur noble's authority and wealth, such that the "status and clout of the landholding oligarchy became more contingent upon controlling patronage resources . . . devolved to them from the center" (p. 301). Again, I focus on the dependence of these brokers on their followers rather than the state. But the fact that brokers rely on patronage from the state makes them similarly reliant on voters to justify that patronage; without external resources such as the Mouride, brokers thus depend on the reciprocal relationships with voters to maintain their own status as political intermediaries.

I classify the ethnically **Diola** brokers as more competitively selected. In contrast to both these groups, the Diola, dominant in the southern Casamance region, are known for their horizontal and relatively egalitarian society. According to Beck, "Political power [is] highly dispersed, with the gerontocracy of each [Diola] village selecting a chief without obligations to a broader regional authority" (p. 164). As a result, there is no preordained class of political intermediaries in this region which leads to real competition among potential local brokers. In contrast to the inherited status of the Mouride and Toucouleur religious or traditional leaders, Diola village leaders are selected by heads of constituent families who also serve to constrain their leader's authority. Similarly, as we will see in the data, Diola brokers are almost always chosen by a large and representative village selectorate relative to the Mouride and Toucouleur brokers who are more often chosen by one or a small group of elites.

I validate this *a priori* categorization of group types with data collected from surveys with brokers (creation of indices described in Section "Measuring Independent Variables"). As shown in Figure 1, the survey data are consistent with initial expectations: The Diola are most likely to competitively select brokers, and the Mouride most likely to be economically autonomous from their followers. This figure also shows that there is important within-group variation to exploit.

Qualitative data (see Section "Qualitative Data" for collection strategy) also suggest that Diola brokers are more likely to be competitively selected and Mouride brokers more likely to be autonomous. Participants in three of four Diola villages explicitly describe competition among potential political intermediaries for support from villagers¹³; similar remarks are absent in Toucouleur and Mouride villages. In the four Mouride villages for which we have qualitative data, brokers are related to either the chief or marabout,¹⁴ or appointed by existing power brokers,¹⁵ further confirming the lack of competitiveness in their selection.

A fundamental assumption of the study is that local brokers in these three groups exert political influence. In Online Appendix A, I examine whether

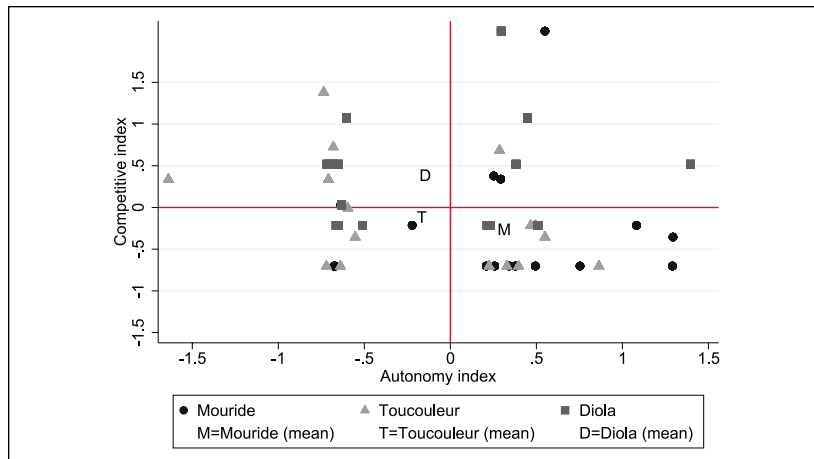


Figure 1. Sampled brokers by group type.

villages that are largely Diola, Toucouleur, or Mouride are more likely to coordinate their votes in a real election than villages of other group types. Indeed, individuals in our three village types are 3% to 5% more likely to bloc vote for the same candidate relative to individuals in more heterogeneous communities, and 5% to 10% more likely than individuals in communities of the dominant religion (Tidjane) or ethnicity (Wolof). This supports the assumption that local leaders in the sample groups are particularly politically influential.

Research Design

The aim of the research design is to first identify variation in local broker strategies, and second examine the determinants of this differential behavior—first at the group level and then at the broker level. While a broker might utilize inspiration, material rewards, or fear to motivate followers, these choices are not equally socially desirable. Thus, self-reports of broker behavior, or even reports by followers, may be subject to bias. In addition, contexts vary, such that a broker might be successful using one strategy in a particular setting but behave differently when parameters change. For these reasons, I study broker influence using a laboratory game played by a representative sample of villagers and the true local political intermediary (who is not physically present during the game). This artifactual setting has the advantage of both reducing social desirability bias by studying revealed rather than

reported preferences and isolating the effect of broker type by controlling contextual parameters such as choice sets and preferences.

To distinguish between the three proposed broker strategies, I use a novel coordination game in which broker and voter preferences are unaligned.¹⁶ There are two focal points or strategies in the game: One is more redistributive and instrumentally optimal for the participant, the other more remunerative for the broker. Voting for the instrumentally optimal outcome is anticipated where voters and brokers have more aligned preferences and voters are unaccustomed to being asked to forgo their personal preference. Voting for the broker-preferred option could have three substantive interpretations: A voter may sacrifice his or her personal interest in favor of the broker out of (a) fear of sanctions, (b) anticipation of reciprocity, or (c) because the voter believes the broker to be truly legitimate (and possibly redistribute back to the community). To discriminate between the first two instrumental and the third noninstrumental possibilities, I introduce a randomly assigned anonymity treatment that increases the salience of the anonymity of game play. If behavior is being driven by instrumental incentives, we would expect the treatment to have a negative impact on voting for the broker-preferred option; if behavior is being driven by noninstrumental beliefs, we would expect no effect of the treatment.

Coordination Game to Measure Influence of Local Brokers on Vote Choice

A coordination game seeks to uncover whether and when voters in a given community make electoral choices that are not in their interest. As in most behavioral games, trade-offs between choices are costly, and the coordination aspect of the game requires players take others' preferences into account when making a decision. Before playing, the most representative or popular political intermediary in the village is identified by the village chief,¹⁷ and surveys are conducted with him and the 16 players. While the political intermediary is made aware of the game, he is not himself invited to attend; his payouts are distributed afterward. The game is played in the village square among a gender- and age-balanced random sample of 16 participants per village. Game rules are explained using visual aids and in small groups to increase comprehension, and prevent pregame communication among players. All choices are made with a secret ballot, and players know that the real political intermediary is a potential beneficiary of the game.

Every player I_j has two possible strategies $S_I = \{x, y\}$; x is a vote for outcome X , and y is a vote for outcome Y . The political intermediary, L , is

Table 2. Player Payoffs in U.S. Dollars.

Player	Election outcome		
	$X : p_x \geq .75$	$Y : p_y \geq .75$	$\emptyset : p_x < .75 \text{ AND } p_y < .75$
I_j	2	1	0
L	4	20	0
Total payout	36	36	0

not an active player in the game, but he is affected by game payoffs. There are three possible outcomes of the game: $o = \{X, Y, \emptyset\}$. Outcome X is implemented if at least 75% of (or 12) players choose X ; Y is implemented if at least 75% of players choose Y ; and \emptyset is implemented otherwise. For players (I_j, L), payoffs of each outcome in local currency units are as follows: $X = (1000, 2000)$, $Y = (500, 10000)$, and $\emptyset = (0, 0)$ (or see Table 2 for payouts in U.S. dollar equivalents).

