

**Corruption and Political Participation in Africa:
Evidence from Survey and Experimental Research**

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Introduction

In studies of individual behavior, scholars have consistently found socioeconomic factors – particularly education and income – to be robust predictors of political participation in advanced democracies (Brady, Verba and Schlozmann 1995, Rosenstone and Hansen 1993, Verba, Schlozman and Brady 1995, Wolfinger and Rosenstone 1980). Further, macro-level studies find that participation is higher the more developed the country and scholars argue that this is due to a relationship between economic development and levels of education and income (Powell 1982, Blais and Dobrzynska 1998). In Africa, however, most adults have little or no education, economic conditions are consistently poor (Easterly and Levine 1997), and, not surprisingly, education and income are not consistent predictors of participation (Bratton, Mattes and Gyimah-Boadi 2005). Yet, participation is high in Africa's emerging democracies – among six of Africa's emerging democracies (Benin, Botswana, Ghana, Namibia, Senegal and South Africa), the average level of interest in political affairs is 70% and average voter turnout is 77%.¹ Clearly, Africans are motivated to participate, but why?

Experts have long cited corruption as one of the most important factors affecting political participation in Africa (Lemarchand 1972, also Mbaku 2007). Indeed, as shown by the Transparency International Index, corruption in Africa is among the worst in the world.² Many scholars argue that Africans are embedded in a network of relationships in which corrupt patrons bribe citizens to participate, and this network, often referred to as clientelism, provides the link between corruption and participation (Fatton 1986, Lemarchand and Legg 1972). On the other hand, Bratton and van de Walle have argued that Africans participate in reaction to and against perceived corruption (1992). Does corruption affect participation in Africa, and if so, does it do

¹ Data are from the Round 3 Afrobarometer survey, available online at www.afrobarometer.org.

² For comparisons of corruption in countries around the world, see the Corruption Perceptions Index, published annually by Transparency International, available online at www.transparency.org.

so because clientelist networks compel Africans to participate? Or, are Africans motivated to participate because they dislike corruption and want to punish or remove corrupt leaders? The first explanation for a link between corruption and participation casts Africans in the role of subjects. If Africans participate solely because they are paid to do so, participation has little meaning. However, if controlling for the effects of clientelism, Africans respond to perceived corruption by turning out to vote and protesting, then they are acting as citizens in spite of their lack of skills and resources and participation is more meaningful.

A number of recent studies have found that not only do citizens of both advanced and emerging democracies disapprove of corrupt leaders, but the perception that leaders are corrupt decreases overall confidence in government (Anderson and Tverdova 2003, Tavits 2007, Bowler and Karp 2004, Redlawsk and McCann 2005). In an analysis of sixteen established and new democracies (mostly from Europe but including former British colonies), Anderson and Tverdova (2003) find that citizens in more corrupt countries systematically evaluate the effectiveness of democracy in their respective country as being worse than citizens in less corrupt countries. Given these results, Anderson and Tverdova conclude that in addition to socioeconomic factors, citizens' perceptions of corruption significantly affect their political attitudes. Similarly, in their analysis of political attitudes in Argentina, Manzetti and Wilson (2006) find that perceptions of corruption affect citizens' evaluations of their government; however, once they include the interaction of perceptions of corruption and economic conditions, the direct effect of these two variables disappears. Interestingly, they find that those who are economically disadvantaged and perceive a high level of governmental corruption are less likely to have confidence in their government. While these studies advance our understanding of the

relationship between corruption and political attitudes, none examines the impact of perceptions of corruption on political participation.

Our primary objective is to study how perceptions of corruption affect political participation in Africa, where corruption is widespread and has a particularly deleterious effect on quality of life. In addition, we build on Manzetti and Wilson (2006) by examining how, if at all, the interaction of corruption and economic conditions affects political participation. We do not limit our analysis to one kind of participation; instead, we study two types of participation that have been historically important in Africa, voting and protest. For obvious reasons, scholars have studied voter turnout: not only is the right to vote the most important political right to result from democratic transition, it is the least costly to exercise and is the most comparable across democracies generally. However, a number of experts highlight protest as a historically relevant activity in Africa. As a costly but meaningful form of political participation, protests were an important part of the wave of democratization that occurred in Africa in the early 1990s (Bratton and van de Walle 1997), and protest continues to be a key form of participation when democratic rights are threatened (Bratton and van de Walle 1992, 442; Bratton, Mattes, and Gyimah-Boadi 2005, Chapter 12). We therefore analyze the predictors of both voting and protest.

To untangle the effects of corruption and other factors – including economic conditions and social characteristics – on voting and protest in an African context, we use two methodologies, a structured experiment and survey analysis. In their recent book, Bratton, Mattes and Gyimah-Boadi use the Afrobarometer surveys to examine exhaustively the question of how Africans participate in both democracies and non-democracies (2005). However, survey data alone cannot tell us *why* individuals choose to participate. In the field of American politics, researchers often rely on experiments to study why individuals participate (e.g. Cover and

Brumberg 1982, Gerber and Green 2000). Increasingly, comparative political behavioralists are adopting experimental techniques (e.g. Brader and Tucker 2006, Wantchekon 2003, Henrich et al. 2001). Experiments represent an internally valid, innovative and appropriate method to study participation in a developing country, where standard theoretical models do not work and the question of why people participate is poorly understood (see McDermott 2002, 334).

We implement our experiment on a sample of university students in Senegal, a country classified by Freedom House as ‘free and fair’ since 2001.³ Given that our experimental design required us to select one country as the site for the experiment, there were several reasons for selecting Senegal. First, Senegal has both high levels of corruption and a history of clientelism. Second, Senegal is a country in which ethnicity plays little or no role in politics (Fatton 1986, van de Walle 2007).⁴ Third, Senegal has enjoyed a long period of peace. Fourth, Senegal’s low level of economic development is typical of Africa in general. Finally, Senegal has experienced two decades in which political rights have been observed – therefore, it provides a context in which citizens are “at risk” of participation.

