The (Ir)Relevance of Relative Provision: Experimental Design

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Abstract

Why is being favored by the incumbent regime so important to African voters? In particular, why does high relative provision appear to be as or more important than high absolute provision? I propose a simple theory: in a low-information environment, voters who know whether an incumbent favors them, rather than simply knowing whether or not he has provided to them, are far more able to correctly assess the incumbent’s level of theft and their likelihood of being better served under a challenger. I use an experimental game as well as observational data to determine whether relative provision is in fact more important to voters than absolute provision, and how information affects this. I show that both the premise and the theory are incorrect.

Note to the discussant: This is a very initial analysis of data that was gathered this summer and is not the most cogent piece of writing you will ever see. If you need clarification on something in order to discuss the paper, please ask!

Many theories of ethnic voting in Africa highlight voters’ preferences for politicians that will favor them in the distribution of scarce government resources (e.g. Wantchekon (2003)). African voters often expect to be favored by their coethnics, and such expectations of favoritism are offered as an explanation for why African voters’ tend to prefer coethnic candidates (Posner, 2005; Ichino and Nathan, 2013; Ferree and Horowitz, 2010). But why is being favored so important?

An obvious explanation for this preference is that voters want to maximize their absolute well-being, and higher relative provision is correlated with higher absolute provision. In a context in which all government resources are divided amongst groups, the correlation is perfect: maximizing absolute provision will always mean selecting the leader who provides a greater share of resources to the voter. However, in many African contexts, not all resources are distributed: leaders keep some portion of resources for themselves. What a voter receives from government is a function both of the size of his share of distributed resources, and the share of the total resources that are actually distributed. Relative provision and absolute provision are not necessarily correlated: a voter could
be absolutely worse off selecting a leader who will favor him with distribution if that leader is only going to distribute a small portion of the total. If relative provision is only important as a proxy for absolute provision, but the two are not perfectly correlated, we should be able to enter both into an analysis and see that only absolute provision remains significant.

And, yet, the African voting literature shows that, controlling for absolute well-being, perceptions of relative well-being continue to have a significant effect on vote choice. Analysis of multiple rounds of survey data on the Afrobarometer indicates that a belief that one’s ethnic group is “treated unfairly” remains significant even after voters’ sociotropic and pocketbook evaluations are taken into account (Bratton, Bhavnani and Chen, 2011; Ferree and Horowitz, 2010). Others theorize that being favored is more important to voters than is absolute well-being. Padro i Miguel (2007), for example, argues that Kenyan voters’ belief that an incumbent will favor them is what leads the repeated election of incumbent kleptocrats who have not provided economic growth.

My own research also supports the conclusion that being favored is more important to Ugandan voters than simply receiving goods. In a vote choice experiment, I asked respondents to choose between two hypothetical candidates. The candidates were randomized as to whether they were likely to favor the voter (as signaled by coethnicity) and whether they were likely to steal any future resources (as signaled by whether they had stolen or distributed resources in the past). If high absolute provision is what matters to voters, then they should always pick a candidate who distributes rather than steals, regardless of whom the candidate will favor in that distribution. I show that this is not how respondents voters: instead, they refused to support any candidate who would not favor them. This was true even if the disfavoring candidate was a distributor, and his opponent was a thief. The experimental results are echoed by statements from a number of respondents in the survey portion of the study: they acknowledged substantial recent improvement in local public goods in their community, but still refused to support the incumbent because they believed that was spending more resources elsewhere. Being favored appears to be more important to voters than whether they will receive anything at all.

Why would high relative provision matter in and of itself? It is possible that voters hold an inherent psychological preference for being favored, or at least not disfavored. This resonates
with theories that argue that individuals’ self worth is measured by the status of their group in society (Horowitz, 1985) and those that argue that relative wealth and status is more important to individuals than absolute well-being (). It is also supporting by findings that voters in other contexts that voters care whether their leader is fair to all groups in society ().