The game's payoff structure thus creates two theoretically distinct focal points: X is the instrumentally optimal outcome for the participant; Y has a higher payoff to the broker and a lesser payoff to the participant. This payoff structure, in which there are two Nash Equilibria—everyone plays X and everyone plays Y —can be thought of in our context as a stag hunt. In a typical stag hunt, the Nash outcomes represent an instrumentally superior one of mutual cooperation and a less risky one of mutual defection. In this game, X similarly represents an instrumentally optimal outcome, whereas Y represents an outcome that is materially suboptimal but preferred by the broker. If individuals believe that they may be sanctioned if they fail to choose the broker-preferred outcome, Y is indeed a safer option.

Players are told that payoffs are implemented only when players coordinate on either outcome at or above a 75% threshold. Because players move simultaneously and payoffs are contingent on coordination, the game measures what players expect other players to do, or which outcome is most focal in their community: the socially optimal one or the broker-preferred one. The motivation to implement a coordination rule in this game is threefold: First, it would be relatively easy to free ride and opt for the instrumentally optimal outcome in the absence of the coordination rule; the rule thus elicits more variation in game play. Second, the game not only captures individual preferences but also beliefs about others' preferences. In real elections in the Senegal context, voters have incentives to coordinate votes at the village level if they believe their villages can be rewarded or punished for marginal changes in vote share for the incumbent (see Smith and Bueno De Mesquita's,

2012, discussion on contingent prize allocation and bloc voting). Finally, if voters believe their vote choice is knowable and thus fear sanctions, then the extent of sanctions will depend on the proportion of other voters in the village who vote similarly.

Playing the game with real brokers and members of their communities—and the implied welfare consequences for both—allows us to capture participant expectations of how their broker will react outside the lab setting to choices made inside the lab.¹⁸ Taking the lab experiment to the field effectively changes the payoffs in the game. In an isolated setting with independent participants, no one should ever vote for the broker-preferred outcome. It is the social ties between participants and brokers that render the game interesting. While the game may only last for one round, players anticipate future interactions, and the prospect of future interactions alters game payoffs. If a player believes that voting for the individually optimal outcome may come with a sanction, the payoff for this action is reduced—perhaps below the payoff of voting for the broker-preferred outcome. It is also plausible that a player expects voting for the broker-preferred outcome will induce future reciprocation from the broker, thus increasing the payoff for that outcome.

Anonymity Treatment

There are two categories of reasons a player might choose the broker-preferred outcome in the coordination: She may feel some deference or moral obligation to a broker, or she may anticipate negative or positive repercussions by the broker if her choice is discovered. While the ballot in the game is functionally secret, voters often believe that ballots are not secret even when they are. More than a quarter of the 1,024 respondents surveyed prior to playing the coordination game said that it is probable that local political intermediaries know how they vote in real elections (12% said “very probable”).

To discriminate between these possibilities, I implement an experimentally assigned “anonymity treatment.” A random half of villages in each group type receive an additional protocol that highlights the anonymity with which votes are cast in the game. The anonymity intervention consists of a script read to all participants by the enumerators prior to game play. I adapt language on the secrecy of voting from an information experiment in Pakistan conducted by Gine and Mansuri (2011) who find that women in anonymity-treated communities are less likely to vote with their husbands. The script provides the following three types of information: (a) ballot secrecy is a legal right, (b) ballot secrecy applies to all citizens and from all citizens (brokers, elders, husbands do not have the right to know), and (c) ballot secrecy will be

ensured during game play by opaque envelopes that conceal decisions from others and opaque ballot boxes with multiple ballots that conceal decisions from enumerators. Ballot secrecy is rigorously upheld in all games but made salient through the provision of information in treated villages.

Household and Broker Surveys to Measure Independent Variables

To collect broker-level data on the independent variables of interest, a survey is conducted with the political intermediary identified by the chief. Questions about the broker's economic autonomy and mode of selection are then used to construct indices to measure the brokers' competitiveness of selection and economic autonomy. To collect data on relationships between voters and brokers that inform measures of reciprocity, the 16 game participants are surveyed prior to playing the game. To ensure a representative sample from the village, participants are recruited using a random-walk method stratified by age group and gender. Participants are also asked to name the political intermediary in the village to verify whether the broker the chief identifies is indeed the most representative. The names given by participants match the name given by the chief in 56% of cases (slightly more in Mouride villages [63%] relative to the Toucouleur and the Diola [51% and 55%], but not significantly so). That a majority of villagers agree on an individual who represents them as their political intermediary is further evidence of the existence and importance of such a position in the community. If the voter does not consider the identified broker to be his or her preferred intermediary, this should bias the experiment against finding any distinct patterns across broker types, making it a harder test.

Qualitative Data

Qualitative data from interviews with participants and village brokers supplement the survey and game data by uncovering more contextual information about broker type and verifying the extent to which behavior in the games can be generalized to behavior in elections. Two local research assistants conducted qualitative interviews with four participants and the chief in a sample of four villages of each type several weeks after the study. Questions concerned political life in the village, the political intermediary who participated in the games, and respondents' political activity, along with specific questions for each village. Using transcripts from the 108 pages of interviews, a research assistant coded themes corresponding to components of individual political decision making, individual-level opinions of political life in the village, perceptions of the broker, and position of the broker.

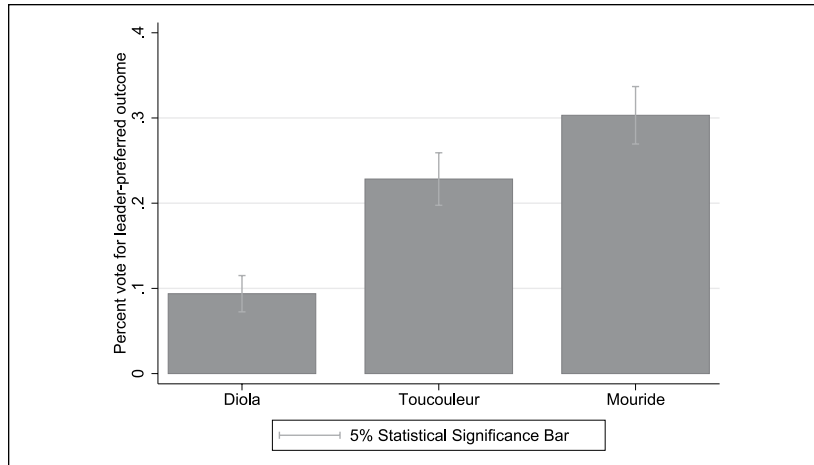


Figure 2. Mean vote share for broker-preferred outcome, by group type.

Sample Selection

To identify where specific group types reside, I use the Senegalese census conducted between 2000 and 2002 (RGPH 3). Using individual-level observations, I calculate population size and proportion of individuals in each ethnic and religious group by village ($N = 13,075$). A village is categorized as belonging to a particular type if at least 75% of its population reports belonging to the group.¹⁹ I concentrate my sample of 16 randomly sampled villages of each of the three group types in rural villages where the influence of local brokers is known to be stronger (Koter, 2013b).

Results by Group Type

If the *a priori* categorization of groups is valid, then predictions are that the competitively selected Diola should be least likely to vote with the broker, the economically autonomous Mouride the most likely, and that the anonymity experiment should have a positive effect on voting for one's own preference, for example, decrease voting with the broker, among the Mouride whose brokers have sufficient latitude to sanction. Figures 2 and 3 support these predictions.

