Clientelism and Voting Behavior:

A Field Experiment in Benin[*]

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Abstract

I conducted a field experiment in Benin to investigate the impact of clientelism on voting behavior. In collaboration with four political parties involved in the 2001 presidential elections, clientelist and broad public policy platforms were designed and run in twenty randomly selected villages of an average of 756 registered voters. Even after controlling for ethnic affiliation, I find that clientelist platforms have significant effect on voting behavior. The effect was strongest for incumbent and for "local" candidates. The evidence indicates that female voters tend to prefer "national" candidates, especially when they run on public policy platform. In contrast, male voters tend to prefer "local" candidates especially when they run on clientelist platform.

I. INTRODUCTION

Comparative politics scholars have long considered electoral politics in Africa to be systematically and inherently clientelist. African rulers, whether self-appointed or democratically elected, rely on the distribution of personal favors to selected members of the electorate in exchange for continuous political support.[1] This observation relies on the implicit assumption that African voters invariably have a much stronger preference for private transfers than public goods or projects of national interest. In this article, I use experimental methods to test several hypotheses pertaining to electoral clientelism in Benin and thereby investigate the determinants of the voters' demand for public goods.

My strategy consists of a unique field experiment that took place in the context of the first round of the March 2001 presidential elections in Benin and in which randomly selected villages were exposed to "purely" clientelist and "purely" public policy platforms. The experiment is unique in the sense that it involves *real* presidential candidates competing in *real* elections. To the best of my knowledge, it is first ever nationwide experimental study of voter behavior involving real candidates using experimental platforms. The questions are: given ethnic affiliation, do types of message (clientelism or public policy) have an effect on voting behavior? Is clientelism always a winning strategy? Under which types of message do incumbents or opposition hold a comparative advantage? Are female voters as likely to respond to clientelism as men? Are younger voters more likely to respond to clientelism than older voters?

Clientelism is defined as transactions between politicians and citizens whereby material favors are offered in return for political support at the polls. Thus, clientelism is a form of interest group politics which has been the focus of a large body of literature in American and European politics.[2] However, while the standard interest

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[1] Bates [1982], Bayart [1989], Scott [1972] and Bratton and Van de Walle [1994] among others.

[2] For a review see Cain, Ferejohn and Fiorina (1987).

group politics take place in the context of organized competition among groups which could eventually lead to the representation of a variety of interests by one political party, clientelism is characterized by the representation of narrow corporatist and local interests. In addition, while interest groups' influence tends to be filtered by the mechanisms of checks and balances, those mechanisms tend to be absent or ineffective in the context of clientelism (Kugler and Rosenthal, 2000).[3]

A large body of the comparative politics literature has investigated the nature of patron-client relationships, the inefficiency of various forms of clientelist redistribution and conditions for its decay. The common conclusion is that clientelist politics are most attractive in conditions of low productivity, high inequality and starkly hierarchical social relations.[4] Others stress the importance of culture, historical factors, levels of economic development and the size of the public sector economy. While studies of the social and economic determinants of clientelism can help understand its origin and derive some general conditions for its decline, they are not very helpful in explaining variance in the intensity of clientelist linkages within countries and the prevalence of clientelism in advanced and affluent democracies.

A parsimonious study of the impact of clientelism on voting behavior is important to social scientists for a variety of reasons. First, clientelism generates excessive redistribution at the expense of public goods provision as politicians wastefully divert government resources to favored segments of the electorate. Second, since budgetary procedures in many countries either lack transparency or are discretionary,

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[3] According to Brusco, Nazareno and Stokes (2002) a clientelist model is characterized by present-oriented interaction, where people trade their votes for immediate payoffs such as rice, a steak and a job. Thus clientelism is contrasted with forward looking choices over programs and backward-looking evaluation of past performance. In my view, clientelist electoral politics can involve as much forward-looking or backward-looking choices as programmatic politics. In addition, for the purpose of the experiment, I focus constituency services and patronnage jobs instead of direct payment (rice, steak or cash).

[4] See Robinson and Verdier (2000) for an analysis of the affect of income inequality, low productivity and poverty on clientelism.

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clientelism tends to favor those already in control of the government and therefore consolidates incumbency advantage in democratic elections. Such advantage and the ensuing decline in political competition could incite the opposition to resort to political violence, thereby generating political instability and possibly the collapse of the democratic process. Third, a methodical study of electoral clientelism could reveal the existence of gender or generation gap(s), incumbency effects and other results that could have important policy implications.

Consider the issue of a gender or generation gap for example. In a given region or within a given ethnic group, promise of government jobs might be less appealing to women than men because men are more likely to be the beneficiaries.[5] In contrast, electoral promises related to public health or children welfare such as vaccination campaigns could have a greater impact on women's voting behavior than patronage jobs. Income transfers could be less appealing to younger voters because such transfers disproportionately benefit older voters. In other words, younger voters or rural women might be systematically excluded from the most common forms of clientelist redistribution, and those groups could therefore be more responsive to public goods platforms. This would imply that initiatives to promote women's participation in the political process at all levels of government is likely to help improve the provision of public goods.

On the supply side of clientelist goods, it could well be the case that incumbents are more credible in delivering on those goods than opposition candidates. Such credibility could be enhanced if the incumbent has some discretion over distributive policies. Discretion over when and how to spend government resources allows the incumbent to undermine the credibility of opposition candidates by, for instance, making up-front payments to voters. Here is an example: suppose that the incumbent wants to secure votes from a given district. Suppose that both the incumbent and the opposition make identical offers to voters at the political campaign stage, e.g. hire five natives

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[5]Government statistics indicate that, in 1997, women represent only 18% of the low level public sector work force and 6% of the high level public sector workforce in Benin.

from the district in the government. Then the incumbent could spend some current government resources to hire two natives of this district and claim that it would hire three more if elected. Such a move clearly makes the incumbent more credible than the opposition: in case of an opposition victory, the two native officials are likely to lose their jobs and the district might end up empty-handed, while an incumbent victory already guarantees it two patronnage jobs, with three more to follow after the election. In other words, the incumbent could use its discretionary power over current government spending to create a "lock-in effect" in resource allocation and dominate the opposition at the polls.[6] In any case, if incumbency advantage over clientelism is empirically validated, it would imply that term limits and limited incumbent discretion on budgetary procedures would improve the delivery of public goods.