Along with our experimental work, we employ data from Round 3 of the Afrobarometer survey of Senegal. Using the Afrobarometer survey data we test the external validity of our experimental findings. We also use the survey to explore further the relationship between corruption and political behavior, controlling for the possible impact of clientelism. In the following section, we review literature on corruption and political participation in Africa.

Corruption and Participation in Africa

³ We used Freedom in the World Country Ratings, 1972 – 2006, published by Freedom House and available online at www.freedomhouse.org.

⁴ Senegal is relatively homogenous. About 50 percent of citizens are Wolof with a handful of smaller ethnicities. 90 percent of citizens speak one or both of the national languages (French and Wolof). 95 percent of the population is Muslim.

Corruption may affect African politics in myriad ways, but we address two forms of corruption that are particularly relevant to participation: (1) the use of political office for personal gain, and (2) the exchange of private goods for political support, i.e. clientelism.

Clientelism

Prior to democratization, experts on Africa universally described the relationships that structured African politics in terms of clientelism. Classic studies (Lemarchand and Legg 1972, Lemarchand 1972) describe an Africa in which powerful patrons controlled the political system, reaped the spoils of office and maintained their position through the support of clients who may or may not have benefited from the relationship (van de Walle 2003, 2007). The extent to which democracy has changed the system of patronage established during the post-independence authoritarian period is an open question. Some scholars argue that clientelism persists today in roughly the same form as it has since the end of colonialism (Chabal and Daloz 1999, Szeftel 2000, Wantchekon 2003). According to these scholars, politicians gain and maintain their positions by dispensing private goods to their supporters. Others challenge this view. Van de Walle (2007) questions the ability of patrons to police the political behavior of their clients once democracy introduces the secret ballot. Further, he argues that patronage relationships are constricted in Africa, because resources are scarce and patronage benefits only a few. According to Bratton, Mattes, and Gyimah-Boadi, if patronage benefits only a few Africans, then its net effect is “to curtail, not expand, opportunities for participation” (2005, 303). Their analyses of Afrobarometer data show that patronage *reduces* the likelihood that an individual will vote, implying that patronage relationships are breaking down (303-4).

Corruption

By corruption, we refer to the use of office for personal gain, and we focus on corruption at the level of national government. In their analysis of democratization in Africa, Bratton and van de Walle document the impact of perceptions of national level corruption on protest activity in the 1990s. They argue that anti-corruption messages were more effective at mobilizing mass demonstrations during the third wave of democratization than were appeals to multiparty democracy (1997). More recently, cross-national survey data provides convincing evidence that in many African countries, citizens want clean and accountable governments and perceptions of corruption prompt citizens to vote against corrupt leaders (Bratton et al 2005, 308). Thus, there is evidence that in Africa, perceptions of corruption, separable from the effects of patronage, have important effects on participation, increasing both voting and protest.

Each of these forms of corruption (clientelism and use of national office for personal gain) can be traced to pre-democratic systems of patronage. However, in Africa's new democracies, the right to secret ballot offers citizens the possibility of challenging traditional relationships. We expect that corruption and clientelism have separate and differentiable effects on participation, and we designed our mixed method research strategy accordingly. As we discuss below, in both the experimental and survey analyses, we find that perceptions of corruption significantly and positively affect both voting and protest, although there are interesting differences in the magnitude and conditions of these effects, which we explore primarily in our analysis of the survey data.

Theory

In this paper, we focus primarily on the effect that perceptions of corruption have on political participation. We know of no other empirical work that addresses this relationship. Given studies showing that perceptions of corruption affect citizen attitudes, we propose to

examine several possible relationships between perceptions of corruption and behavior. Citizens who treat corruption as reflecting governmental incompetence and illegitimacy (Seligson 2002, Anderson and Tverdova 2003) may be motivated to remove incumbents, and hence may be more likely to participate (Gamson 1968). But citizens who interpret corruption as an indication that they cannot trust their leaders may be less likely to participate because corruption signals to them that the government will not respond to their concerns.

Although work by experts on Africa finds weak and inconsistent results for the effects of economic conditions on political participation, for the purposes of deriving a testable proposition, we assume that the standard socioeconomic model holds. Thus, we expect to find that an improvement in economic conditions makes individuals more likely to participate.

Given work by Manzetti and Wilson, we also test for a possible interactive effect of economic conditions and perceptions of corruption. Although the effect of such an interaction on participation has not yet been studied, following the logic presented by Manzetti and Wilson, we expect that those who experience severe economic hardship and perceive the government to be highly corrupt will be the most likely to participate.

Our experiment was designed to test these basic propositions. With the Round 3 Afrobarometer data, we validate externally the experimental findings and test several additional relationships, the most important of which involve the effect of clientelism on participation. In addition to controlling directly for the effects of clientelism, we also examine the effects of interactions of partisanship with both clientelism and perceptions of corruption. We expect that supporters of the governing party are less affected by perceptions that governing officials (both elected and non-elected) are corrupt, and hence the effect of perceptions of corruption on their participation will be less than its effect on supporters of the opposition and on non-partisans.

Drawing on experts' understanding of how patronage works in Africa's emerging democracies, we also expect that supporters of the president will be more likely to vote if they are embedded in clientelist networks, i.e., they have been offered a bribe to vote.

In the next section, we discuss the design and implementation of our experiment. In the final section of the paper, we report the results of regression analyses of the effects of corruption, clientelism, and socioeconomic factors on voting and protest in Senegal. As will be seen, the relationships we uncover in the experiment prove to be significant in our analysis of the Afrobarometer survey data as well. The experiment shows that citizens who identify their leaders as corrupt are more likely to participate than those who do not, and these results are most pronounced and important with regard to protest. These patterns are underscored and amplified in the results of our survey analysis.