The outcome of interest is the vote share for the broker-preferred option Y . Outcomes are measured at the individual level with a binary indicator of whether an individual chooses Y . Because the game is strategic, involving

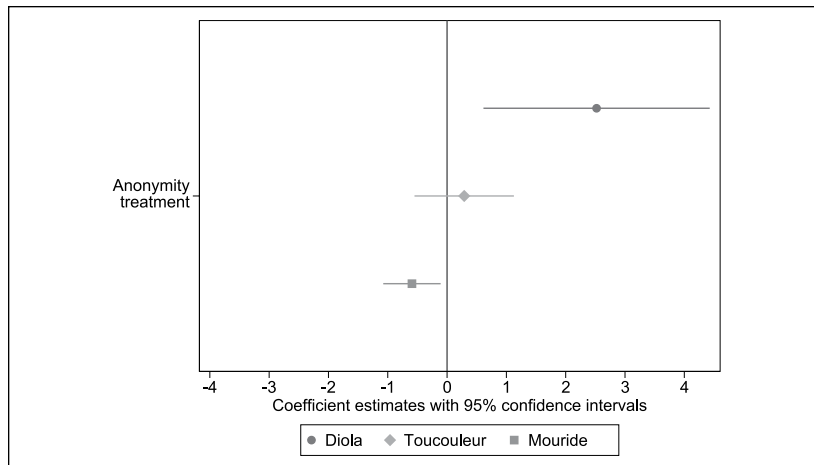


Figure 3. Effect of anonymity treatment on voting for broker-preferred outcome.

beliefs about individuals in one's own village, standard errors are clustered at the village level. And because of the binary nature of the dependent variable, I use logit regression. To measure the effect of the anonymity treatment on voting behavior, I use a dummy variable to indicate whether each individual is assigned to a treated or control village.

Figure 2 shows the mean vote share for the broker-preferred outcome in the coordination game by group type. Consistent with expectations, participants in communities with more autonomous brokers (the Mouride) are more likely to choose the broker-preferred outcome—significantly more so than the two less autonomous groups, the Diola and the Toucouleur. Participants with the most competitively selected brokers (the Diola) are significantly more likely to vote for the instrumentally optimal outcome.

When interpreting these findings, it is instructive to consider a baseline expectation of participant behavior. The broker-preferred outcome is instrumentally suboptimal as long as benefits received from the broker outside the game do not exceed the private benefit received from voting for the voter-preferred outcome within the game. To increase the plausibility of this assumption, the total payouts were made equivalent in each outcome of the game so, in expectation, participants cannot plausibly receive more in the leader-preferred outcome unless the broker somehow adds value to the monetary payoff (although some players may believe that the broker will redistribute unevenly back to the players, such that they would get higher extra-lab utility from the broker-preferred outcome than within-lab utility from the voter-preferred outcome).

Furthermore, it is strategically rational to vote for the broker-preferred outcome if and only if one believes that at least 75% of other players will do so. This sets a relatively high bar for choosing the broker-preferred outcome. Thus, the finding that 30% of Mourides choose the broker-preferred outcome does not imply that 30% of participants prefer this outcome. Rather, it implies that 30% of participants believe that a preponderance of players in their village will choose that outcome (or that their extra-lab utility of voting for the broker-preferred outcome is so much higher than the within-lab utility of voting for the voter-preferred outcome that it outweighs the risk implied by being in a relative minority).

Recall that villages in the anonymity treatment receive a script emphasizing the anonymity of the games. If fear of sanctions were driving participant behavior, we would expect less voting for the broker in the treated group relative to control. Figure 3 plots coefficient estimates for the regression of individual vote outcome on treatment status for the full sample, and then each of the subsamples corresponding to broker type (standard errors clustered by village).²⁰ The anonymity treatment has no effect in the aggregate, a positive effect on voting for the broker-preferred outcome among the Diola, and a negative effect among the Mouride. The latter finding is consistent with the idea that Mouride participants, who have more economically autonomous brokers, follow their broker out of fear of sanctions. The positive treatment effect in Diola villages was unanticipated, but qualitative data suggest a plausible explanation. The dominant norm with respect to game play among the Diola is to maximize individual and communal payoffs by voting for the socially optimal outcome. As defection is thus defined by voting for the broker-preferred outcome, the anonymity treatment may have allowed participants to more easily shirk the group norm and instead vote for the broker-preferred outcome. Several Diola participants said that even if the game were not anonymous, most people would vote for the socially preferred outcome.

Alternative Explanation

Following one's broker either out of fear of sanctions or due to anticipation of future benefits are instrumental explanations. Some individuals, however, may be motivated to follow their broker out of pure deference—an expressive preference that is not instrumentally motivated but rather an affective or spiritual attachment. The results of the anonymity experiment suggest that deference is not the sole driver of following one's broker. In the appendix, I test whether one measure of deference can explain part of the voter's choice to follow the broker. Using a series of ultimatum games played with the broker and fellow participants, I find that deference to the broker only has

explanatory power among the subset of Toucouleur communities. Existing scholarship on Mouride intermediaries suggests that an affective attachment or legitimacy based on spiritual reasoning motivates followers. However, there is no evidence in my data that more deferential Mouride followers are those voting for the broker-preferred outcome in the game.

Testing Observable Implications

While the results of the group-level analyses are striking, it is a blunt test of the predictions discussed in the theory section with respect to when brokers will be motivated to use distinct strategies to motivate voters. Given the considerable variation among brokers within group types (see Figure 1) and that surveys provide a more precise measure of broker autonomy and selection than group-level ethnographies, a better test of the theory exploits the full variation in broker characteristics across all 48 communities. The results, as reported in Section “Broker-Level Results,” yield similar outcomes to the cross-group analysis.

Using vote outcomes from the coordination game and anonymity experiment along with broker indices constructed from survey data, I test the following three broker-level hypotheses, derived from my argument and registered in a preanalysis plan:

Hypothesis 1—*Autonomy*: Where brokers are more autonomous, participants are more likely to choose the broker-preferred outcome.

Hypothesis 2—*Anonymity*×*Autonomy*: Where voters fear sanctions, the anonymity treatment should reduce voting for the broker-preferred outcome.

Hypothesis 3—*Competitive selection*: Where brokers are competitively selected, participants are more likely to choose the voter-preferred outcome.

The game outcomes alone are not able to test whether anticipation of reciprocity is also driving coordination on the broker-preferred outcome. Participant surveys thus measure whether the broker has recently provided direct transfers to the individual. Participants may be more likely to follow their broker in the context of the game if they believe that the broker will use game winnings to reciprocate cooperative behavior. One individual-level observable implication is that participants who have received transfers from the broker in the past are more likely to anticipate future transfers. Using survey data on past receipt of transfers from the broker together with data from the games, we can then test the following observable implications:

Table 3. Main Game Predictions.

Competition in selection	Economic autonomy from the community	
	Low	High
Low	Coordination on broker-preferred outcomes via reciprocity	Coordination on broker-preferred outcomes via sanctions
High	Coordination on voter-preferred outcomes	

Observable Implication 1—Reciprocity: If brokers use positive incentives to influence voters, then participants who have received prior transfers from the broker will be more likely to vote for the broker-preferred outcome in expectation of future reciprocity.

Observable Implication 2—Anonymity×Reciprocity: Because reciprocity also requires brokers to be able to monitor, anticipation of reciprocity is more likely to induce voting for the broker-preferred outcome where anonymity is less salient.

The theoretical discussion further assumes that brokers will use positive and negative incentives as substitutes, but prefer to employ negative incentives when they can as these are less costly to the broker. Thus, where brokers are more autonomous, they should be not only more likely to employ negative incentives but also *less* likely to employ positive incentives. A resulting testable implication is that the interaction between economic autonomy and anticipation of reciprocity is negatively correlated in predicting broker influence:

Observable Implication 3—Substitutes: Because negative and positive incentives should be substitutes for brokers, where there is insufficient anonymity and thus the expectation of some monitoring, the interaction between economic autonomy and expectation of reciprocity should be negative.