Another important question raised in the literature is the extent to which clientelism reinforces or weakens ethnic voting. In this paper, I investigate this question by selecting ethnically homogeneous experimental districts and measuring how much a candidate vote share would change if he were to switch from a clientelist platform to a broad public policy platform. The result provides a measure of the level of intensity of ethnic identity as well as the strength of clientelist appeals. It is an important and certainly novel exercise since according to Kitschelt (2000) "the rigorous operationalization of linkage mechanisms, particularly clientelism is absent from the comparative politics literature" (p. 869). In addition, surveys methods do not provide reliable and unbiased measures of clientelism because it (clientelism) is perceived by most politicians and voters as morally objectionable. So we are left with subjective assessment

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[6]For instance a major government reshuffling took place during the two years preceding the 2001 elections with key portfolios such as Foreign Affairs, Economy, and Finances being allocated to natives of politically important districts such as Djougou in the North West and Ketou in the South-East. Also, in a number of districts, several government projects (construction of city halls, roads, schools, etc.) started a couple of months before the March 2001 election, with local representatives of the incumbent parties claiming openly that their completion is contingent on the outcome of the election.

of the intensity of clientelist appeals based on competing value judgement by social scientists.[7]

The main contribution of this paper is first to address key empirical questions pertaining to clientelist politics (like the ones discussed above) using unique experimental data and second to help provide an empirical foundation for the growing theoretical literature on redistributive politics and clientelism. The experiment empirically validates the view that electoral politics in Benin is dominated by clientelism. The results further develop and expand the conventional wisdom in African politics by establishing that (1) clientelist appeals re-enforce ethnic voting (not the way round), (2) voters's preference for clientelist or public goods messages depends in large part on political factors such as incumbency and demographic factors such as gender. Before I describe the nature of the experiment, discuss the results and their relation to the literature, I briefly present some background information on electoral politics in Benin, followed by a discussion of the theoretical foundation of the experiment.

II. THE CONTEXT

The Republic of Benin (former Dahomey) is located in West Africa between Togo and Nigeria with a Southern frontage on the Atlantic Ocean. The majority of the country's population (6,200,000) falls within four major ethnolinguistic groups: Adja in the south-west, Yoruba in the south-east, Fon in the south and center and Bariba in the north. Benin was colonized by France in 1894 and gained independence in 1960. The first twelve post-independence years were characterized by political instability with an alternation of civilian and military rule. The country experienced its fifth and last military coup in 1972. The coup paved the way for a dictatorial regime led

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[7]Kitschelt suggests that we label a polity as clientelist if we find that programmatic parties are incohesive and the experts attribute high scores of corruption to that country (p. 871). This is clearly not a solution. Even if clientelism and corruption be might correlated, they are two separate political categories. Moreover, current measures of corruption are subjective assessments by foreign investors and businessmen.

Mathieu Kerekou, which lasted for 18 years.

In February 1990, mass protest and economic pressure by France led the military regime to convene a national conference (a gathering of representatives of all the political groups of that time) that gave birth to a democratic renewal (Heilburnn [1993], Nwajiaku [1994]). A transition government and parliament were created and a new constitution written and approved by referendum, providing for a multiparty democracy. Since then Benin has experienced three parliamentary and two presidential elections. The president is elected through simple majority with run-off elections.[8]

The unicameral parliament is constituted of legislators elected under a closed list proportional representation (the proportionality is per electoral district). The seats are distributed according to a "district quotient." This quotient is obtained by dividing the votes effectively expressed per district by the district magnitude. Then the number of seats by party or coalition of parties is obtained by dividing its vote share by the district quotient; the remaining seats are attributed to the party or coalition with the largest remainder. A party or coalition of parties is allowed to take part in an election if it is able to present lists in every single electoral district. Since January 1999, the total number of seats in the parliament has been 83, distributed over 84 electoral districts.

The country's first presidential election took place in 1992 and was won by Nicéphore Soglo, a former World Bank official. He was Prime Minister in the transition government that governed the country from 1990 to 1992. The country had its second regular presidential contest on 3 March 1996 and Nicephore Soglo lost to Mathieu Kerekou, the former autocrat. Kerekou won again in March 2001 for what will be his last term in office.

There are currently six main political parties in Benin, with three of them in the opposition coalition and the other three in the government coalition. The main government parties are the Action Front for Renewal and Development (FARD-Alafia)

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[8]That is, if no candidate reaches this majority during the first round, a second round is organized for the top two of the list and the relative majority winner wins the election.

led by Saka Salley, which provides the main grassroots support for the current government in the northern region, the Social Democratic Party (PSD) which is led by Bruno Amoussou and based in the south west and the "Our Common Cause" party led by Albert Tevoedjre and based in the south-east. The opposition coalition is comprised of the Benin Renaissance party (RB) based in the south and central regions and led by the former presidential couple Nicephore and Rosine Soglo, the Union of Democracy and National Solidarity (UDS), led by Saka Lafia and based in the north-east region and finally the Party for the Democratic Renewal (PRD), led by the current National Assembly President Adrien Houngbedji and based in the south-east region.

Benin presents a number of advantages for an experiment on clientelism. It is considered one of the most successful cases of democratization in Africa and has a long tradition of political experimentation.[9] Also, the distribution of votes in previous elections in the country is such that the risk of a field experiment seriously affecting the outcome of the 2001 election was non-existent. This is because (1) the nationwide election outcomes have always revealed a significant gap between the top two candidates (Kerekou and Soglo) and the remaining candidates and (2) electoral support for those top two candidates has always been between 27 to 37%.[10] As a result, a second round election opposing Kerekou and Soglo in the 2001 presidential elections was a near certainty. This, together with the fact that the experiment took place mostly in the candidates' stronghold makes the experiment not risky for parties, which explains why they agreed.

[9]For instance, the political leaders in Benin were the first to introduce the rotating presidency formula to curb ethnic strife in 1969. They also invented the national conference formula in 1989 as a way of facilitating a peaceful post-authoritarian transition (Boulaga [1993])

[10]In 1991, Soglo obtained 27.2% of the vote, Kerekou 36.30 and the next candidate Tevoedjre 14.21%. In 1996, Soglo received 35.69% of the vote, Kerekou 33.94% and Houngbedji 19.71%.

III. EXPERIMENTAL DESIGN

The analytical framework of the experiment is the standard model of redistributive politics developed by Lindbeck and Weibull (1987), Dixit and Londegran (1996) and more recently Lizzeri and Persico (2002). There are three political actors in these models: two political parties and a set of citizens/voters. Parties can differ in their ideological position or their electoral platforms. The platforms can take the form of redistributive transfers to one or several groups of voters, the form public goods provision or both. Each voter has ideological affinity for either party and this level affinity is known only to the voter. Under these assumptions, electoral outcomes are uncertain and determined by the distribution of voters's ideological affinities and the parties' platforms. In this paper, I simply replace ideological affinities by ethnic affinities and assume that citizens have ethnic affiliations or affinities and care about the fact that a member of their ethnic group or someone relatively close to their ethnic group is elected. The citizen might in fact also dislike the fact that a candidate from a specific ethnolinguistic origin is elected. The aim of this project is to measure the relative electoral gain or loss associated with campaign promises based on clientelism (transfer) as opposed to the ones based on public policy (public goods).