Participation in Senegal: Experimental Results

We constructed our corruption treatment to elicit a change in perceptions of governmental corruption. Subjects in the corruption treatment were told that the Ministry of Education was facing allegations of having paid wages to family members who were not employed by the Ministry. Nepotism of this sort is a form of national-level corruption commonly found in African countries. The experimental setting removes subjects from their social context by randomly assigning them to one of four treatments. So long as random assignment is achieved, any possible impact of clientelism (or any other factor) is evenly distributed across the treatment groups; therefore, any observed effect of perceptions of corruption on behavior is due to the treatment.

We study how both positive and negative perceptions of economic conditions affect individual decisions to protest and vote. Traditionally, *income* has been the preferred measure of personal economic conditions (Kinder 1981, Pacek and Radcliff 1995, Radcliff 1992). However,

in Senegal, where poverty and unemployment persists, manipulating income is not likely to elicit feelings of personal relevance. The importance of crafting experimental treatments that are relevant to the sample is exemplified in the work of Darke and Chaiken (2005), who use school fees to study the effects of personal relevance on attitudes and self-interest. They hypothesize that “...(costs) are substantial when personal impact is immediate and should generally lead to more negative attitudes toward the issue” and find that “participants who would themselves pay the tuition increase rated the issue as more important and viewed themselves as more involved than participants who would not have to pay this cost” (871).

Based on these findings and others (Petty and Cacioppo, 1984), we reason that school scholarships are a valid and reliable measure of personal economic experience for university students. For the most part, students receive scholarships or financial aid from the government in order to attend the University. Among our student sample, 43% of students receive full scholarships (merit-based); 21% receive partial scholarships; 2% receive partial scholarships with financial aid; 19% finance their education with financial aid; and 19% pay their own tuition (for general statistics on our student and survey samples, see Table 1). Therefore, our “economic conditions” treatment is an increase or decrease in student scholarships, where an increase in scholarships of 10% is intended to elicit positive perceptions of economic conditions, while a decrease of 10% elicits negative perceptions.⁵

Procedure

208 students from the University of Dakar, Cheikh Anta Diop (UCAD) participated in the experiment. We recruited the students by posting flyers in common areas around campus. The flyers described the study as a survey about students’ perceptions of university conditions (the

⁵ Based on interviews with University officials, we determined a 10% increase or decrease in scholarships to be a realistic amount for the economic conditions treatment.

cover story). Upon entering the laboratory, the cover story was repeated to the subjects to minimize characteristic demands, such as subject hypothesis guessing. Next, each participant was given a survey packet, containing a pretest questionnaire, a newspaper article corresponding to the assigned treatment, and a posttest questionnaire (these items are available upon request). Students were randomly assigned to one of the four treatments, consisting of a newspaper article containing combinations of our economic and corruption treatments: (1) good economic conditions, no corruption, (2) bad economic conditions, no corruption, (3) good economic conditions, corruption, and (4) bad economic conditions, corruption (see Appendix). There were 52 participants in each treatment. After subjects completed the packet, they were compensated⁶ and debriefed⁷.

Based on questions from the pretest, we ascertain the demographic and socio-economic characteristics of our sample. The experimental sample included 78% males and 22% females⁸. 80% of women and 78% of men reported voting in the 2007 presidential election. Only 38% of the sample reported that they identify with the incumbent President's party (the Senegalese Democratic Party, or PDS). 48% of students were somewhat interested in politics, while 34% were very interested. Overall, students reported being less interested in politics than the general Afrobarometer survey sample (Table 1). Further, our student sample is hardly elitist. Only 25% of the sample had family working in the government. 71% had mothers with no education; 49% had fathers with no education. On the poverty self-placement scale, 27 of the students characterized their personal predicament as "0", i.e. the poorest measure, while only 1 respondent selected "9",

⁶ Subjects were compensated 1,000 F cfa for their participation. This is approximately equivalent to U.S. \$2.00.

⁷ Debriefing was a critical element of the design for three reasons. First, we wanted to assure the subjects that their confidentiality and anonymity would be maintained. Second, because corruption was a treatment in two of the four conditions, it was necessary that participants knew that the newspaper articles were fictitious, i.e. that the Ministry of Education was not actually corrupt in the way the treatment suggests. Third, because the study took place over a two week period, participants needed to be instructed not to discuss the experiment with anyone.

⁸ It was very difficult to recruit women to the study. Female students seemed more reserved and cautious about participating than their male counterparts.

i.e. the wealthiest measure. Excluding the 43 students who replied “don’t know”, 64% of students answered in categories 0-4 on the poverty scale, while only 35% answered in categories 5-9⁹ (mean=3.20). Overall, students in the sample evaluated themselves as “poor” and were worried about their personal economic predicaments; 25% of respondents were extremely worried about their financial situations, whereas only 15% were not worried (Table 1).

Experiment Design

Independent Variables (i.e. Treatments): We included four treatment groups, one corresponding to each possible combination of good/bad perceptions of economic conditions and corruption. Our treatments consisted of fictitious newspaper articles.¹⁰ The baseline story in each article reported on classroom conditions at the university, specifically, over-crowding:

“The Ministry of Education was told last September that student scholarships must be cut if UCAD is to improve poor classroom conditions. Topping a list of classroom problems are over-crowded classrooms and a shortage of qualified teachers.”

Following the baseline story, a combination of economic and corruption conditions were presented in each article. The articles were made to look as though they were clipped from a national newspaper and copied to paper.

Dependent Variables: The posttest questionnaire contained questions about intentions to vote or protest (as well as attitudes toward/evaluations of political elites). The dependent variable *vote* is simply the posttest question that asked: “Do you intend to vote in the next national election”. It is coded “1” if the respondent did intend to vote and “0” otherwise. The dependent variable *protest* is an index of the “intent to protest” questions (see Appendix) in the posttest questionnaire and is coded 1-6, with higher values indicating more participation.

⁹ Only one student answered “9”, which would indicate the wealthiest response.

¹⁰ All of the items in the study are written in French, one of the official languages in Senegal.