Key predictions from the game are summarized in Table 3.

Measuring Independent Variables

To construct the village-level *Competitive index* measuring how the broker is competitively selected, I create a composite mean effects index of two variables: The first is a binary indicator of whether the broker is competitively

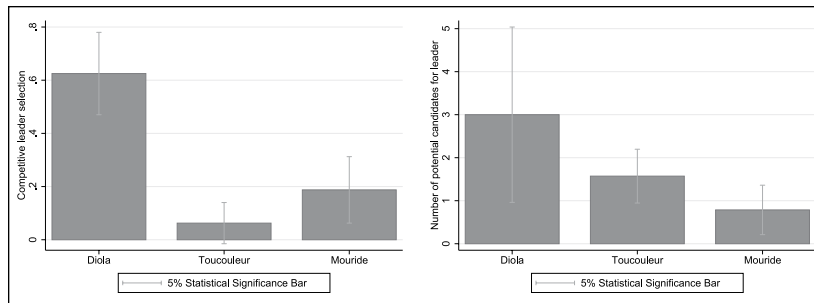


Figure 4. Competitiveness of broker selection by group type.

selected, constructed from self-reports to the question, “How did you become leader in this community.” It takes a value of 1 if the broker is selected by election or by a majority of the community, 0 if selection is hereditary or by an elite individual or group. The second component of the index is a continuous variable reflecting the self-reported number of other potential candidates for the position of broker at the time of selection. Following Anderson (2008), these variables are standardized, and then combined into a single index using an inverse covariate-weighted average. Figure 4 reports average broker responses by group, and shows that Diola brokers are much more likely to say they are competitively selected and have more potential competitors on average, though the latter difference is not statistically significant.

To construct the *Autonomy index* measuring the economic autonomy of brokers from participants in the village, I create another mean effects index using the same procedure described above with three components: The first is the ratio of the broker’s self-reported agricultural landholding (in hectares) to the participant’s self-reporting landholding. These figures are summarized by group in Figure 5. While there is little to no difference in average landholding between participants and brokers in the Diola and Toucouleur groups, this difference is large and significant among the Mouride. The second component of the index is a binary variable that indicates whether the broker has spent over 1 month outside the village; in rural Senegal, mobility is often an indication of wealth. The last component counts the number of sources of wealth reported by the broker such as salary, commerce, or other productive activities.

The individual-level variable *Reciprocity* is a proxy for the likelihood the participant expects future reciprocity from the broker. A binary variable takes the value of 1 if the participant has previously received a cash or in-kind transfers from their political intermediary as reported on the survey. Figure 6

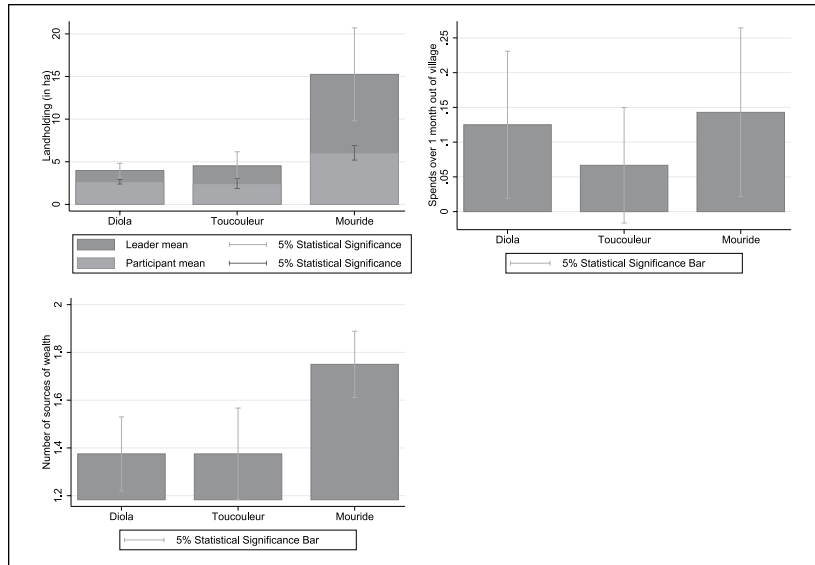


Figure 5. Autonomy of broker by group type.

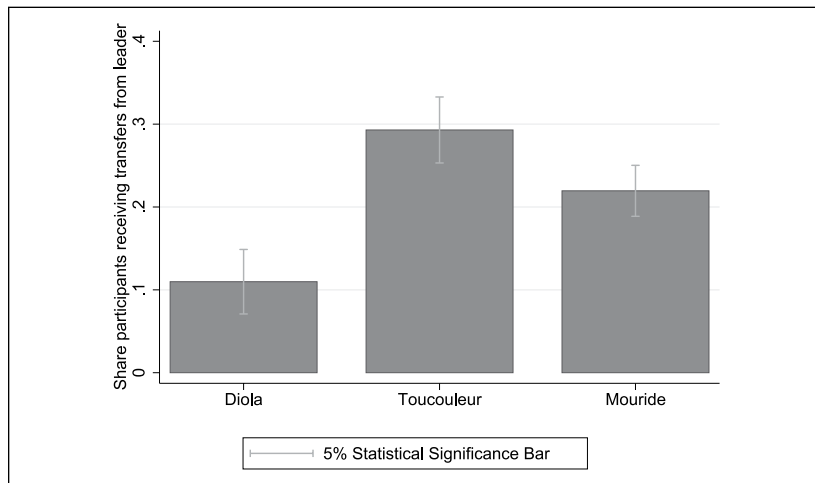


Figure 6. Reciprocity of broker by group type.

plots the mean index for each group type, demonstrating that the Diola are much less likely to receive targeted transfers from their brokers and the Toucouleur somewhat more.

Table 4. Institutional Correlates of Voting Behavior.

	(1)	(2)	(3)
Competitive index	-0.614** (0.295)	-0.600** (0.283)	-0.528** (0.257)
Autonomy index	0.184 (0.202)	0.449* (0.265)	0.463* (0.247)
Anonymity		0.105 (0.264)	0.179 (0.264)
Anonymity × Autonomy index		-0.623* (0.334)	-0.679** (0.334)
Education level			-0.265** (0.130)
Participant household material			0.344 (0.271)
Nonagricultural income			0.233 (0.241)
Village population			0.000* (0.000)
Proportion correctly naming broker			-0.174 (0.591)
Constant	-1.398*** (0.143)	-1.439*** (0.213)	-1.555*** (0.378)
N	764	764	764

Robust standard errors clustered at the village level in parentheses.

* $p < .10$. ** $p < .05$. *** $p < .01$.

Broker-Level Results

Exploiting variation in broker qualities across all 48 communities, I test Hypotheses 1 through 3; results reported in Table 4 support these predictions. Evidence presented in column 1 confirms Hypothesis 3 (Competitive selection) as the *Competitive index* is negatively and significantly correlated with voting for the broker-preferred outcome. In other words, villagers in communities with more competitively selected brokers are less likely to vote for the leader-preferred outcome.

In column 1, the *Autonomy index* is not significantly positively correlated with voting for the broker-preferred outcome as Hypothesis 1 (*Autonomy*) would predict. However, column 2 shows that this is due to the impact of the anonymity experiment. When *Autonomy* is interacted with an indicator for the Anonymity treatment, we see that its effect is highly conditional on whether participants believe that game play is anonymous. In the presence of increased anonymity (the treated group), economic autonomy of brokers is uncorrelated with vote choice; however, without emphasizing anonymous game play (the control group), greater economic autonomy is significantly and positively correlated with voting for the broker-preferred outcome as predicted by Hypothesis 2 (*Anonymity* × *Autonomy*). This finding is consistent

with Mares's (2015) book on voting secrecy which finds that in the absence of protections of voter anonymity, threats of postelectoral sanctions are powerful clientelist strategies.