Experimental districts and villages

Voters in Benin are divided into 84 electoral districts of which five or six are fairly competitive. Thus, for the purpose of the experiment, eight non-competitive districts have been selected.[11] Of these eight, there were four incumbent-dominated and four opposition-dominated districts. In each non-competitive district, villages were partitioned into three subgroups. The first subgroup composed of one village was the "clientelist" treatment group in which candidates were exposed to a clientelist message. The second subgroup also composed of one village was the "public policy"

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[11] Two competitive districts have also been selected. As I explain below, the procedures and the theoretical foundation of the experiment in those two districts are different than the ones in the non-competitive districts.

treatment group in which voters were exposed to broad nationally-oriented messages and the third subgroup was the control group which was composed of the remaining villages of the district in which both types of messages were run.

The main candidates competing in the election were Kerekou, the incumbent president endorsed by the FARD Alafia; Amoussou Bruno from the PSD; Nicephore Soglo from the RB; Saka Lafia from the UDS and Adrien Houngbedji of the PRD. In order to take into consideration the regional competition between the opposition coalition and the incumbent coalition, I selected for the experiment Lafia and Kerekou (two Northern candidates), and Soglo and Amoussou (two Southern candidates). Kerekou and Soglo were the two leading candidates and national figures. A candidate is defined as a national candidate if in the 1996 elections he has won at least 20% of the vote in more than one of the six regions of the country. Otherwise he is a local candidate. With the help of a team of consultants, I contacted the leadership of the selected parties to secure their participation in the subsequent stages of the project. I define as an experimental candidate, a candidate that has been selected and has agreed to run an experimental political campaign in a given district.

In collaboration with the campaign managers of the four selected parties, past election results were used to identify the districts that were strongholds of each of the parties and districts that were competitive. A district is a stronghold of a party if the candidate endorsed by the party has won at least 70% of the votes in the two past presidential elections; Otherwise, it is competitive. Among the six strongholds of FARD-Alafia/ Kerekou, Kandi and Nikki have been selected. Using the same procedure we have selected Perere and Bimbereke for UDS/Saka Lafia, Abomey-Bohicon and Pahou-Ouidah for RB/Soglo and finally Aplahoue and Dogbo/Toviklin for PSD/Amoussou. Two districts of competition (Come and Parakou), have been selected. Come is located in south west, jointly controlled by Amoussou and Soglo while Parakou is located in the north and is jointly controlled by Kerekou and Lafia.

Within each experimental district, two villages have been selected. In any non-competitive district, one village was treated with a clientelist platform, the other one

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with a public policy platform, and the other villages of the district served as the control group. In a competitive district, there were also two experimental villages. In the first village, there was one candidate running clientelism while the other was running on public policy. The roles were reversed in the second village. As in the non-competitive case, the remaining villages in the district served as the control group. All villages and districts involved in the experiment are defined as experimental villages and districts. The aggregate sample in the non-competitive districts is 6,633 registered voters for clientelist villages, 6,983 voters for "public policy" villages, and about 220,000 for control group. The sample size of the experimental villages in the two competitive district is 4,503 voters and about 80,000 for the control group. The map in appendix presents the geographic location of all the experimental districts and villages.

Non-competitive districts have the advantage of being less likely to be exposed to the regular, non-experimental national campaign, and are ethnically homogenous. They tend to have similar political and even demographic characteristics such as past electoral behavior, age, gender, education and income. Therefore, two randomly selected villages could therefore be perceived as identical, enabling a relatively identification of the treatment effect.

To make sure that those who were assigned to clientelism were not exposed to public policy and vice-versa, 16 selected villages were at least 20 miles with 4 to 10 villages between them. The remaining four were approximately 5 miles apart, separated by 2 to 6 villages. In other words, the risk of contagion between the two treatment groups was minimized so that the two treatments remained mutually exclusive and uncorrelated. Table I presents the list of experimental districts and some of their political and demographic characteristics. The first column presents the districts, followed by the candidates, the villages and the types of treatment. The final two columns present the dominant ethnic groups and the number of registered voters in each district.

Insert Table I here

Evaluating the treatment effect by simply comparing voting behavior of those in a clientelist treatment group and those in the "public policy" or the control group could lead to an underestimation of such an effect. This could be the case if voters who have been reached by campaign workers were more likely to favor one candidate or another. The effect is underestimated simply because only a fraction of the intent-to-treat group is actually treated. Following Gerber and Green's (2000) solution to similar problems in the context of their canvassing experiment, one could identify the treatment effect in a given district by subtracting the voting rate for the relevant candidate of, say, the clientelist village from the voting rate for the relevant candidate in the "public policy" village and divide the difference by the observed contact rate.

Design of experimental platforms

Once the selection of the villages was complete, the different types of campaigns were designed with the active collaboration of campaign managers of the parties. It was decided that any "public policy" platform raise issues pertaining to national unity and peace, eradication of corruption, poverty alleviation, agricultural and industrial development, protection of women and children rights, development of rural credit, access to the judicial system, protection of the environment, and/or education reforms. A clientelist message, in contrast, takes the form of a specific promise to the village. It takes the form of promised government patronnage jobs or local public goods such as establishing a new local university, financial support for local fishermen or cotton producers. Thus, a "public policy" message and a clientelist message stress the same issues such as education, infrastructures development, and health care. However, the former will stress the issue as part of a national programme or "projet de societé" while the latter will stress the issue as a specific project to transfer government resources to the region or the village. In addition, while national unity is a recurrent nationally-oriented theme, the recurrent clientelist theme is government

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patronage jobs.[12] Finally, it is worth stressing the fact that a typical platform is a mixture of clientelist and public policy messages. For the purpose of the experiment, the parties have kindly offered to disentangle their platform in the experimental districts into one which is purely clientelist and one which is purely public policy. Thus, just like in any regular political campaign, the parties involved in the experiment were running on their own platforms. The only difference being that they have generously adapted the campaigns that they intended to run in some villages to fit the objectives of the experiment.[13]

Following the design of the campaign messages, 10 teams of campaign workers were created and trained at the "Institut National de la Statistique et de l'Analyse Economique" (INSAE) in December 2000. Each team was composed of two members, one a party activist and the other a research assistant on the project with no party affiliation. The training consisted of the presentation of the goal of the project, and an exposition of the different types of the messages, as well as different types of campaign techniques. The training, the monitoring and supervising of the campaign workers was provided by a four-member team of supervisors and consultants based at the INSAE. Two of the consultants were statisticians, and the other two had graduate education in political science. They also served as intermediaries between the party leadership and the project.