My hypothesis, however, is that relative provision is important to voters because it provides information about candidate type that information about absolute provision can’t. Voters in African societies have limited information about available resources and may or may not know what resources a leader has at his disposal. This means they also don’t know how large a share of these resources is being distributed and how much is being stolen. Imagine a voter, whose community has received some local public goods from the government, but not enough to meet the community’s needs. How is the voter to interpret this? The shortfall may mean the incumbent stole a large portion of a budget that would have provided sufficient goods; may mean the incumbent is directing most of the resources to others; or may mean the incumbent is giving the voter the most he can of a small pot. In the former two cases, the voter might be better off under a new leader who would steal less or direct more toward him, but in the latter case, he is unlikely to be better off under a new leader. The voter cannot distinguish which scenario he is in without more information. As I show below, knowledge of the resources the leader has at his disposal is the most useful information, but any leader who is stealing has a strong incentive to keep this information private. Information on relative provision is more readily available and can serve as a reasonable proxy, allowing a voter to more accurately assess the probability he will be better off under a new leader.1

The study that I present here is designed to determine whether Ugandan voters actually do prioritize relative provision over absolute provision, and, if so, whether this is an inherent preference or a response to a low information environment. I conduct an observational analysis of the correlation between vote choice and perceptions of absolute and relative provision. I also conduct two experiments – a survey experiment and a game – in which I manipulate whether and what information voters have about absolute and/or relative provision. I show robustly and conclusively that, despite my hypothesis and existing evidence to the contrary, Ugandan voters do not prioritize

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1See a similar argument in Gottlieb (2012)
high relative provision, and vote simply based on absolute provision. This is true regardless of the amount of information they have.

1 Theory

To theorize the informational role that could be played by relative provision, let us assume a simple game with four players: a president, a challenger and two interest groups. The incumbent (which the challenger will become should he be elected), divides a pool of resources between himself and the two interest groups, according to his preferences, which are exogenous to the game. The incumbent and challenger are notated I and C, respectively. The groups, notated A and B, are unitary actors. The pool of resources is notated G. The allocation of goods by the incumbent would therefore be:

$$G_i = \theta_i G_i + \theta_a G_i + \theta_b G_i$$  \hspace{1cm} (1)

where $\theta_x$ represents the share of the budget the incumbent distributes to player $x$. The shares are drawn from uniform distributions, where $\theta_i \in [0-1]$ and $\theta_a \in [0-(1-\theta_i)]$. The two interest groups cannot directly observe the president’s preferences, but only the payouts that result from those preferences, noted $D_a$ and $D_b$ (which equal the product of G and $\theta_a$ and $\theta_b$, respectively.) Neither group knows either $\theta_i$ or the payout the incumbent receives, as this information is kept secret by the incumbent. In expectation, $\theta_i = 0.5$

Group A, which at 51% of the population controls the election, must decide whether to reelect the incumbent, in which case they will receive the same payout in time $t+1$, or they can unelect the incumbent, in which case they will receive a new incumbent whose budget and preferences are unknown, but drawn from the same distribution as the incumbent. A will choose to reelect the incumbent when the size of his allocation under the incumbent is greater than the expected allocation under the challenger. Like the incumbent the challenger is expected to take half for himself; he should split the remainder between the two citizens ($\theta_a$ and $\theta_b$ are both 0.25).\(^2\) $G_c$,
drawn from the same unknown distribution as $G_i$, is equal in expectation to $G_i$. A should therefore reelect I if $\theta_a >= 0.25$ or when $D_a >= 0.25 * G_i$. In a setting where $G$ is known, this is a straightforward determination to make.

In a low-information setting, however, where A does not know $G$, they cannot determine whether $D_a >= 0.25 * G_i$. However, they know that, in expectation, both the budget and the amount the incumbent will keep for himself are the same for both candidates. Following the model, A should reelect when $\theta_b >= 0.25$, which also means that $\theta_a >= 0.25$, which means that $\theta_a = \theta_b$, and $D_a = D_b$. A can make this determination if they know $D_b$.

In the low information context in Africa, however, voters may not even have objective information about $D_b$. Instead, they infer the relationship between A and B’s payouts based on ethnic cues. Voters anticipate that politicians favor their coethnics. Given a coethnic incumbent, A assumes $\theta_a > \theta_b$ and $D_a > D_b$, and votes accordingly.

### 1.1 Simulation

I simulate the effectiveness of different decision rules, based on the amount of information voters have, on selecting a correct candidate. For each player, I generate both an incumbent and a challenger. Both have a $G$ drawn from $N(2000, 500)$. Each candidate distributes the pot between himself, player A and player B, with the amounts drawn from normal distributions as described above. As expected, the median candidate in the simulation receives a pot of 2000, keeps 50% (1000) of the pot for himself, and gives 25% (500) to both A and B. I determine each player’s correct vote, which takes a one if their payout under the incumbent is greater than the payout under the challenger.