Column 3 shows that results are robust to adding individual- and village-level controls that may also be predictors of the likelihood of voting for the broker-preferred outcome. Some relationships between control variables and voting go in the expected direction. An individual's education level is negatively and significantly correlated with voting for the broker-preferred outcome. Larger village size is also negatively correlated which may be a function of more diffuse or weaker broker control in larger or more developed places. However, measures of the participant's household material—an indicator of wealth level, and whether the broker's main source of income is agricultural—a plausible moderator of the autonomy index, are uncorrelated with the outcome. Importantly, the ability to name the political intermediary—one indicator of a village's political fractionalization—is uncorrelated with the dependent variable. This result refutes the alternative explanation that competitive leader selection is mediating voter behavior through social or political fragmentation rather than preference alignment.²¹

Together, these results confirm important heterogeneity among broker strategies, and that variation is correlated with more precise measures of competitive selection and economic autonomy of brokers than the group-level categorization described in Section "Results by Group Type."²² Some brokers in the game appear unable or unwilling to influence participants to take an action that is not in the participant's interest. These brokers are more likely to be selected competitively. Other brokers are able to induce followership when interests are unaligned through fear of sanctions. This strategy, however, only applies to brokers with sufficiently high economic autonomy and when participants expect lower levels of anonymity.

There are brokers whose behavior has not yet been explained—brokers like the Toucouleur who have insufficiently high levels of autonomy to threaten sanctions—but still elicit relatively high levels of followership in the game as shown in Table 2. From the theoretical discussion, this residual category of dependent, less competitively selected brokers could be generating influence due to anticipation of reciprocity or simply greater preference alignment. I investigate the former in Table 5. Recall, *Reciprocity* is an individual-level indicator of whether the participant reports having received a cash or in-kind transfer from the broker.²³ Here, I always control for whether the broker named in the survey (and about whom the reciprocity questions are asked) is the same political intermediary with whom the game is played; whether the participant reported a reciprocal relationship with a different

Table 5. Relationship Between Positive and Negative Inducements.

	(1)	(2)	(3)	(4)
Reciprocity	0.353 (0.235)	0.719* (0.392)	0.749* (0.393)	0.495 (0.350)
Correctly named leader	0.116 (0.252)	0.124 (0.251)	0.182 (0.416)	0.187 (0.418)
Anonymity		0.320 (0.288)		
Reciprocity × Anonymity		-0.680 (0.485)		
Autonomy index			0.694** (0.287)	0.594*** (0.230)
Reciprocity × Autonomy index			-0.673 (0.419)	-0.532 (0.379)
Competitive index				-0.501* (0.290)
Education level				-0.453* (0.252)
Participant household material				0.402 (0.389)
Nonagricultural income				0.006 (0.312)
Village population				0.000*** (0.000)
Constant	-1.460*** (0.216)	-1.626*** (0.293)	-1.689*** (0.375)	-1.758*** (0.460)
N	726	726	361	361

Robust standard errors clustered at the village level in parentheses.

* $p < .10$. ** $p < .05$. *** $p < .01$.

political intermediary should not be a determinant of the participant's game play with the intermediary in the game.

Models 1 and 2, respectively, test the first two observable implications elaborated in the previous section. Similarly to the case of *Autonomy*, *Reciprocity* is only correlated (at conventional levels of significance) with behavior in the game in the *absence* of the anonymity treatment. We thus find evidence in support of the second observable implication (*Anonymity* × *Reciprocity*) but not the first (*Reciprocity*). While this finding cannot rule out the possibility that more dependent leaders have more aligned preferences (which is partly addressed in the next subsection), it does support the claim that, unlike autonomous leaders who can motivate through negative incentives, dependent leaders will sometimes use positive incentives to influence followers.

Model 3 provides support for the third observable implication (*Substitutes*). As we know that *Reciprocity* and *Autonomy* only correlate with voting behavior in the absence of the anonymity treatment, the interaction model is run only on this subsample of villages. Here, reciprocity and economic autonomy indeed appear to be substitutes: Both are positively correlated with voting for the broker-preferred outcome but negatively correlated with each other (the coefficient on the interaction term is close to conventional levels of significance, $p = .108$). Model 4 shows that this relationship is qualitatively robust to the addition of the competitive selection index and individual- and village-level controls.

Discussion

The differences in the ways participants play the coordination game across villages suggest three distinct types of brokers: (a) persuasive types who motivate followers by virtue of their ideas or persuasion, (b) reciprocal types who motivate followers through personalistic transfers, and (c) extractive types who motivate followers through negative incentives.

This categorization has parallels in the psychology literature which identifies two paradigmatic leader types: *transformational* (persuasive leaders) and *transactional* (reciprocal; den Hartog, Van Muijen, & Koopman, 1997; Meindl, 1990; Quinn, 1988). Transactional leaders use contingent material and personal rewards to motivate individuals. Conversely, transformational leaders rely on stimulation, inspiration, vision, and idealism to motivate followers, and, as such, often challenge the status quo. Pearce et al. (2003) extend this binary typology, identifying *directive* (extractive) types, which rely on the leader's position of power and may resort to coercion, intimidation, and reprimand.

While there is considerable within-group variation in brokers, qualitative data on participant perceptions of broker characteristics show that there are also key distinctions across groups in ways that are consistent with the initial categorization of group types.

The highly educated Diola most resemble transformational leaders who can rely on intellectual stimulation to persuade followers. Six people in qualitative interviews describe Diola leaders as eloquent or effective communicators compared with one person in Toucouleur villages and nobody in Mouride villages; and 21 people describe Diola leaders as intelligent, educated, hard-working, committed, or accomplished, while this is true for only four people in Toucouleur villages and two people in Mouride villages.

The Toucouleur and the Mouride resemble transactional leaders who are more likely to provide targeted goods to followers. Eleven people describe Toucouleur leaders as charitable or generous compared with only three in Mouride villages and one in a Diola village. Toucouleur chiefs in three of four villages say that the intermediaries depend on villager support to acquire status.²⁴

Some traits of the Mouride are also consistent with a directive leadership style: their use of sanctions or coercion as demonstrated by the anonymity experiment and their greater likelihood to be negatively portrayed by followers. While participants almost never describe leaders in a negative light, two respondents in Mouride villages describe leaders as self-serving or self-interested. Furthermore, the Diola and the Toucouleur are much more willing to describe their leaders' positive traits: Among the same number of participants

surveyed, 115 adjectives were used to describe the Diola leaders compared with 106 for the Toucouleur and only 55 for the Mouride.

External Validity

The rich qualitative data obtained from four sample villages of each group type suggest that the lessons derived from observations of game play can reasonably be extrapolated to behavior in elections. First, Diola participants are far more likely to say they witness political campaigns, have intelligent brokers, and use the arguments they hear during the campaigns as input into their electoral calculus. Second, Mouride participants are more likely to rely on someone else's preference when making their own election decision. Third, Toucouleur participants are more likely to mention having received money from their political broker. I explore evidence for each in turn.