Each district was assigned to a group of two activists, who ran clientelism in one experimental village and ideology in the other. For instance, the group in Kandi, represented the FARD-Alafia and ran clientelism in Kassakou and public policy in Keferi. Assignment of activists to villages took in consideration their ethnic origin and their ability to speak the local languages. The activists sent individual weekly reports

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[12] Clapham (1982) defines government patronage jobs as the "common curency" of clientelism.

[13] We could have differentiated the messages by opposing purely clientelist message to purely ethnic or religious message or urban biais. However, neither religion nor urban biais are salient political issues in Benin as evidenced by the actual parties's platforms. In addition, purely ethnic message would be too discinnected from the campaign strategies of the leading candidates (Kerekou and Soglo) and perceived as incitation to ethnic conflict.

of their campaign activities to the team of supervisors. The team of supervisors also visited the campaign workers three times between January and March to make sure that the two types of treatment were not confused.

Public policy and clientelist treatments

During each week for three months before the election, the campaign workers (one party activist and social scientist) contacted voters in their assigned villages. With the help of the local party leader, they first settled in the village, contacted the local administration, religious or traditional authorities, and other local political actors. They then contacted individuals known to be influential public figures at home to expose their campaign messages. They met groups of 10 to 50 voters at sporting and cultural events. They also organized public meetings of 50-100 people. On average, visits to households lasted half an hour and large public meetings about two hours.

A clientelist meeting took place in Tissierou on February 2, 2001. The meeting started with the following introduction by our local team: "we are the representatives of the candidate Saka Lafia, who is running for president in the March 3, 2001 election. As you know, Saka is the only Bariba candidate, actually the first since 1960. Saka is running because the north-east region, Borgou-Alibori, lags behind in nearly all indices of economic development: literacy, infrastructure, health care, etc. If elected, he will help promote the interests of the Borgou-Alibori region, by building new schools, hospitals, and roads and more importantly, hiring more Bariba people in the public administration."

The following day, the team went to Alafiarou and held the "public policy" meeting: "we are representative of Saka Lafia, our party the UDS stands for democracy and national solidarity. Saka is running the opposition candidate in the North. If elected, he will engage in a nation-wide reform of the education and health care system with emphasis on building new schools, new hospitals and vaccination campaigns. In conjunction with other opposition leaders, we will fight corruption and promote peace between all ethnic groups and all the regions of Benin." After the introductory state-

ment, a discussion period ensued during which detailed explanations were provided on the public policy or clientelist platforms of the parties.[14]

Thus, a clientelist message highlighted the candidate's ethnic affiliation, singled out the interests of his region of origin, and promised pork barrel projects and patronage jobs. Meanwhile, a public policy message emphasized the candidate's affiliation to the incumbent or opposition coalition, and outlined a socio-economic and political project for the country. In order to avoid tensions among the activists participating in the project we avoided attacks of the candidate's record or character as much as possible.

The local teams also provided informations on alternative campaigns ran in the experimental districts by non-experimental candidates. For instance, the reports reveals that the main alternative campaign in Perere was by Kerekou and was mostly nationally-oriented. The candidate ran a mostly clientelism platform Abomey-Bohicon.

IV. DATA COLLECTION AND EMPIRICAL RESULTS

After the elections a survey was conducted in all 10 experimental districts. In each district, a representative sample of voters were interviewed in the clientelist village, the public policy village and the non-experimental or control villages. The questionnaires are available upon request. The data was collected in three main components. Questions were asked about demographic characteristics such as gender, marital status, education, and ethnic affiliation. There were also questions about the degree of exposure to messages. Finally, and perhaps more importantly, data on

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[14]**The evidence from the weekly reports by the activists suggest that programmatic meetings last much longer than clientelist meetings. Some participants would criticize vote-buying and electoral corruption by other candidates while others would want details on the way in which the party's programme would translate into specific promises for their districts. In response, the local team of activists would stress the need of a coordinated national development programme. In clientelist meeting, participants would typically review past government projects implemented in their localities and make specific demands for the future.**

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voting behavior was collected. For instance, questions were asked about turnout, knowledge of the main candidates, the rank-order of the candidates, voting behavior in the 2001 and 1996 presidential elections.

Random or near-random assignment of villages to treatments makes the empirical strategy fairly straightforward. As I mentioned earlier, depending on the particular outcome, the average treatment effect could be obtained by comparing the mean of the outcome in each or a composite of two types of treatment groups to the mean in the control group. It also involves a comparison between the mean of the voting behavior in a clientelist village to the mean in a public policy village of each experimental district. This procedure is followed by a regression analysis that helps confirm and estimate additional treatment effects. The main dependent variable is vote in a specific district or in the country for a specific candidate. The main independent variables are ethnic affiliation, gender, age past voting behavior, and types of treatment.

The empirical analysis in this paper is based on the data collected in the 8 non-competitive districts. This is because, in those districts, the candidates involved in the experiment fully complied with the procedures of the experiment and "outside" or non-experimental influence on voters in those areas was very limited. In contrast, compliance was only partial in the 2 competitive districts and "outside" influence in those areas was significant and sometimes overwhelming.[15]

In presenting the results of the experiment, I provide tables which highlight the main findings on the impact of clientelist and public policy platforms. The tables help identify the treatment effects by comparing the means of the variable of interest across treatment groups and between a treatment group and the control group.

The estimation of the treatment effect is carried out in three steps. I first compute the difference between the mean of voting behavior in the clientelist treatment group and the mean in the public policy treatment group in the 2001 election. I then

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[15]This was the case for example in Come where the dominant campaign was ran by Kerekou, a non-experimental candidate in that district.

compute the difference across the treatment groups in the 1996 elections if the relevant candidate ran in that election. The treatment effect is simply, the difference between the first difference and the second difference.

Incumbency and "local" candidate effects

Table II shows the means of voting behavior within the treatment groups. The first column presents the candidates, the following three columns the means of voting behavior in the clientelist, and public policy villages respectively. There are two entrees (rows) for each candidate, one for the 2001 election and the other for the 1996 election. Sample sizes are indicated right below the means and standard errors are in parentheses. For instance, the mean in villages where Kerekou ran clientelist messages was 0.652, with standard error of 0.050 and a sample size of 92 for the 2001 election.

Table III presents the difference in means between public good villages and control villages for both the 2001 and the 1996 elections, as well as the difference-in-differences, henceforth DD (in bold). Again, standard errors are in parentheses. This is followed by the difference in means between clientelist villages and control villages and then between public policy and clientelist villages.