If we assume that players know the incumbent’s budget, but not the challenger’s, we can simulate a decision rule in which players vote for the incumbent when their payout is greater than 25% of $G_i$; this produces a correct vote approximately 73% of the time. If players know only their own payout, but nothing else, deciding to reelect when their payout is more than zero, they make the correct decision only slightly more than half the time (53%).\(^3\) If the player knows his own payout

\(^3\)Voters could also have some non-zero positive threshold for their decision. Some thresholds, at the low end of the distribution, improve accuracy, but as the threshold continues to move beyond $0.25 * G$, the accuracy of votes...
and that of player B, and decide to reelect if his payout is higher than B’s, he will make the correct decision 65% of the time, a substantial improvement over voting on A’s payout alone. In a context where G is not known, therefore, knowing what other players receive can improve the accuracy of one’s vote substantially.

Assuming that voters want to maximize $D_a$, the hypotheses arising from this model are:

1. Voters will prefer to vote on the difference between $D_b$ and $D_a$, rather than $D_a$ itself.
2. Information on $D_b$ will allow voters to cast more correct votes, selecting presidents who will provide a higher $D_a$.
3. Information on G should reduce the salience of $D_b$ to vote choice.
4. Ethnicity should predict vote when players lack information on $D_b$ and G, but not otherwise.

2 Methods

I tested the hypothesis with a survey and two experiments in Mukono District in Uganda. Every member of the 1970-person sample took part in a survey about their well-being and their general attitudes toward politics. The sample was then split between those who took part in survey experiment and those who played an experimental game. Those assigned to the survey treatment heard information about either relative or absolute provision before reporting how they would vote in an upcoming election; those assigned to the game treatment, who were also asked their vote, served as the control group of this experiment. Those assigned to play the game were assigned to play under one of five different informational contexts. Table 1 provides a guide to the various, factorialized treatment assignments.

Both the survey and the survey experiment provide a test of the premise of the study that voters do, in fact, prioritize high relative provision over high absolute provision in deciding their vote. In the survey, all respondents were asked about the quality of local public goods in their community, including clean water, public health clinics and public schools. Specifically, they were asked whether cast using this threshold declines to below 50%. Without knowing G, voters have a greater likelihood of hurting the accuracy of their vote than helping it by choosing an arbitrary non-zero positive threshold.
the good has improved in the past two years (recent absolute provision) and whether the good is better or worse than what other Ugandans have in their communities (relative provision).

At this point respondents were randomly assigned to hear one of three statements. The statements were intended to confirm or challenge respondents evaluations of the quality of local schools. Half of respondents – those in the control – were told simply that “many others we interviewed agree with you about the quality of schools in this community.” A second group (25% of the sample) were told that many people agreed with them, but that others disagreed with them about recent improvements. The final group was told that many people agreed but that others disagreed with them about whether other community’s schools were better or worse. The intention of the treatments was to reinforce their views, shift their views on absolute provision, or shift their views on relative provision, respectively.

All respondents were then asked to report how they would vote in both local and national elections if the election were held tomorrow. If voters prioritize relative over absolute provision we should see the reported votes of those in the control group are more strongly correlated with their assessments of relative provision than absolute provision. We should also see that the difference between the vote choices of control and treated should be larger when the treatment provides new information about relative provision than when it provides information about absolute provision.

3 Experimental Game

The experimental game tests whether prioritization of high relative provision (if it exists) is a result of the information environment. The game is a variation on a three-player dictator game, in

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4The good in question was local primary schools, which my earlier analysis and those of others (Harding and Stasavage, 2012) suggest are particularly important to African voters.

5The particular content of the statement was customized based on respondents’ original assessment of school quality. If they reported that their community’s schools were better, for example, they were told that while many people agreed, others reported that their community’s schools were worse. The statements were entirely true: respondents gave a wide range of assessments of the absolute and relative quality of their schools.

6The extent to which learning that others hold contradictory views will shift respondents’ own views depends in part in how much personal experience they have with these goods, and how confident they are in their ability to accurately assess overall quality from these experiences.