When asked to describe how they make electoral decisions, 14 of 16 participants in Diola villages cite individual reasoning,²⁵ saying, for example, "I decide on which candidate to vote for according to my convictions," or "I received advice on who to vote for from the intermediary and other political entrepreneurs, but that did not change my mind." Furthermore, five²⁶ say that they listen to electoral campaigns or speeches from candidates, while this is true for only one of the Mouride participants.²⁷ Rather than individual reasoning, seven of 16 participants in the Mouride villages say that they follow the advice of someone else: a religious guide, spouse, kin, or the political intermediary. In the survey, 82% of Diola respondents say that no one tried to influence their vote relative to 70% and 72% in the Mouride and Toucouleur communities.

Fear as a motivator was only mentioned once in all the qualitative data collection which is not surprising, given the lack of anonymity of these open conversations relative to voting in the games. This mention of fear in a Mouride village is, however, an indication that my interpretation of participant play in the game is consistent with the interpretation of the game by participants:

The marabout is a seer and has other mystical powers but he doesn't have any disciples. People have a certain fear of him and as a result, the anonymity guaranteed a secret vote. That's why participants dared to vote freely, only worrying about their personal interest.²⁸

In three of the four Toucouleur villages, people described receiving money directly from their political broker, and that it is a reason for broker influence.²⁹ A participant in one of these villages makes direct reference to vote

buying,³⁰ while the chief in another confirms the political broker distributes money to villagers at election time.³¹ Such mentions of monetary contributions never occurred in Diola villages. In one Mouride village,³² participants said that they could receive loans from their broker but only at usurious rates, and the money that the party accorded the broker for the purpose of distributing was kept by the broker.³³

Conclusion

To make sense of mixed theoretical predictions and empirical findings about the effect of brokers on democratic accountability, this project set out to uncover whether certain features of informal local institutions condition whether and why a community chooses to vote with a local broker. I argued that competitiveness of broker selection and their economic autonomy from the community will condition strategies used to motivate voters—with distinct normative implications. Brokers who are more competitively selected will have preferences more aligned with those of followers, and so the relatively costless strategy of persuasion is more likely to be effective. Others without such legitimacy must instead rely on instrumental motivations. Economic autonomy determines whether these brokers will use negative sanctions or positive rewards to influence followership at election time.

I tested these theories by implementing a novel coordination game across 48 villages in Senegal. To provide a salient illustration of the arguments and ensure maximal variation across the dimensions of interest, I sample from three culturally distinct groups that are shown to differ, on average, in the ways they select brokers and in the economic autonomy of brokers. When community and broker preferences are unaligned, as they are in the game, I find that voters with competitively selected brokers (with, thus, more credible messages) are less likely to be dissuaded from choosing the instrumentally optimal outcome. Voters with more economically autonomous brokers (who can, thus, more credibly threaten sanctions) are more likely to choose the instrumentally suboptimal outcome in the same game. I discriminate between whether fear of sanctions or noninstrumental sources of legitimacy are driving voter behavior with an anonymity experiment. I find that when voters are more cognizant of the anonymity of their vote choice, they are less likely to vote with the broker—but this only holds true in communities with autonomous brokers more capable of sanctioning. Reciprocal rewards also appear to motivate voters, but these are more likely used by brokers with insufficient economic autonomy as a substitute for sanctions.

Together, these findings have implications for the impact of local brokers on the accountability of elections. Where brokers are competitively selected,

and thus more aligned with their community, voters may be better off in a clientelistic electoral system where local brokers can use their position or status to obtain policies or collective benefits of value to the community. Where brokers have less latitude to use sanctions, followers are at least more likely to receive short-term benefits in exchange for voting against their personal interest. A natural extension of this research is examining how local institutions such as competitive broker selection and egalitarian social structure may be related to transitions away from clientelistic and toward more programmatic electoral strategies.

Appendix

Testing an Alternative Explanation

Following one's broker out of fear of sanctions or anticipation of future benefit are both instrumental explanations. Some individuals, however, may be motivated to follow their broker out of pure deference—an expressive preference that is not instrumentally motivated but rather an affective or spiritual attachment. The results of the anonymity experiment suggest that deference is not the sole driver of following one's broker. Here, I test whether one measure of deference can explain part of the voter's choice to follow the broker.

Ultimatum game to measure preferences. The anonymity treatment is a direct test of whether voters are motivated to follow their broker by fear of sanctions. To measure whether voters are instead, or even additionally, motivated by deference toward their broker, I employ a series of ultimatum games directly after the coordination game. Following the protocol in Henrich et al. (2001), each participant is randomly assigned to be either the proposer (Player 1) or the recipient (Player 2). Pairs know they are playing with another member of the group, but not the exact individual. Proposers make an offer of 0 to 1,000 Communauté financière d'Afrique (CFA) francs in increments of 100. Recipients state the minimum amount they are willing to accept from the proposer. If, in the predetermined pair, the offer is greater than or equal to the minimum amount accepted, the payout is made. Otherwise, nobody wins.

A second ultimatum game is played between each participant and the actual local broker identified during the coordination game. The broker is always the proposer and the participant the recipient. Because the broker is not in the room during game play, his proposal is assessed during the broker survey. To reduce priming effects, the order of game play is randomly assigned. The measure of deference toward one's broker is operationalized by comparing the minimum amount an individual would accept from the broker with the minimum amount the same individual would accept from a fellow participant. The

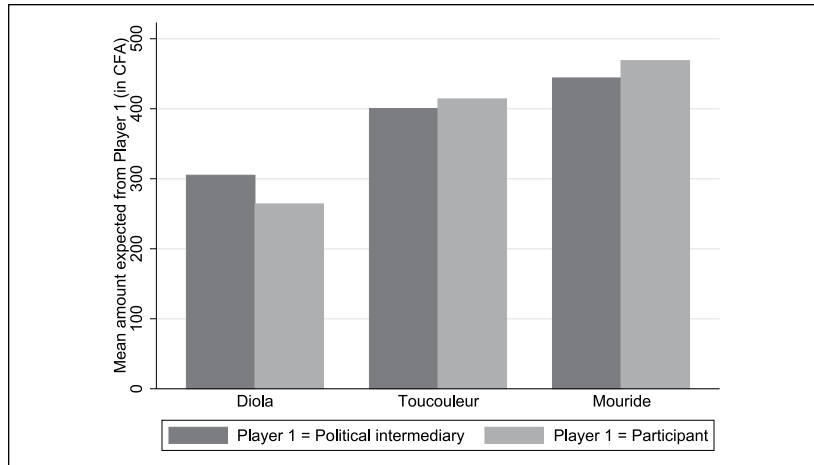


Figure A1. Difference in minimum amount accepted from broker versus participant, by group type.

less an individual is willing to accept from her broker relative to a fellow player, the more deferential is the individual to the broker.

Is some followership explained by noninstrumental deference? Deference to the broker is measured using the minimum amount of money a player says she will accept from the local broker in an ultimatum game, controlling for the minimum she will accept from a fellow participant in a separate ultimatum game (the order of games was randomly varied). A required assumption for this analysis is if the player believes her broker is legitimate and accountable, she should expect relatively more from the broker. In the ultimatum game, this would translate into the Respondent asking for a greater minimum transfer of money in the game in which the broker is the Proposer relative to a game in which the broker is a fellow villager. Those who accept relatively less are thus said to be more deferential.³⁴

Qualitative accounts would lead us to predict that the Mouride are more deferential than the other groups. There is evidence for this in Figure A1, which shows the average amounts players expect from their political intermediary relative to a fellow participant by group type. According to this measure, the Mouride are significantly more deferential on average than the Diola. Interestingly, the Mouride expect the most from their brokers and the Diola the least, but the Diola brokers offer the most to game players on average (825 CFA francs) and the Mouride least (747 CFA francs), but these differences are not statistically significant.