Insert Table II and Table III

The results indicate that for all four candidates, clientelist message is more effective than public policy message. The DD between the two types villages is the highest (-0.334) for Lafia, a local candidate, and for Kerekou, an incumbent candidate (-0.128), and the lowest for Soglo (-0.019). Remarkably, the DD between the public policy and mix message is positive for Soglo (0.168), which indicates the relative effectiveness of public policy message for the national opposition candidate. The reverse is true for Kerekou (-0.147) and for Lafia (-0.228).[16]

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[16]In interpreting the results, one has to keep in mind that the experiment involves voters who were over 70% likely to vote for the experimental candidate in their district. Thus, the fact that treatments did have an effect is in itself remarkable.

Table II also indicates that, excepted for Soglo, electoral support for incumbents is lower in the control villages than in the clientelist villages and higher than in public policy villages. This suggest that the more extensive is the clientelist content of the incumbent platform, the higher is its electoral support.

The local candidate Lafia has particularly strong clientelist appeals. District level breakdown indicates that in the Northern district of Perere (not shown) where he ran an experimental campaign, difference in means between clientelist treatment and public policy treatment was very large (0.64). The means of voting behavior in 1996 (not shown) indicate that most of the support for Lafia was drawn from Kerekou whose score was 0.22 in 2001 down from 0.63 in 1996. Similar results were obtained for Amoussou, the other local candidate in the Southern district of Dogbo where the difference in means between clientelist and public policy villages was about 0.30.

Gender Gap

Table IV presents voting behavior by gender for each candidate. Each table presents the mean for male and female voters 2001 and 1996 presidential elections, and a measure of gender gap in the clientelist village and the public policy village. Under public good treatment, the difference in means of voting behavior between female and male is positive for both Kerekou (0.244) and Soglo (0.062), the two national candidates. A similar but smaller gap exists across gender for those two candidates in the clientelist villages. This indicates that women are more likely to prefer national candidates, with the support being stronger in the public policy treatment group.

As for the local candidates, there is relatively small but consistent gap in voting behavior across gender. Male voters are more likely to prefer local candidates (particularly Lafia) regardless the treatment. However, their support is slightly stronger under clientelism.

District-level breakdown suggests that gender gap under public policy treatment was apparent in the two experimental districts where Soglo ran. In Abomey-Bohicon, the candidate gains a slightly lower electoral support with men in the public policy

village than in the clientelist village. In the other Ouidah-Pahou, women's support for Soglo remains strong in both experimental villages (0.97 in the clientelist village and 1.00 in the public policy village). However, from 1996 to 2001, men's support for the candidate has declined more sharply in the clientelist village than the public policy village.

The results in the both districts were a bit stronger than the data suggests. The weekly reports from the activists assigned to the district suggest that public policy platforms were embraced with a great deal of enthusiasm by female voters, many of them members of the local chapter of "Vidole," an advocacy group on issues of women's rights and children's welfare.[17] It has been reported that members of the group were active in mobilizing voters and instructed our activists to voice their needs and concerns to the candidate Soglo.

Similar results were obtained for the other national candidate Kerekou, in the experimental districts of Kandi, and Bembereke. In Kandi a switch from clientelism to public policy did not impact female voters as negatively as male voters. For instance, from 1996 to 2001, electoral support for Kerekou in Kandi's public policy village has increased by 0.12 among female voters but has decreased by 0.25 among men voters. In the clientelist village of the same district, Kerekou's support remains unchanged. The difference in means across treatment groups in the district was 0.25 for men and -0.06 for women. The result indicates that national candidates have comparative advantage over local candidates on public policy, especially among female voters.[18]

Regression Analysis

I now provide a more comprehensive analysis of the treatment effect with regression analysis. The analysis will help provide an estimation of the treatment effect by

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[17]Vidole means "children are a good investment" in Fongbe, the local language.

[18]This could be because national candidates are more easily identifiable with national issues broad public policy platforms than local candidates.

controlling for past voting history and other variables. I first present a number of district level results followed by the nationwide regression results.

For the basic specification I assume that the variable measuring the expected utility of voter i when he or she votes for candidate k can be can be modelled as

$$y_{i,k}^* = \beta X_i + \gamma(PAST_i) + \delta(TREAT_k) + \varepsilon_i$$

The variable $y_{i,k}^*$ is not observable. However, one observes that

$$y_{i,k} = 1 \text{ if } y_{i,k}^* > 0 \text{ and } y_{i,k} = 0 \text{ if } y_{i,k}^* \leq 0,$$

where $y_{i,k} = 1$ means that i voted for k, and 0 otherwise. For instance the variable Soglo takes the value 1 if the respondent voted for Soglo and 0 otherwise. X_i is a vector of individual traits such as gender, age and ethnic affiliation.[19] Finally, AGE and SEX denote the age and the gender of the voter.

The crucial independent variables are past voting behavior and treatment (clientelist, public policy). To control for past voting behavior, I include PAST, which is a dichotomous independent variable taking the value 1 if the individual voted for the same candidate in the 1996 presidential elections, 0 otherwise. There are three variables of this type, one for each of the candidates that ran in the 1996 election, i.e. Amoussou, Kerekou and Soglo.

To evaluate the treatment effect, I use the variables CLIENTELIST and PUBLIC POLICY. The first variable takes the value 1 if the voter was in a clientelist treatment group of the candidate running an experimental campaign in the village, and 0 if he is in the control group. Similarly, public policy takes the value of 1 if the voter is in the public policy treatment group and 0, if (s)he was in the control group. There are four variables of this type, one for each candidate. In order to formally test the existence of a gender, I introduce the variable SEX*CLIENTELIST and SEX*PUBLIC. I wanted to assess the difference in voting behavior by gender given that both male and female voters have been exposed to either a clientelist message or public policy message.

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[19]Ethnicity is not included because the variable does not exhibit enough variation within districts.

Table IV provides the probit analysis of the vote for the candidates in the experimental districts. It indicates that there is positive and significant "public policy" treatment effect for candidate Soglo and a negative and significant public policy treatment effect for Kerekou the other national candidate and for Lafia, the local candidate. Clientelist treatment is positive and significant for both local candidates Amoussou and Lafia. Interestingly, the point estimates for the other clientelist is insignificant for both national candidates.

Insert Table IV here

The results might indicate that national candidate has a comparative advantage over the local candidate on public policy platforms.