7In order to increase the accuracy of their reports, I asked respondents to self-report their vote choice on a ballot rather than report it to the enumerator. All parties were represented with both the name and the party symbol. There was also a “would not vote” option, represented with an X, and an “independent” option indicated with a blank box.
<table>
<thead>
<tr>
<th>Group</th>
<th>Took survey?</th>
<th>Survey treatment</th>
<th>Reported vote?</th>
<th>Played game?</th>
<th>Game treatment</th>
<th>n</th>
</tr>
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<tr>
<td>One</td>
<td>Yes</td>
<td>Info re: absolute provision</td>
<td>Yes</td>
<td>No</td>
<td>n/a</td>
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</tr>
<tr>
<td>Two</td>
<td>Yes</td>
<td>Info re: relative provision</td>
<td>Yes</td>
<td>No</td>
<td>n/a</td>
<td>434</td>
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<tr>
<td>Three</td>
<td>Yes</td>
<td>No new info (control)</td>
<td>Yes</td>
<td>Yes</td>
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<td>Four</td>
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<td></td>
<td>A,E,B</td>
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<tr>
<td>Six</td>
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<td></td>
<td></td>
<td></td>
<td>A,E,G</td>
<td>221</td>
</tr>
<tr>
<td>Seven</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>A,B,E,G</td>
<td>212</td>
</tr>
</tbody>
</table>

Key: A = respondent’s payout, E = likely ethnicity of president, B = other player’s payout, G = total size of pot.

which a “president” decides how to distribute a pot of money between himself, the respondent (a “citizen”) and another player (also a citizen). I vary the amount of information respondents have about how the dictator/president distributed the goods. Players use the information they have to decide whether to play against the president again (“reelect”) or play against a new, unknown president (“replace”). Respondents play the game between one and three times, depending on how many times they chose to replace their president and get someone new.

The experimental game reflects the model presented in Section One, though with some variations. A key change was the threshold at which all respondents should decide to reelect. In the model, I calculated the threshold with the assumption that the amount that presidents kept and distributed were uniformly distributed, with the respondent receiving \(0.25G\) in expectation. If presidents’ preferences are not drawn from this distribution – or voters do not believe they are – the expected amount, and the resulting threshold of reelection, will be different. The particular distribution voters expect is an empirical question, which I addressed in pre-testing. Among a pilot sample of players who had full information about the distribution in the game, the clear threshold above which most players reelected and below which most players replaced, was 1/3 of the pot. Given that the modal distribution in dictator games in most contexts is one in which all players receive equal amounts, this indicates a rational expectation of what an unknown challenger would provide to the respondent.

The president is from one of three locations: Mukono, Soroti or Mbarara. Since each of these locations is strongly associated with a particular ethnic group, this serves as an indication of his
ethnicity. He has control over a pot ($G$ in the model) drawn from a normal distribution with a mean of 3000 shillings ($1.25). Half of respondents were assigned to receive less than 1/3 of this pot and half were assigned to receive more (from a minimum of 15% of the pot to a maximum of 45%, rounded to the nearest 100 shillings). In a separate randomization, respondents were then assigned a player $B$ who received either more or less than they did (between zero and 90% of the remainder of the pot after $A$’s payout, rounded to the nearest 100 shillings). The amount the president kept is the remainder of the pot after payouts are assigned to $A$ and $B$.

The treatment is the amount of information that $A$ has about how the money has been distributed. As shown in Table 1, players can know 1) only their own payout; 2) their payout and the ethnicity (location) of the president; 3) their payout, the ethnicity of the president and how much Player $B$ received; 4) their payout, the ethnicity of the president and the total size of the budget; or 5) all four pieces of information, from which they can also infer how much the president kept for himself.

This design enables me to test across subjects whether: a) information about relative provision has a larger effect on vote choice than information about absolute provision alone; b) information on relative provision increases the number of correct votes; c) whether the salience of relative provision to voters varies with the total amount of information available; and d) whether ethnicity serves as a substitute for information about relative provision when information about relative provision is not available. I also add a within-subject test. After they voted in the pentultimate round, I allowed players to request one piece of information about the president they had just voted on. Upon receiving that information, they voted again. The type of information they request indicates what they find important in making their choice, while the change in their vote provides a test of the effect of this type of information on vote choice.

4 Details of Implementation

The experiment took place in Mukono, which is a district immediately to the east of Kampala, and includes both a large secondary city approximately 15 miles from the capital and a number of entirely rural parishes. I chose the site for a number of reasons. It is more ethnically homogenous
than Kampala, making it easier to control the assignment of coethnic/non-coethnic players in the game. However, it is far more politically diverse than most places in Uganda, so that I can avoid ceiling effects in attempting to shift support for the incumbent. I stratified constituencies in Mukono by population density and the president’s vote share in the 2011 election. The sample included 50 villages from 15 out of 24 sub-counties and/or town councils in Mukono. One third of the sample sites were urban; one third of sites also supported the opposition in 2011. (These two groups are correlated, but not perfectly.) Respondents were recruited from every fifth house along either side of a randomly selected street. Forty respondents were recruited from each site; with attrition and missingness, the total sample is 1970.