In order to analyze the impact of our treatments on voting and protesting behavior, we first ensured that the subjects were randomly and evenly distributed on key individual characteristics across the treatments. Random and even assignment across the four treatments essentially holds all of the other factors that may impact participation constant, thus ensuring that only the treatment effects are driving the results. For example, imagine that attachment to the President's party (the Senegalese Democratic Party, or PDS) impacts participation. If we ensure that all of the subjects who identify with the PDS are evenly assigned across the four treatment groups, then any impact party identification has on participation will be distributed equally among the treatment groups. Thus, any difference we observe in participation between the treatment groups will be due to the treatment, not partisanship. We verified that subjects were evenly assigned to the treatments by examining the frequency and chi-squared distributions for potential indicators across the treatment groups. For example, the range in frequency across treatment groups for subjects who identify with the PDS is 21% – 28%, and the chi-squared is 0.9, which means that in none of the treatment groups is there a (statistically) significantly larger (or smaller) number of partisans. We tested for random and even assignment across several other potential predictors, including: gender, previous voting behavior, level of family income, interest in politics, religion, religious attendance, level of scholarship recipient, father's and mother's education, economic evaluations (regarding personal predicaments and national predicaments), and whether or not subjects had family working in the government. None of the chi-squared tests were significant for these variables across the treatment groups. Thus, the only independent variables in our experiment are the treatments. This enables us to use difference of means tests, as opposed to regression analysis, to analyze the data.

Experiment Results

Voting: Evaluations of the economy and governmental corruption impact the decision to vote differently. Table 2 shows the independent effects of each evaluation for *vote* and *protest*. The first column of Table 2 reports these results for *vote*. Here, we see that the mean difference of the economic evaluation is 0.10 (p-value=0.07¹¹), while the mean difference of corruption is 0.11 (p-value=0.06). The mean for good economic conditions is higher than the mean for bad economic conditions, which indicates that those in the bad economic conditions treatment are less likely to vote. This is consistent with the argument that when subjects face economic adversity, they turn their attention away from the political realm, the effect of which is a decrease in political activity (see Rosenstone 1982). The mean of high corruption is higher than for low corruption, suggesting that individuals are more likely to turn out when they perceive governmental corruption.

Figure 1 presents the results for the combined effects of the economic and corruption treatments. Here, we see that when corruption is low, voting is less likely for those in the bad economic conditions treatment (mean=0.6) than in the good economic conditions treatment (mean=0.8). This difference is significant (p-value=0.05). Similarly, when corruption is high, voting is less likely for those in the bad economic conditions treatment (mean=0.8) than the good economic conditions treatment (mean=0.9 – although this difference is only weakly significant; p-value=.16). Meanwhile, Figure 1 shows that corruption increases turnout, regardless of the economic treatment. The mean in the good economic conditions/low corruption treatment is 0.8, but 0.9 in the good economic conditions/high corruption treatment (see Figure 1 for statistical significance). The mean in the bad economic conditions/low corruption treatment is 0.6, but 0.8 in the bad economic conditions/high corruption treatment. These results show that voting is most likely when corruption is high, although when combined with a bad economy, the likelihood that

¹¹ We consider significance at the 0.10 level or lower. This is standard for experimental work with small-N.

the subject will vote decreases somewhat. When confronted with information regarding governmental corruption, citizens are more likely to vote.

Protest: Economic conditions do not have an effect on subjects' decision to Protest. The mean difference between the treatments for good and bad economic conditions is small and insignificant (mean difference=0.09; p-value=0.65), compared to the mean difference between the treatments for high and low corruption, which is large and significant (mean difference=0.34; p-value=0.08 – see Table 2). Substantively, this means that a change from low to high perceived corruption produces a movement of 0.34 up the 1-6 scale of the *protest* variable. In other words, although economic conditions have no impact on the decision to protest, when individuals perceive the government to be corrupt, they are more likely to protest.

That economic conditions do not affect the decision to protest is made even clearer in Figure 2, which shows the combined impact of the economic and corruption conditions. The highest mean is associated with the treatment for good economic conditions/high corruption (mean=5.0) and is nearly equal to the mean for the bad economic conditions/high corruption treatment (mean=4.9). The difference in means for these two cells is not significant ($p=0.40$). The means are lower in the low versus high corruption treatments: for “bad economy/low corruption”, mean=4.5; for “good economy/low corruption”, mean=4.6. Again, the difference in means between treatments for good and bad economic conditions and low corruption is not significant ($p=.35$), indicating no difference in participation between those who receive good or bad economic conditions. If economic conditions affect protest behavior, we should see larger and statistically significant mean differences between treatments for good and bad economic conditions.

Regardless of the economic treatment, the mean of protest is larger in the high corruption (i.e. right) column than in the low corruption (i.e. left) column of Figure 2. Also, these differences

are statistically significant. The largest and most significant difference is between the “bad economy/low corruption” and “good economy/high corruption” treatments (mean difference=0.44; p-value=0.08). In other words, subjects in the “good economy/high corruption” treatment are 0.44 units higher on the 1-6 scale for protest than subjects in the “bad economy/low corruption” treatment. It thus appears that subjects are unwilling to pay the costs of protesting to express personal economic grievances but are willing to pay the costs to protest against corruption.

In summary, the experimental results show that corruption increases the intent to protest and vote. This suggests that in addition to having a negative impact on political attitudes (as shown in the studies of Anderson and Tverdova 2003 and Manzetti and Wilson 2006), perceived corruption motivated these African students to become active in politics by voting and protesting. These results may be surprising to some, who might expect corruption to decrease citizens’ expectations of governmental responsiveness. If corruption *did* decrease expectations of responsiveness, then citizens in the treatments for high corruption would have been less likely to vote and protest. The evidence, however, shows that they are *more* likely to vote and protest. Our experiment suggests that in Senegal, people are citizens; that is, if they view the government as corrupt, they go to the polls or to the streets to try and remove corrupt governments and officials.