The political gender gap that was apparent in the bivariate analysis by DD method (Table III) is confirmed in the regression analysis. First, gender is negative and significant for both Kerekou and Soglo, which means that female voters tend to prefer national candidates. The coefficient is positive for the local candidate Lafia and insignificant for the other local candidate Amoussou. Given that local candidates tend to be more associated with clientelism than national candidates are, the results indicate that a stronger inclination towards public policy by women than men. The cat that the coefficient for the interactive term is positive and significant for Kerekou partly indicates a stronger male inclination towards clientelism. Thus, female voters are more likely to vote for national opposition candidate as he becomes more programmatic.[20] It is worth noting that the political gender gap is present in both Christian South and Muslim North, especially in districts where women advocacy groups have been and remain active.

Finally, except perhaps for Soglo, there is no evidence of a generation gap. The age variable was insignificant in all regressions for all three other candidates. The result

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[20]Probits were also ran with the sex*public variable. The regression could not be run for Soglo because there not enough variation in vote in his public policy treatment group. But the coefficient was negative and significant up 80% for Kerekou. This is another indication of the stronger inclination of female towards public good and national candidates.

is a bit surprising given the prominent role that student movements in Benin played in the downfall of the authoritarian government in the 1980s and at the early stages of democratization from 1990 to 1993 (Bratton and Van de Walle [1994]). The result might also be an indication of a decline in youth militantism and political activism which was the trade-mark of Benin since its independence in 1960. The fact that older voters tend to prefer Soglo

The fact that past electoral behavior is a good predictor of current voting behavior is not surprising given the strength of ethnic affiliation and voting. In almost all districts, the favorite candidate retained much of its core electorate. The only major exception was in Perere where the Kerekou electorate melted as a result of Lafia's entry in the race. The post-election survey data suggests that Lafia's supporters were not strategic: nearly all Lafia's voters thought everybody else was voting for the opposing candidate!

As I mentioned earlier, while voters in the experimental districts were contacted personally, voters in the control villages were contacted primarily through radio or newspapers ads by the candidates. The positive and significant impact of the treatment variables in all the regressions indicates that canvassing combined with group meetings strengthens political support for the candidate involved in the experiment. The result can be seen as a version of the Gerber and Green (2000) result of the positive impact of canvassing on turnout.

Finally, the fact that the comparative advantage of incumbent candidates remains robust after controlling for past electoral behavior could be either an indication that these candidates were perceived as incompetent in terms of delivery of public goods or that they were more credible in distributing patronage jobs and other private transfers. The result provides evidence for retrospective voting, which indicates that voters are strategic and take into consideration past voting outcomes when interpreting politician campaign messages.

The strong impact of clientelism by local candidates indicates that ethnic identity does not entirely determine voting behavior. Given ethnic affiliation, types of

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platforms and method of voter mobilization matter. For instance, as I mentioned earlier, in his native district of Perere, political support for Lafia dropped significantly when he switched from clientelism to public policy. The result indicates that a large proportion of the electorate has a relatively strong preference for redistribution and that such preference may vary greatly depending on geographic location or the candidate's credibility, which in turn may depend on his seniority, or whether or not he is in government.[21]

Relation to the Literature

The theoretical foundation of the present paper follows analyses of distributive politics by Lindbeck and Weibull (1987) and Dixit and Londegran (1996). However their models do not differentiate between incumbent and challenger, between national and local candidates. They also do not include the possibility of public goods provision by candidates or the potential comparative advantage that candidates might have over redistribution or public policy promises. The empirical results discussed here suggest that more realistic models should explicitly include incumbency and the scope of the competing candidates.

Women's inclination towards public policy echoes a recent study by Chattopadyay and Duflo (2001).[22] The authors examine the policy implications of an affirmative action type reform in India in which seats are set aside to women in a number of

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[21]**In a recent study of electoral clientelism in Benin, Banegas (2002) finds that politicians consistently engage in vote-buying and that voters come to expect these largesses and actually use them to assess their likely post-election generosity. One might thus conclude that the weaker impact of the nationally-oriented message was a reflection that voters viewed such message as suspicious and unusual. However, there is evidence suggesting that political campaigns of all the major candidates has always involved a great deal of national themes such as corruption eradication, women's rights, education reform. Thus an experimental platform stressing those themes should not have been perceived as unusual and we find no evidence from the field suggesting otherwise.**

[22]As I mentionned earlier, public goods treatments were found to have a greater impact on women than men in the districts of Perrere, and to some extent in Dogbo-Toviklin and Abomey-Bohicon.

randomly chosen local governments. Chattopadyay and Duflo (2001) compared the types of policies implemented in reserved and unreserved village councils and found a significant gender gap in types of policies implemented. In particular, they found that while women tend to invest in infrastructure directly relevant to the needs of rural women such as water, fuel and road composition, men tend to invest more in education. The context of the present study is not a local government but national government and the strategies of the politicians involved in the experiment are not types of public goods but instead clientelist goods versus public goods. Moreover, in the present study, women are not in the position of decision-makers. They are instead voters.

Lemarchand (1972) argues that ethnicity should be studied independently from clientelism because "whereas clientelism describes a personalized relationship, ethnicity is a group phenomenon, therefore there is no compelling reason to expect concomitant variations between ethnic solidarities and client-patron solidarities." Thus ethnic solidarities can conflict with or reinforce patron-client solidarities. The distinction between the two types of relationships is illustrated by the significant intraethnic variance in preferences for clientelist goods. In addition, the positive response to clientelist appeals by local or ethnic candidates may indicate that ethnic solidarities can help enforce clientelist bargains.

The methodology of this study is part of an emergent literature on field experimental research in social sciences. An experiment is a purposeful intervention to alter a social environment in a specific way, to compare the outcomes in the experimental group(s) and the control groups and to derive the impact of a variable of interest. Fisher (1935) presents a general treatise on experiments with random assignments. It is argued that when subjects are drawn randomly and formed into treatment groups, and when the subjects are assigned to the same treatment, then the distribution of outcomes should be the same as in an experiment in which the whole population received the treatment.

Randomized field experiments in political science have focused on studying the

way in which various techniques of voter mobilization (mail, canvass, telephone) affects voter turnout.[23] Gerber and Green (2000) argued that these studies were severely limited by small sample sizes and by flawed econometric techniques which did not account for the fact that some subjects assigned to treatments were not contacted. Their study of voter mobilization in New Haven overcame these limitations by increasing the number of subjects involved in the experiment from about 3,969 in the Gosnell experiment to 30,000 and by using the method of instrumental variables to correct for potential bias in the estimation of the treatment effect that might result from the fact that subjects who were easier to contact might have a higher propensity to vote.

The present study differs from previous experimental studies in a number of ways. First, my dependent variable is voting behavior, not voter turnout, and my treatment is political platforms, not voters' mobilization techniques. Second, the data generated by the experiment (political attributes of the parties, personal attributes of voters) helps identify treatment effects associated with various type of candidates (incumbent and opposition, local and national). The data also helps identify treatment effect in a variety of settings, e.g. the Northern districts or Southern districts, or across demographic groups, e.g. male versus female.