The survey and experiments took place in respondents’ homes. Enumerators read and recorded answers on a smartphone using the OpenDataKit (ODK) android app. The app customizes the surveys based on treatment assignment and previous responses, to minimize errors. Data is uploaded directly to the cloud. ODK cannot randomize within the app, so treatment assignments were assigned outside the game, and entered by the enumerators at the beginning of the survey. Those assigned the game played the game via SMS, with the research assistant randomly assigning the respondent to a game in real time. Only the information that the respondents were to know based on their treatment was sent to the enumerator. This was to prevent enumerators from accidentally disclosing additional information about the game to respondents.

Those assigned to play the game were compensated with the earnings of the game. Those who did not play the game were not compensated, as is the norm for surveys conducted in respondents’ homes. Respondents did not know at the beginning of the study that they might play a game or earn money; they were told only that we wanted to know how people decide how to vote.

4.1 Ethics of the game

The game, as it was played, involved deception, with a debriefing. Players were told they were playing against a player from another location in Uganda. In reality, they were playing against a research assistant in Kampala who was assigning payouts with the help of a computer program. I chose to use deception because it maximized my control without obviously more harm than a
number of other methods.

There were two ways to play the game entirely without deception: The first was to have all respondents play in real time against real opponents. This option was simply untenable. Every respondent needed to receive either less or more than another player, but, as noted, the modal play of dictators in a dictator game is distribute the money equally among all parties. This would mean that a majority of games would be unusable, along with all the other data that I would have collected on each respondent. The second was to tell respondents that they were playing against a research assistant and/or a computer. One concern is that this would profoundly impact the results of the game: my previous research and other indicates that Ugandan voters strongly moderate both their stated preferences and their behavior around outsiders. Because players in dictator games also follow norms of fairness and generosity, players may also play very differently if they realize they are playing against a (presumably) wealthy researcher rather than another Ugandan.

There are also several options that technically do not involve deception. One of these, which is common, is to have a pool of recruited respondents play as president and then later randomly match these presidents to respondents. Those presidents who assigned the pot equally, or whose outcomes were otherwise not useful would be dropped, and those who divided the pot appropriately would be matched to “play” against multiple respondents. A final strategy is to recruit research assistants from each of the locations from which presidents could be from, and have them, rather than an research assistant from elsewhere, play in real time using the computer to determine their choices. In my opinion, however, these strategies still involve intentionally withholding pertinent information and manipulating respondents without their clear consent to such manipulation, and thus require a debrief. Given that a debrief was necessary either way, I chose to use a more straightforward method. In the debrief I told respondents who they had been playing against, what we were trying to learn and what had happened to the money the “president” kept.

I have reason to believe that direct harm to respondents was minimal. After the debrief, respondents were offered a chance to ask questions or make comments and, though many had

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8My research manager is, in fact, from Soroti, but he interacted only with some of those assigned a president from Soroti.
comments or concerns about other parts of the study, none complained about deception (though one woman did complain about not getting as much money as she wanted). There is also the potential harm to other researchers attempting to work with the same population, who now may not believe what these researchers are telling them, even if the researchers are being entirely forthright. Mukono is a convenient site for research, so this is a real concern, and not one I can resolve. However, it should be noted that subjects didn’t particularly trust us in the first place – many thought we were government agents – and the debrief actually seems to have reassured a number of respondents that we were who we said we were. This has potentially positive downstream effects for the credibility of future research in the area.

5 Results (Preliminary!)

I tested the hypothesis using three different methods that each have their own shortcomings. The survey measures attitudes about the actual political context; however, any correlation that exists between political support and evaluations of local public goods may be endogenous or affected by survey bias. The survey experiment creates exogenous change in the information voters have, but the treatment is fairly weak and responses may still be biased since voters have no good reason to report their true attitudes if those attitudes are unpopular or otherwise sensitive. The game incentivizes respondents to act on their true preferences, but it is abstract and may or may not accurately capture how voters feel toward politicians rather than peers. Nevertheless, the results of all three analysis confirm one another. The survey, survey experiment and (round one) of the game all produce the same result, and that is that both my premise and my theory are incorrect.