Participation in Senegal: Results from the 2005 Afrobarometer Survey

In this section, we use the Afrobarometer survey instrument to test the external validity of our experimental results, using questions from the survey to control for the effects of clientelism on participation. For this analysis, we use the 2005/2006 Afrobarometer Survey of Senegal.

Dependent Variables.

As in our experiment, we analyze two forms of participation, voting and protest. To measure our first dependent variable, voting, we use a simple dichotomous measure of self-

reported participation in the last election. The variable takes on the value of 1 if the respondent reports voting, 0 otherwise. For our second dependent variable, protest, we use an indicator of whether the respondent reported having ever attended a protest or demonstration. This variable is measured on a five-point scale ranging from the answer “no, would never do this” to “yes, often”.

Explanatory Variables

Economic conditions: We use two variables from the Afrobarometer survey to capture the economic condition of the respondents. Given that the survey has no measure as relevant to each respondent as was the issue of student fees to the student sample used in our experiment, we use two items, one more general, the other more specific. The first is an assessment by the respondent as to his or her economic condition. This variable is coded on a five-point scale ranging from “very bad” to “very good”. Our second variable codes whether and how often the respondent has had to go without food. This variable is a five-point scale ranging from “never” to “always”.

Perceptions of corruption: In our experiment, we primed our subjects to think about the corruption of national-level political figures in the Ministry of Education. In the Afrobarometer survey, respondents are not asked about particular ministries; however, they are given the opportunity to assess the corruption of two kinds of national-level officials, the office of the presidency and non-elected national officials. Respondents were asked to assess how many officials in each of these institutions are corrupt. Each of these measures is a four-point scale ranging from “none” to “all of them”. Interestingly, the percentage of people who believe that no officials are corrupt is about the same for each type of institution (~17%). The percentage of respondents who believe that some are corrupt is also similar (~28) as is the percentage who believe that most are corrupt (~15%). For each question, a sizeable and similar proportion of

respondents (about 33%) responded “don’t know”. We coded all “don’t know” responses to the mean value of each survey question.¹²

As in our experiment, we wish to understand how respondents’ economic situations as well as their perceptions of corruption affect their decision to participate in politics. However, because our survey sample includes representatives of all types of Senegalese, we control for several factors that we were able to hold constant in our experiment, including age, education and partisanship. In addition, we investigate how partisanship interacts with clientelism and respondents’ perceptions of corruption to affect respondents’ political behavior.¹³

Control Variables

Social characteristics: Respondents’ level of education is a ten-category variable ranging from no formal schooling through post-graduate education. Age is measured in years. Gender is coded 0 for male and 1 for female.

Partisanship: We anticipate that partisanship affects political participation directly as well as indirectly through respondents’ perceptions of the corruption of elected national officials. In general, partisans should be more likely to vote and protest than non-partisans, since partisanship taps into overall commitment and interest in politics as well as support for a particular political party. However, the way in which partisanship affects the relationship of corruption and political behavior is likely to be complex. For example, supporters of the president’s party may view corruption of the president quite differently than supporters of the opposition, which, in turn, may affect their decisions to participate. Recall that in our experiment, we ensured that the numbers of partisans and the ties to specific parties were equal across treatment groups. In our analysis of

¹² A common way to deal with “don’t know” responses is to recode them to the middle response (e.g. Mendelberg 1997, Weisberg 2005). Our measure of perceived corruption has four response options. To avoid arbitrarily selecting a midpoint from a four-point scale, we instead code to the mean.

¹³ We initially included an interaction of our two measures of economic conditions with perceptions of corruption, but neither interaction was significant, so we do not include these variables in the models reported in Table 3.

survey data, we take advantage of multiple questions and the flexibility of regression analysis to include direct and interactive effects of partisanship in our models.

First, we include measures of party affiliation. To do this, we take advantage of two questions in the Afrobarometer survey. The first asks respondents if they feel close to a particular party, and if so, a second question asks to which party they feel close. We consider three possible responses: Either a respondent feels close to Senegal's dominant party, a respondent feels close to an opposition party, or a respondent does not feel close to any party. In our sample of Senegalese respondents, most feel close to the party of the president, but substantial numbers feel close to one of several opposition parties. We lump those who don't know whether or not they feel close to a political party into the same category as those who said that they do not feel close to a political party. Thus, from these responses we create three dummy variables, and we include two of these (feel close to dominant party or feel close to an opposition party) in our regression analyses.

Second, we include the interaction of partisanship and perceptions of corruption in the regressions on voting and protest. It seems reasonable that a supporter of the president's party (in Senegal, this is the dominant party) may behave differently than a supporter of an opposition party given that each perceives the president to be corrupt. To separate out the differential effects of perceptions of corruption on participation for supporters of the president's party versus supporters of the opposition, we include interactions of partisanship and perceptions of corruption. As will be seen, these interaction terms provide crucial evidence about how perceptions of corruption impact voter turnout. The interaction terms are not significant predictors of protest.

Clientelism: As already discussed, many scholars characterize Senegal's political system as one in which powerful patrons buy the support of weaker clients, and they argue that it is through these clientelist relationships that corruption impacts participation. The Afrobarometer

survey allows us to test the effect of clientelism on participation. In addition, we need to address the possibility that respondents' perceptions of official corruption may be influenced by their participation in corrupt clientelist relationships.

In the Afrobarometer survey, respondents were asked whether they had ever been offered a payment in exchange for their vote, and we use this question to study the effect of clientelism on participation. First of all, we include the Afrobarometer measure of whether a respondent has been offered a payment to vote, which we label clientelism. Second, we test the effect of the interaction between having been offered a payment to vote and partisanship. Because of the general level of poverty in Africa, we reason that only the dominant political party, which in Senegal controls the presidency as well as a large majority of seats in the national legislature, has sufficient resources with which to buy votes. Therefore, if clientelism influences democratic politics in Senegal, we would expect supporters of the president's party who had also been offered a payment for their vote to behave differently – specifically, to be more likely to vote – than supporters of the opposition or supporters of the president's party that were not offered a payment for their vote.