Table A1. Effect of Broker Deference on Voting for Broker-Preferred Outcome.

	Total	Diola	Toucouleur	Mouride
Amount accepted from broker (in 100s)	-0.017 (0.064)	-0.647 (0.421)	-0.151** (0.069)	0.076 (0.098)
Amount accepted from participant (in 100s)	-0.032 (0.061)	-0.172 (0.296)	-0.045 (0.071)	-0.127* (0.076)
Intercept	-1.176*** (0.319)	-0.516 (1.165)	-0.372 (0.492)	-0.715 (0.469)
N	381	128	127	126

Cluster-robust standard errors in parentheses.

* $p < .10$. ** $p < .05$. *** $p < .01$.

If participants in the coordination game vote for the broker-preferred outcome out of deference to authority rather than instrumental motivation, then more deferential players should be more likely to vote for the broker-preferred outcome. In Table A1, I regress the choice to vote for the broker-preferred outcome on the minimum amount a player will accept from the broker (in 100s of CFA francs), controlling for the minimum amount a player will accept from a fellow participant.³⁵ Smaller coefficients on the amount accepted from the broker indicate higher levels of deference. The results show that among Toucouleur participants only, more deferential players are more likely to vote for the broker-preferred outcome.³⁶

That the Diola are neither particularly deferential and that deference does not explain why they vote for the broker suggests that competitiveness of selection does not seem to induce greater deference among followers. However, this analysis does suggest that dependent brokers like the Toucouleur may not need to rely on instrumental means to motivate followers; they may also elicit followership for expressive reasons, perhaps generated by increased legitimacy or preference alignment.

Author's Note

The registered preanalysis plan for this study can be found at <http://egap.org/registration/678>. Replication materials can be found at <http://dx.doi.org/10.7910/DVN/WL27LZ>.

Acknowledgments

I am grateful for financial support for this project (see Funding section for the list of funders). I thank Guy Grossman, James Fearon, Jeremy Weinstein, and members of Experiments on Government and Politics (EGAP) for their invaluable advice on the research design. I also thank Eddy Malesky, Dominika Koter, Gina Reinhardt, Fred Finan, Dan Butler, Ryan Jablonski, Jordi Munoz, Horacio Larreguy, three anonymous reviewers, and participants of the Midwest Group on African Political Economy, the

Berkeley Conference on Brokering Votes, and the Program on International Conflict and Cooperation at Texas A&M for their comments. I am indebted to Fodé Sarr, Kelsey Barrera, Susana Svojsik, and Kwame Twumasi-Ankrah for their superior research assistance and to Susana for additionally assisting with qualitative data analysis. All errors are my own.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship and/or publication of this article: The Center on Conflict and Development, a U.S. Agency for International Development (USAID) Development Lab at Texas A&M University, the Scowcroft Institute, the Program to Enhance Scholarly Activities and the Bush School at Texas A&M University and for the pilot phase, UC Berkeley's Center for Effective Global Action and Stanford's Center for Democracy, Development and the Rule of Law.

Notes

1. Stokes, Dunning, Nazareno, and Brusco (2013) find that a broker-mediated model of clientelism explains divergent empirical findings better than models that ignore the role of brokers.
2. In Argentina, neighborhood-level brokers monitor voters, rewarding support and punishing defection.
3. Voters in Zambia are not coerced by customary chiefs but rather vote with them when they believe it is in their best interest.
4. In an extension of the games, I experimentally manipulated the competitiveness of selection and autonomy of an artifactual "broker" chosen from among village participants. This extension, however, generated insufficient variation in outcomes to test hypotheses because the preponderance of participants did not expect the artifactual broker to wield influence outside the game as they did the true broker.
5. I define economic autonomy as access to independent or external sources of wealth that are not contingent upon inputs from the community.
6. Eighty-seven percent of Senegalese belong to four major ethnic groups (Wolof, Peul, Serer, and Diola) and although the vast majority of the population is Islamic, Muslims are subdivided into several politically salient Islamic brotherhoods. These ethnic and religious groups differentially structure the behavior of brokers and their followers.
7. While they are primarily interested in explaining variation in relationships between local brokers and the state or political parties, this article focuses on the relationship between local brokers and their followers.
8. Three quarters of local intermediaries in the study sample have at least monthly contact with commune-level party members.

9. Only about half of intermediaries in the study sample claimed that they never switched parties.
10. In this study's 48 sample villages, there was never hesitation by the village chief in identifying one or more *intermédiaires politiques*.
11. This was the case in only about 10% of the study sample.
12. This is the case in 81% of the study sample.
13. Villages 2, 4, and 11.
14. Villages 39, 59. In Village 38, the intermediary is also the marabout.
15. Village 37.
16. The protocol for these and other games played during the experiment is provided in Online Appendix B.
17. When there are multiple intermediaries, the chief is asked to identify the most representative of them. The broker is almost never the same person as the village chief—this happens in only four cases, though they are biological relations in half of the cases.
18. Similar to Henrich et al. (2001)'s study which conducts two-person behavioral games in 15 culturally distinct settings, I find that behavior in the games is highly conditional on features of the local institutional context.
19. Household survey responses from the project verify that 90% of respondents in the Diola communities identify as Diola, 97% in the Mouride communities identify as such, and 98% in the Toucouleur communities identify as Toucouleur or Peul.
20. To ensure that outcomes are not an artifact of the choice of game broker (given that the Mouride were more likely to recognize the game broker as their broker), I control for a subject-level variable indicating whether this was the case and a village-level variable for the percentage of subjects in the round for whom this was the case. Results are robust to their exclusion.
21. As an illustration of this distinction, we know that brokers are rarely competitively selected in Mouride communities; however, Mouride villagers can still have a choice in the broker they choose to follow. Similarly, while Mouride marabouts are seldom competitively selected themselves—most often inheriting the position—disciples have been shown to have a choice over which marabout they pledge allegiance to (Villalón, 2006).
22. Indeed, the coefficients on Competitive and Autonomy attenuate when group fixed effects are included in the regression. That they do not entirely go away suggests that the categorization captures some but not all of the variation in the measures of Competitive and Autonomy.
23. Because these analyses link game play to survey data, I drop the 29 cases in which the individual who took the survey could not be located for the game, and so was replaced by a comparable individual (same gender and age group).
24. Villages 27, 29, 31.
25. P2-4, Village 2; P1-4, Village 4; P1-4, Village 11; P2-4, Village 12.
26. P3 and 4, Village 2; P2 and 3, Village 4; P2, Village 11.
27. P1, Village 38.
28. P3, Village 38.
29. P1 and P2, Village 27; P1, Village 29; Chief, Village 31.

30. P3, Village 27.
31. Chief, Village 31.
32. Village 38.
33. P1, Village 38.
34. The wording in the game underscores this interpretation in that the player is asked, "What is the minimum amount of money you would accept from the Proposer?"
35. Because half of participants are the Respondent in games with both the broker and a fellow participant as the Proposer, I use only half the sample.
36. This relationship is not contingent on anonymity.