V. CONCLUSION

A randomized field experiment has been designed and implemented in the context of the first round of the 2001 presidential elections in Benin in order to provide a nuanced and parsimonious investigation of the impact of clientelism on voting behavior. The empirical results show clientelism works for all types of candidates but particularly well for local and incumbent candidates. The results indicate that women voters have stronger preference for public goods than men, and that younger and older

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[23]Gosnell (1927), Elderveld (1956), Adams and Smith (1980), Miller, Bositis and Baer (1981) and more recently Green and Gerber (2000).

voters have similar policy preferences. I argue that credibility of clientelist appeals and accessibility of clientelist goods greatly influence voting behavior. For instance, incumbent candidates have the means to make clientelist appeals more credible by delivering a part of clientelist goods before the election. Opposition candidates can take advantage of the revealed incompetence of the incumbent in providing the public goods during the previous electoral cycle to make its public goods-type promises more appealing and more credible. Finally, because most clientelist types policies disproportionately benefit men than women or because rural women might value children's welfare more highly than men do, women are more likely to have an intrinsic preference for public goods than men.

The gender gap results in the opposition-controlled districts of Abomey-Bohicon and Ouidah-Ahozon could have been more significant if we had selected weaker opposition strongholds, that is, districts with a larger number of marginal opposition supporters. However, this would have increased the risk of the experiment affecting the election outcomes and made the collaboration of the parties less likely. Thus, further experiments are needed to check the robustness of the results. In addition, since the current project took place mostly in rural districts and in the context of presidential elections, it would be useful to extend the experiment to include more urban districts, other types of elections (legislative and municipal), and perhaps other countries.

Despite the limitations of the experiment, the results discussed here indicate quite clearly and rigorously that voting behavior is far from being entirely determined by ethnic affiliation, and more importantly, that clientelist appeals even if they are strong in many cases, are not universal even among poor voters and at low levels of economic development.

REFERENCES

Adams, William C. and Dennis Smith. 1980. "Effects of Telephone Canvassing on Turnout and Preferences: a Field Experiment. *Public Opinion Quarterly* 44

(Autumn): 389-95

Barnegas, Richard. 1998. "Bouffer l'Argent, Politique du Ventre, Democratie et Clientelisme au Benin" in Jean-Louis Briquet et Frederic Sawicki (eds) *Clientelisme Politique dans les Societes Contemporaines*, Presses Universitaires de France.

Bates, Robert. 1982. *Markets and States in Tropical Africa*, Berkeley: University of California Press

Bayart, Jean-Francois. 1989. *L'Etat en Afrique: la Politique du Ventre.* Paris: Fayard.

Boulaga, Eboussi. 1993. *Les Conferences en Afrique Noire.* Paris: Editions Karthala.

Bratton Michael and Nicolas Van de Walle. 1994. "Neo-patrimonial Regimes and Political Transitions in Africa". *World Politics* v 46: 453-89.

Brusco, Valeria, Marcelo Nazareno and Susan Stokes. 2002. Clientelism and Democracy: Evidence from Argentina. Paper presented at the Yale Conference on Political Parties and Legislative Organizations in Parliamentary Democracies,

Cain Bruce, Ferejohn, John and Fiorina Morris. 1997. *The personal Vote: Constituency Service and Electoral Independence.* Cambridge, MA: Harvard University Press.

Chattopadyay, Raghabendra and Esther Duflo. 2001. Women's Leadership and Policy Decisions: Evidence from a National Randomized Experiment in India. Working Paper, MIT

Clapham, Christopher. 1982. *Patronnage and Political Power*, New York: St.-Martin Press.

Cox, Gary and Frances Rosenbluth. 1995. The Structural determinants of electoral cohesiveness: England, Japan and the United States, in Peter Cowhey and

Matthew McCubbins (eds), *Structure and Policy in United States*, Cambridge, U.K. Cambridge University Press

Degboe Kuassi .1995. *Elections et Realites Sociologiques du Benin.* Cotonou: Entermonde Editions

Dixit Avinash and John Londegran. 1996. "The Determinants of Success of Special Interest in Redistributive Politics." *Journal of Politics*, Vol. 58, pp. 1132-1155

Elderveld, Samuel J. 1956. "Experimental Propaganda Techniques and Voting Behavior." *American Political Science Review* 50 (March): 154-65

Eisenstadt, Samuel and Luis Roniger. 1984. *Patrons Clients and Friends: Interpersonal Relations and the Structures of Trust in Society.* Cambridge, MA: Cambridge University Press.

Fisher, Ronald. 1935. *The Design of Experiments.* London: Oliver and Boyd

Gerber Alan and Donald Green. 2000. "The Effects of Canvassing, Telephone Calls, and Direct mail on Voter Turnout: A Field Experiment." *American Political Science Review*, Vol. 94, No. 3, pp. 653-662

Grosnell, Harold. 1927. *Getting-Out-the Vote: an Experiment in the Stimulation of Voting.* Chicago: University of Chicago Press.

Hellbrunn, John R. 1993. "Social Origins of National Conferences in Benin and Togo". *Journal of Modern African Studies* v 31: 277-99.

Huntington, Samuel. 1968. *Political Order in Changing Societies.* New Haven, CT Yale University Press

Kitschelt, Herbert. 2000. "Linkages Between Citizens and Politicians in Democratic Polities." *Comparative Political Studies*, Vol. 33, No 6/7.(August-September)

Kugler, Maurice and Howard Rosenthal. 2000. Checks and Balances: An Assessment of the Institutional Separation of Powers in Colombia. Working Paper, 09, Department of Economics and Econometrics. University of Southampton

Lemarchand, Rene. 1972. "Political Clientelism and Ethnicity in Tropical Africa: Competing Solidarities in Nation-Building." *American Political Science Review*, Vol 66, Issue 1, pp. 68-90

Lindbeck, Assar and Jorgen Weibull. 1987. Balanced Budget Distribution as Outcome of Political Competition. *Public Choice*, Vol 52, LII, 272-297.

Linz Juan and Arturo Valenzuela (eds). 1994. *The Failiure of Presidential Democracy in Comparative Perspective*. Baltimore: University of John Hopkins Press

Manski, Charles. 1994. "Learning about Treatment Effects from Experiments with Random Assignments of Treatments." *Journal of Human Resources*, Vol. 59, 711-733

Miller, Roy E., David Bositis and Denise Baer. 1981. "Stimulating Voter Turnout in a Primary with a Preccint Committeeman." *International Political Science Review* 2 (4): 445-60.