Predictors of Voting

We report the results of regression analyses of predictors of voting and protest in Table 3. Our first dependent variable, whether the respondent voted in the last election, is dichotomous; therefore, we report the results of a logit regression in Model 1. Our second dependent variable, whether the respondent attended a demonstration or march, is a five-point scale¹⁴; therefore, to aid

¹⁴ The dependent variable, protest, is a five-point scale, and so is more appropriately modeled as an ordered probit regression. As is often the case, the results of the ordered probit analysis were almost identical to that of OLS using robust standard errors. Therefore, because the results are so easily interpreted, we present the results of the OLS regression in Table 3. Results of the ordered probit analysis are available upon request.

interpretation we report the results of ordinary least squares regression in Model 2. In each regression, we report robust standard errors.¹⁵

Economic conditions: As can be seen in Model 1 of Table 3, respondents' assessments of their own economic conditions have no statistically significant effect on whether or not they voted in the last election. Even going without food does not significantly affect voting. Our results reflect the null results found by others who have used surveys to investigate the relationship between economic conditions and voting. Recall that in our experiment, we found that economic conditions affected only voting and the effect was to decrease voting when the economic condition was poor. Based on the combined results of our experiment and analysis of the Afrobarometer survey, we conclude that in the African context, in which economic conditions are generally extremely bad and do not improve upon election of new leadership, economic conditions are not used by Africans to evaluate the performance of their government and do not result in political participation. Assessments of economic conditions, even when measured by a highly personal condition such as going without food, have little or no effect on intent to vote.

We also examine the effect of education, age and gender on intent to vote. We find that the more educated the respondent, the more likely he or she is to vote. Age and gender also influence voting in expected ways. The odds of voting increase with age, while men are more likely to vote than women. Thus, contrary to findings reported by Bratton et al (2005), we find that in Senegal, the effects of education, age and gender conform to the standard SES model.

Perceptions of corruption: To understand how corruption affects voting, we examine the direct and interactive effects of perceptions of corruption and partisanship on voting. Observe that partisanship, measured by closeness to the president's party and closeness to the opposition, has a

¹⁵ All discussions of statistical significance involve coefficients that fall within a 95% confidence interval.

large and significant effect on voting (and this relationship holds regardless of whether interactions are included in the model). Partisans are much more likely to vote than non-partisans.

Interpretation of the effects of perceptions of corruption on voting, as reported in Table 3, is complicated by the fact that we include interactions of partisanship and perceptions of corruption in our regressions. Thus, as presented in Model 1, the effect of partisanship (being close to the president's party or to the opposition) captures only the effect *for those who do not perceive the president as being corrupt*. Clearly, partisans who do not perceive the president and his officials as corrupt are highly likely to participate.

Note that only perceptions that the *president* is corrupt affect the decision to vote. Given that the national officials referred to in the Afrobarometer question are not elected, it makes sense that perceptions that they are corrupt would not affect the decision to vote.¹⁶ In Model 1, the coefficient on perceptions that the president is corrupt captures the effect for non-partisans. Therefore, for non-partisans, the effect of perceiving the president as corrupt is to increase the likelihood of voting. The estimated coefficient on the interaction between feeling close to the president's party and viewing the president as corrupt shows that *the more the president's supporters view him as corrupt the less likely they are to vote*. Thus, viewing the president as corrupt affects partisans and non-partisans quite differently. For supporters of the opposition, who are already highly likely to vote, perceiving the president as corrupt neither increases nor decreases the likelihood of voting. For supporters of the president, perceiving that he is corrupt decreases the likelihood that they will vote. Finally, for non-partisans, perceiving that the president is corrupt increases the likelihood that they will vote. Corruption inspires non-partisans to get involved. Most important, these results hold even when controlling for clientelism.

¹⁶ According to Michael Bratton and Carolyn Logan, primary creators and sponsors of the Afrobarometer surveys, national officials are members of cabinet (email correspondence with authors).

Does clientelism, conceived of as vote buying in our model, affect voting? Interestingly, those respondents who reported being offered a payment to vote were significantly less likely to vote than those who were not offered a payment to vote. In contradiction to accepted wisdom, the interaction of clientelism and partisanship has no significant effect on whether or not the respondent votes. This means that for all Senegalese respondents, whether they support the ruling party or not, clientelism has the same effect on turnout – it depresses it.

Our regression results support and expand the relationships uncovered in our experiment. As in the experiment, we find that perceptions of corruption have strong and significant effects on voting, and we are able to differentiate between the effect of corruption on partisans and non-partisans and on the impact of perceptions of corruption across different national offices.

Predictors of Protest

As with the experimental results, the survey results for protest differ in important ways from the results for voting. Taking time away from work or from the task of providing daily necessities is very costly in a poor country like Senegal. In addition, protesting can be dangerous. Therefore, in general, far fewer people protest than vote. We report the results of our regression analysis of protesting in Model 2 of Table 3.

Economic Conditions: As with voting, a respondent's self-reported economic condition has no effect on whether or not he or she has attended a demonstration. Even having had to go without food has no effect on whether or not the respondent has protested. Although we find these results surprising, they are exactly analogous to the results we found in our experiment – economic conditions have no impact on whether or not subjects choose to protest. Further, these findings are in accord with analyses by Bratton and van de Walle (1997), who argue that economic conditions alone cannot explain protest. As expected, age depresses protest (the younger are more likely to

protest), and men are much more likely to protest than women. In addition, the more educated the respondent, the more likely he or she is to protest, and this effect is highly significant.

Perceptions of corruption. Although none of the interactions of partisanship and perceptions of corruption are statistically significant, we present the full model, as estimated and presented for voting, in Model 2. Note that we also include the measure of clientelism and its interaction with partisanship. We do this for completeness and because we reason that being exposed to corruption (through vote buying) may affect another form of participation, in this case protesting. Because all interactions included in the model are insignificant, we focus on the direct effects of partisanship and perceptions of corruption.