References

- Acemoglu, D., Reed, T., & Robinson, J. A. (2014). Chiefs: Economic development and elite control of civil society in Sierra Leone. *Journal of Political Economy*, *122*, 319-368.
- Ahlquist, J. S., & Levi, M. (2011). Leadership: What it means, what it does, and what we want to know about it. *Annual Review of Political Science*, *14*, 1-24.
- Anderson, M. L. (2008). Multiple inference and gender differences in the effects of early intervention: A reevaluation of the Abecedarian, Perry Preschool, and Early Training projects. *Journal of the American Statistical Association*, *103*, 1481-1495.
- Baldwin, K. (2013). Why vote with the chief? Political connections and public goods provision in Zambia. *American Journal of Political Science*, *57*, 794-809.
- Baldwin, K. (2015). Hereditary rule in democratic Africa. In M. Ndulo & M. Gazibo (Eds.), *Growing democracy in Africa: Elections, accountable governance and political economy*. Oxford, UK: James Currey.
- Baldwin, K., & Mvukiyehe, E. (2011). The effects of participatory processes for selecting leaders: Evidence from changes to traditional institutions in Liberia. *World Politics*, *67*, 690-725.
- Beck, L. J. (2008). *Brokering democracy in Africa: The rise of clientelist democracy in Senegal*. New York, NY: Palgrave Macmillan.
- Boone, C. (2003). *Political topographies of the African state: Territorial authority and institutional choice*. Cambridge, UK: Cambridge University Press.
- Calvert, R. (1992). Leadership and its basis in problems of social coordination. *International Political Science Review*, *13*, 7-24.
- Chandra, K. (2007). *Why ethnic parties succeed: Patronage and ethnic head counts in India*. Cambridge, UK: Cambridge University Press.
- Dal Bó, P., Foster, A., & Putterman, L. (2010). Institutions and behavior: Experimental evidence on the effects of democracy. *The American Economic Review*, *100*, 2205-2229.
- den Hartog, D. N., Van Muijen, J. J., & Koopman, P. L. (1997). Transactional versus transformational leadership: An analysis of the MLQ. *Journal of Occupational and Organizational Psychology*, *70*, 19-34.
- Dewan, T., & Myatt, D. P. (2007). Leading the party: Coordination, direction, and communication. *American Political Science Review*, *101*, 827-845.

- Dickson, E. (2010). *Leadership, followership, and beliefs about the world: An experiment*. Unpublished manuscript. Retrieved from http://www.msw.uni-oldenburg.de/exp-pol/download/Paper_Dickson.pdf
- Gine, X., & Mansuri, G. (2011, June). *Together we will: Evidence from a field experiment on female voter turnout in Pakistan* (World Bank Policy Research Working Paper No. 5692). Retrieved from <http://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-5692>
- Gottlieb, J., & Larreguy, H. A. (2016, October). *An informational theory of electoral targeting: Evidence from Senegal* (CPD Working Paper 2016-15). Retrieved from https://www.dropbox.com/s/32czs256pstfe9q/GL_SenegalElectoralBehavior_Website_New.pdf?dl=0
- Grossman, G. (2014). Do selection rules affect leader responsiveness? Evidence from rural Uganda. *Quarterly Journal of Political Science*, *9*, 1-44.
- Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., & McElreath, R. (2001). In search of homo economicus: Behavioral experiments in 15 small-scale societies. *American Economic Review*, *91*, 73-78.
- Keefer, P., & Vlaicu, R. (2008). Democracy, credibility, and clientelism. *Journal of Law, Economics, & Organization*, *24*, 371-406.
- Koter, D. (2013a). King makers: Local leaders and ethnic politics in Africa. *World Politics*, *65*, 187-232.
- Koter, D. (2013b). Urban and rural voting patterns in Senegal: The spatial aspects of incumbency, c. 1978-2012. *Journal of Modern African Studies*, *51*, 653-679.
- Larreguy, H. (2013). *Monitoring political brokers: Evidence from clientelistic networks in Mexico* (Working paper). Retrieved from <http://economics.mit.edu/files/8456>
- Lemarchand, R., & Legg, K. (1972). Political clientelism and development: A preliminary analysis. *Comparative Politics*, *4*, 149-178.
- Lierl, M. (2014). *Preferences or incentives? Experimental evidence on the accountability of village leaders*. Unpublished manuscript. Retrieved from <http://www.maltelierl.info/files/Lierl2014a.pdf>
- Mares, I. (2015). *From open secrets to secret voting: Democratic electoral reforms and voter autonomy*. New York, NY: Cambridge University Press.
- Mares, I., & Young, L. (2016). Buying, expropriating, and stealing votes. *Annual Review of Political Science*, *19*, 267-288.
- Martinez-Bravo, M. (2014). The role of local officials in new democracies: Evidence from Indonesia. *The American Economic Review*, *104*, 1244-1287.
- Meindl, J. R. (1990). On leadership: An alternative to the conventional wisdom. *Research in Organizational Behavior*, *12*, 159-203.
- O'Brien, D. B. C. (1975). *Saints and politicians: Essays in the organisation of a Senegalese peasant society*. Cambridge, UK: Cambridge University Press.
- Pain, A., & Kantor, P. (2010). *Understanding and addressing context in rural Afghanistan: How villages differ and why* (Afghanistan Research and Evaluation Unit Issue Paper Series). Retrieved from <https://www.gov.uk/dfid-research-outputs/understanding-and-addressing-context-in-rural-afghanistan-how-villages-differ-and-why>

- Pearce, C. L., Sims, H. P., Jr., Cox, J. F., Ball, G., Schnell, E., Smith, K. A., & Trevino, L. (2003). Transactors, transformers and beyond: A multi-method development of a theoretical typology of leadership. *Journal of Management Development*, 22, 273-307.
- Quinn, R. E. (1988). *Beyond rational management: Mastering the paradoxes and competing demands of high performance*. San Francisco, CA: Jossey-Bass.
- Rojo, G., Jha, S., & Wibbels, E. (2015). *Political networks, clientelism and public goods: Evidence from slums in Udaipur, India*. Unpublished paper. Retrieved from https://sites.duke.edu/wibbels/files/2014/10/Rojo_Jha_Wibbels.pdf
- Rueda, M. R. (2015). Buying votes with imperfect knowledge and a secret ballot. *Journal of Theoretical Politics*, 73, 428-456.
- Schedler, A., & Schaffer, F. C. (2007). What is vote buying? In F. C. Schaffer (Ed.), *Elections for sale: The causes and consequences of vote buying* (pp. 17-30). Boulder, CO: Lynne Rienner.
- Scott, J. C. (1972). Patron-client politics and political change in Southeast Asia. *The American Political Science Review*, 66, 91-113.
- Smith, A., & Bueno De Mesquita, B. (2012). Contingent prize allocation and pivotal voting. *British Journal of Political Science*, 42, 371-392.
- Stokes, S. C. (2005). Perverse accountability: A formal model of machine politics with evidence from Argentina. *American Political Science Review*, 99, 315-325.
- Stokes, S. C., Dunning, T., Nazareno, M., & Brusco, V. (2013). *Brokers, voters, and clientelism: The puzzle of distributive politics*. New York, NY: Cambridge University Press.
- Van Vugt, M. (2006). Evolutionary origins of leadership and followership. *Personality and Social Psychology Review*, 10, 354-371.
- Villalón, L. A. (2006). *Islamic society and state power in Senegal: Disciples and citizens in Fatick* (Vol. 80). Cambridge, UK: Cambridge University Press.
- Weinstein, J. M. (2007). *Inside rebellion*. Cambridge, UK: Cambridge University Press.

Author Biography

Jessica Gottlieb is an assistant professor at Texas A&M's Bush School of Government & Public Service with a PhD in political science and MA in economics from Stanford University. Her research focuses on the political economy of development and, in particular, constraints to government accountability in new democracies including information asymmetries and voter coordination failures, informal institutions and clientelism, and unequal gender norms. Much of her research has been in sub-Saharan Africa where she has conducted field experiments, behavioral games, and surveys.