Nwajiaku, Kathryn. 1994. "The National Conferences in Benin and Togo Revisited." *Journal of Modern African Studies* v 32: 429-47.

Robinson, James and Thierry Verdier. 2001. Political Economy of Clientelism. Working Paper. University of Berkeley.

Rose-Ackerman, Susan. 1999. *Corruption and Government.* Cambridge, UK: Cambridge University Press.

Scott, C. James. 1972. "Patron-Client Politics and Political Change in Southeast Asia." *American Political Science Review.* 66, 91-113.

Table I: Description of the experimental districts

District	Exp. candidate	Exp. villages	Treatment	Ethnic dom.	Reg. voters
Kandi	Kerekou	Kassakou	clientelism	Bariba (92%)	1133
		Keferi	public policy	Bariba (90%)	1109
Nikki	Kerekou	Ouenou	clientelism	Bariba (89%	462
		Kpawolou	public policy	Bariba (88%)	1090
Bembereke	Saka Lafia	Bembereke Est	clientelism	Bariba (86%)	999
		Wannarou	public policy	Bariba (88%)	931
Perere	Saka Lafia	Tisserou	clientelism	Bariba (93%)	657
		Alafiarou	public policy	Bariba (94%)	442
Abomey-Bohicon	Soglo	Agnangnan	clientelism	Fon (99%)	1172
		Gnidjazoun	public policy	Fon (99%)	1199
Ouidah-Pahou	Soglo	Acadjame	clientelism	Fon (99%)	321
		Ahozon	public policy	Fon (99%)	701
Aplahoue	Amoussou	Boloume	clientelism	Adja (99%)	492
		Avetuime	public policy	Adja (96%)	511
Dogbo-Toviklin	Amoussou	Dékandji	clientelism	Adja (99%)	1397
		Avedjin	public policy	Adja (99%)	736
Parakou	Ker./Lafia	Guema	competition	Bariba (80%)	2291
		Thiam	competition	Bariba (82%)	462
Come	Am./Soglo	Kande	competition	Adja (90%)	1197
		Tokan	competition	Adja (95%)	437

Table II:
Difference in means across public policy and clientelist messages for each candidate

Candidate	Public	Clientelism	Public-Client.
Kerekou	0.652 (0.050) 92	0.981 (0.014) 104	-0.329 (0.049)
Ker. 96	0.768 (0.047) 82	0.969 (0.017) 98	-0.201 (0.047)
			-0.128
Amoussou	0.727 (0.043) 110	0.818 (0.037) 110	-0.091 (0.056)
Am. 96	0.626 (0.049) 99	0.695 (0.051) 82	-0.069 (0.071)
			-0.022
Soglo	0.954 (0.020) 109	0.958 (0.019) 118	-0.003 (0.027)
Sogl. 96	0.978 (0.015) 93	0.963 (0.018) 108	0.016 (0.024)
			-0.019
Lafia	0.060 (0.022) 116	0.395 (0.046) 114	-0.334 (0.051)
			-0.334

Table III:
Difference in means between treatment and control villages for each candidate

Candidate	Control	Public-Control	Control-Client.
Kerekou	0.963 (0.021) 82	-0.311 (0.056)	-0.017 (0.024)
Ker. 96	0.932 (0.029) 74	-0.164 (0.057)	-0.037 (0.032)
		-0.147	**0.020**
Amoussou	0.741 (0.042) 112	-0.014 (0.060)	-0.077 (0.056)
Am. 96	0.658 (0.055) 76	-0.032 (0.074)	-0.037 (0.075)
		0.018	**-0.040**
Soglo	0.741 (0.042) 112	0.213 (0.047)	-0.217 (0.045)
Sogl. 96	0.993 (0.026) 90	0.045 (0.030)	-0.030 (0.031)
		0.168	**-0.187**
Lafia	0.288 (0.042) 118	-0.228 (0.048)	-0.107 (0.062)
		-0.228	**-0.107**

Table IV:
Difference in means across types of message for each gender

	Females			Males		
	Public	Client.	Public-Client.	Public	Client.	Public-Client.
Kerekou	0.889 (0.053) 36	0.970 (0.030) 33	-0.081 (0.063)	0.500 (0.067) 56	0.986 (0.014) 71	-0.486 (0.062)
Ker. 96	0.853 (0.062) 34	0.926 (0.051) 27	-0.073 (0.083)	0.708 (0.066) 48	0.986 (0.014) 71	-0.278 (0.057)
			-0.008			**-0.208**
Amoussou	0.658 (0.078) 38	0.909 (0.051) 33	-0.251 (0.096)	0.764 (0.050) 72	0.779 (0.048) 77	-0.015 (0.069)
Am. 96	0.588 (0.086) 34	0.800 (0.082) 25	-0.212 (0.122)	0.646 (0.060) 65	0.649 (0.064) 57	-0.003 (0.087)
			-0.039			**-0.012**
Soglo	1.000 (0.000) 69	0.983 (0.017) 58	0.017 (0.016)	0.875 (0.053) 40	0.933 (0.032) 60	-0.058 (0.059)
Sog. 96	1.000 (0.000) 61	0.963 (0.026) 54	0.037 (0.024)	0.938 (0.043) 32	0.963 (0.026) 54	-0.025 (0.047)
			-0.020			**-0.033**
Lafia	0.033 (0.033) 30	0.348 (0.102) 23	-0.314 (0.097)	0.070 (0.028) 86	0.407 (0.052) 91	-0.337 (0.060)
			-0.314			**-0.337**

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TableV:
Probit analysis of vote for candidates in experimental villages.

	Kerekou	Soglo	Amoussou	Lafia
Constant	1.598**	-1.678**	-0.618	-1.059**
	(0.761)	(0.685)	(0.414)	(0.387)
Sex	-1.349***	-1.010**	0.048	0.657**
	(0.405)	(0.354)	(0.274)	(0.319)
Age	-0.002	0.019*	-0.001	-0.002
	(0.010)	(0.010)	(0.009)	(0.006)
Past	1.510***	2.606***	1.991***	-
	(0.343)	(0.516)	(0.223)	-
Public policy	-1.228**	0.936**	0.121	-0.943***
	(0.385)	(0.364)	(0.264)	(0.228)
Clientelist	-1.040	1.137	1.058*	0.721*
	(0.689)	(0.720)	(0.582)	(0.410)
Sex*Client.	1.569**	0.087	-0.477	-0.517
	(0.735)	(0.806)	(0.617)	(0.438)
N	229	281	243	341
log-L	-51.501	-52.768	-85.311	-169.554
% correct pred.	0.908	0.925	0.844	0.751

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