As we see from Model 2 in Table 3, respondents who feel close to the president's party are more likely to protest than those who feel no party affiliation. Feeling close to an opposition party has no significant effect on protesting. In addition, respondents who view the president as corrupt are less likely to protest; whereas, respondents who view national officials as corrupt are more likely to protest. We believe that these results reflect an understanding on the part of Senegal's citizens of how they can most effectively act to remove a corrupt politician. Individuals who view the president as corrupt can use their vote to try and remove him (and we present evidence that they do so in Model 1), but there is nothing that individuals can do to remove corrupt officials who are not elected other than to protest.

Discussion

Although some of the countries that attempted a transition to democracy in the 1990s have reverted back to authoritarianism, many African countries continue the path of transition – Senegal is one such country. In Senegal, as in other emerging African democracies, corruption remains rampant. While all experts on Africa acknowledge the profound impact of widespread

corruption on politics, there is disagreement on the role that average citizens play in the corrupt system. At stake is the status of Africans – are they subjects or citizens?

We have addressed this question in some detail. In the first place, we implemented a field based experiment designed expressly to uncover the ways in which corruption affects citizens' participation, broadly conceived. In the experiment, we find that perceptions of corruption increase the likelihood of both voting and protesting. And, we find that corruption has a particularly strong effect when economic conditions are poor. If the Senegalese students in our experiment had exhibited a subject mentality, a story about nepotism in a government ministry, something the subject would have little opportunity to affect, ought to have reduced participation. Instead, subjects' perceptions of corruption increased their likelihood of both voting and protesting. The fact that perceptions of corruption increased *both* voting and protesting increases our faith in these results. Further, the very minimal impact of changes in economic conditions on political participation, coupled with the consistent effect of corruption suggests to us that our Senegalese students accurately interpret their political reality. In a world in which changes in regime have had almost no impact on economic conditions, people in Senegal look to other indicators of performance, in particular, corruption, and they respond accordingly.

Using the Afrobarometer survey data, we find that the patterns uncovered in our experiment hold. That is, regardless of age and social background, Senegalese generally respond to corruption with increased participation. With the survey data, however, we are able to explore more fully the effect that partisanship has on these relationships. Given that in Senegal, politics is dominated by one political party (the party of the president), if patronage relationships characterize politics there, we would expect supporters of the dominant party to be most likely to

behave as subjects rather than as citizens. Thus, we would expect that while perceptions of corruption might increase participation for supporters of the opposition, such perceptions ought to have no effect on supporters of the president. Instead, we found that supporters of the president's party who view the president and his office as corrupt are less likely to vote than supporters of the opposition or non-partisans. Further, partisanship has no differentiable effect on protesting. All respondents who view national officials as corrupt are more likely to protest.

Our results on clientelism are also revealing. In particular, respondents who had been offered a payment for their vote were less likely to vote than those who had not been offered a payment. As discussed by van de Walle, with the advent of the secret ballot, patrons have no effective way to police the voting behavior of their clients. Indeed, this finding provides support for his argument that the process of democratization erodes traditional clientelist relations (2007). Even more important, the interaction between support for the president's party and clientelism is not statistically significant – partisanship does not mediate the effect of clientelism on either voting or protesting. Thus, our results suggest that clientelism cannot account for the impact of corruption on voting.

In both the survey analysis and experimental work, we find consistent results for the effects of corruption on participation. Rather than becoming willing participants in corrupt behavior, or feeling that they cannot influence a corrupt government, citizens faced with governmental corruption turn out to vote and protest. Thus, despite poverty and widespread corruption, in Africa as elsewhere the conditions and stakes of political engagement change dramatically after citizens have been given the right to vote and democratization has begun.

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Table 1
Profile of the Experimental and Survey Populations

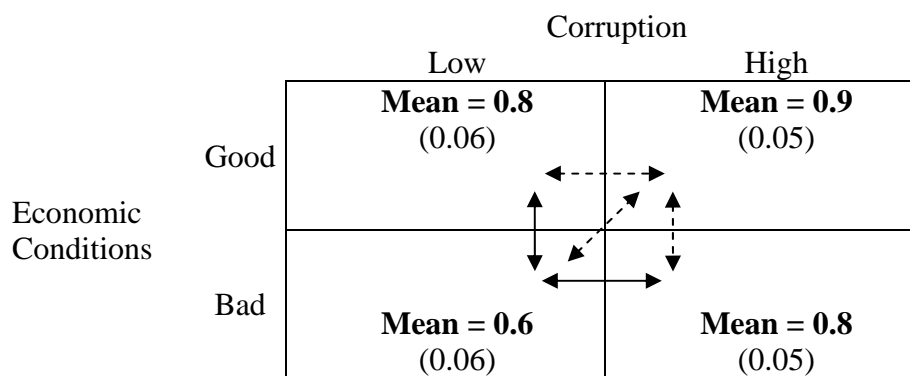
Experiment/Survey Questions	Experiment	Survey
Voted in last election (Scale: 0=no; 1=yes)	Mean = .78	Mean = .65
Interested in Politics (Experiment Scale: 1-3, where higher values indicate more interest Survey Scale: 0-1, where higher values indicate more interest)	Mean = 2.15	Mean = 2.03
Partisanship (This is the percentage of the sample who identify with the incumbent's party – the PDS)	38%	38%
Gender (Scale: 0=female; 1=male)	Mean = .78	Mean = .48
Education (Scale: 0-9, where 0=no formal schooling; 9=post-graduate degree)	N/A	Mean = 2.16
Do you have family working in government: (Scale: 0=no; 1=yes)	Mean = 0.25	N/A
Level of father's education (Scale: 1-7, where 1=no education; 7=doctoral degree)	Mean = 2.11	N/A
Level of mother's education (Scale: 1-7, where 1=no education; 7=doctoral degree)	Mean = 1.47	N/A
Self placement on a poverty scale (Experiment Scale: 0-9, where 0=poorest; 9=richest Survey Scale: 0-10, where 0=poorest; 10=richest)	Mean = 3.2	Mean = 5*
Do you receive a scholarship? (Scale: 1-5, where 1=full scholarship; 5=do not receive a scholarship. Over 40% of the students in the experiment received a full scholarship).	Mean = 3.4	N/A

*The Round 3 Afrobarometer questionnaire did not ask respondents to place themselves on the poverty scale, so this figure is taken from the Round 2 Afrobarometer data for Senegal.

Table 2
 Difference of Means Test for Independent Effects
 of Pocketbook Conditions and Perceived Corruption

	<u><i>Vote</i></u> (0 = will not vote, 1 = will vote)		<u><i>Protest</i></u> (1-6, higher = more participation)	
Economic Conditions	Mean (good economy) = .84	p-value	Mean (good economy) = 4.87	p-value
	<u>- Mean (bad economy) = .74</u> Mean difference = 0.10	0.07	<u>- Mean (bad economy) = 4.78</u> Mean difference = 0.09	0.65
Perceived Corruption	Mean (high corruption) = .85	p-value	Mean (high corruption) = 4.99	p-value
	<u>- Mean (low corruption) = .74</u> Mean difference = 0.11	0.06	<u>- Mean (low corruption) = 4.65</u> Mean difference = 0.34	0.08

Figure 1
Vote (coded 0 – 1)
(Standard Errors are in Parentheses)

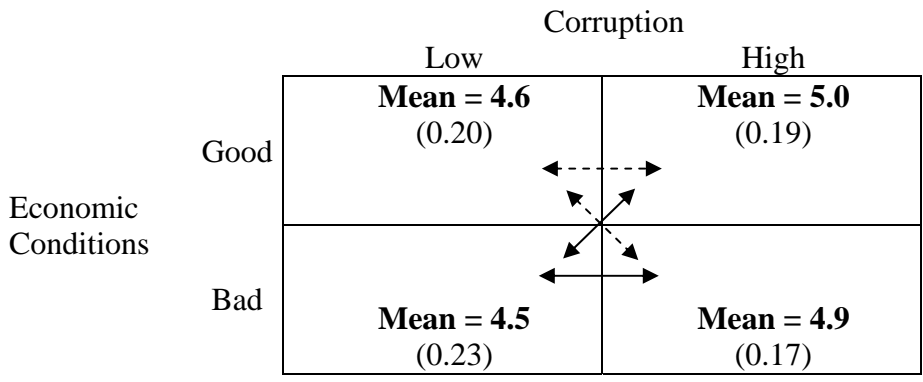


Key:

Solid arrows are significant ($p=0.01 - p=0.10$)

Dashed lines are weakly significant ($p=0.12 - p=0.16$)

Figure 2
Protest (coded 1 – 6)
(Standard Errors are in Parentheses)



Key:
Solid arrows are significant (p=0.01 – p=0.10)
Dashed lines are weakly significant (p=0.12 – p=0.16)

Table 3
 Model 1, logit regression of predictors of turnout
 Model 2, OLS regression of predictors of protesting.
 (Robust standard errors in parentheses)

Explanatory Variables	Model 1 Vote	Model 2 Protest
Age	.082 (.008)	-.009 (.002)
Gender	-.279 (.147)	-.172 (.061)
Education	.078 (.037)	.072 (.016)
Past living conditions	-.045 (.081)	.032 (.034)
Gone without food	.035 (.054)	.024 (.023)
Close to president's party	1.024 (.312)	.255 (.1395)
Close to an opposition party	1.182 (.481)	.120 (.181)
Offered payment to vote	-.646 (.212)	-.096 (.076)
Close to president's party and offered payment to vote	.25 (.319)	-.039 (.134)
Office of President corrupt?	.498 (.1997)	-.154 (.071)
National officials corrupt?	-.267 (.466)	.246 (.072)
Close to president's party and view president as corrupt	-.578 (.283)	-.037 (.126)
Close to an opposition party and view president as corrupt	-.312 (.5195)	-.019 (.164)
Close to president's party and view national officials as corrupt	.126 (.269)	.001 (.1297)
Close to an opposition party and view national officials as corrupt	.271 (.442)	-.093 (.156)
Constant	-2.311 (.532)	.9995 (.211)
Pseudo R ² / R ²	.2081	.0778
N	1149	1103

Appendix

Experimental Treatment Assignment

Subjects were assigned to one of four treatment groups, each of which was characterized by both a specific type of economic condition and corruption treatment. There were four unique treatments, with 52 participants in each, which we illustrate in the following two-by-two table.

		Corruption Conditions	
		Low	High
Economic Conditions	Good	(1) – scholarships increased 10%; no corruption mentioned	(3) – scholarships increased 10%; government facing corruption allegations
	Bad	(2) – scholarships decreased 10%; no corruption mentioned	(4) – scholarships decreased 10%; government facing corruption allegations

Experimental Index of Protest Activity

We ran diagnostics on the three “intent to protest” questions from the posttest questionnaire to see if we were justified in creating an index for the dependent variable *protest*. The questions included:

- 1) “How likely would it be for you to protest to get the government to address University problems such as classroom over-crowding?”;
- 2) “How likely would it be for you to protest to get the government to address University problems, such as shortage of teachers?”; and
- 3) “How likely would it be for you to protest to get the government to address University problems, such as inadequate food on campus?”

We used the Chronbach’s Alpha to test whether or not we were justified in placing these items on an additive index. Chronbach’s Alpha (1951) is based on the mean inter-item correlation for all possible variable pairs. It provides a conservative estimate of reliability. The Alpha for protest was high (0.88), which provides justification for the additive index. The index contains the mean response for these three questions by respondent. The indexed responses still range from 1-6, with higher values indicating more participation.