In the survey, I expected to find evidence that respondents’ vote choices were less influenced by the absolute value of what they had recently received, and more by whether this was more or less than what others get. Table 2 on the other hand shows that support for the incumbent is driven far more strongly by respondents’ beliefs about recent improvement than by their beliefs about how their goods compare to others’. This is also true for support for NRM at the local level. Adding an interaction between relative and absolute provision has no effect. Controlling for support of NRM at one level of government on support for the NRM at the other – a partisan loyalty or coattails
effect – also has no effect. The sample includes only those in the survey treatment control group, whose views were not manipulated before they reported their votes.

5.1 Survey Experiment

The survey experiment similarly confirms that only information about absolute provision can alter vote choice, and that information on relative provision has no effect. The graph in Figure 1 shows the effect on support for the president from four pieces of information. The triangle represents the mean of the control group, who did not hear the information, and the circle represents the mean of the treatment group, who did. Because whether the respondent heard something negative or positive about their local school was not randomly assigned, but was a function of their initial assessment of the school, the control group for each includes only those who provided the same initial assessment.

The results indicate that only information about absolute improvement shifts votes in a substantive or statistically significant way. Those who heard information that, unlike themselves, many others thought that local schools had recently improved increased their support for the incumbent by 12 percentage points, a statistically significant effect. However, providing information to contradict respondents' views about the relative quality of their schools – whether they initially thought their schools were better than others or worse – did not shift votes at all.

5.2 Game

Much like the other two parts of the study, the results from the first round of the game shows that relative provision is not more important to voters' decision-making than is absolute provision. (I will report on the other rounds pending further cleaning.) It was expected that those who had information about relative and absolute provision would prioritize information about the latter. In particular, I expected a shift from being disfavored to favored to have a larger effect than moving the absolute level of provision from below to above the threshold. Though crossing from below 33% of the pot to above it increases re-election of the “president” by at least 40 percentage points,
<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health unit recently improved</td>
<td>0.402**</td>
<td>(0.124)</td>
</tr>
<tr>
<td>Health unit better than others</td>
<td>0.177</td>
<td>(0.124)</td>
</tr>
<tr>
<td>Primary school recently improved</td>
<td>0.686***</td>
<td>(0.134)</td>
</tr>
<tr>
<td>Primary school better than others</td>
<td>-0.125</td>
<td>(0.0131)</td>
</tr>
<tr>
<td>Water access recently improved</td>
<td>-0.065</td>
<td>(0.128)</td>
</tr>
<tr>
<td>Water access better than others</td>
<td>-0.051</td>
<td>(0.126)</td>
</tr>
<tr>
<td>Health improved * health better</td>
<td>0.098</td>
<td>(0.150)</td>
</tr>
<tr>
<td>School improved * school better</td>
<td>0.124</td>
<td>(0.147)</td>
</tr>
<tr>
<td>Water improved * water better</td>
<td>0.056</td>
<td>(0.143)</td>
</tr>
<tr>
<td>Age</td>
<td>0.027***</td>
<td>(0.006)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.017</td>
<td>(0.016)</td>
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<td>News listenership</td>
<td>0.000</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Cash income</td>
<td>-0.584***</td>
<td>(0.149)</td>
</tr>
<tr>
<td>Frequency of food shortage</td>
<td>0.000</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.724**</td>
<td>(0.228)</td>
</tr>
</tbody>
</table>

| N                                             | 1882        |
| Log-likelihood                                | -1151.315   |
| \( \chi^2 \) (14)                            | 251.7       |

Significance levels:  † : 10%  * : 5%  ** : 1%
respondents who receive more than the other player are not significantly more likely to choose reelection.

Table 3: Percent retaining president, given characteristics of payout

<table>
<thead>
<tr>
<th></th>
<th>Less than B’s payout</th>
<th>More than B’s payout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above threshold</td>
<td>0.20</td>
<td>0.25</td>
</tr>
<tr>
<td>Below threshold</td>
<td>0.73</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Nor do we see that high relative provision either adds to, or interacts with, the actual value of payouts: for every given level of payout, support for presidents who favored the respondent and support for presidents who disfavored her are equal. Figure 5.2 shows that the relationship between the respondent’s payout and her likelihood of retaining the president, when she is being favored or disfavored. The relationship between the absolute value of the payout, and expected retention rate, is identical whether this payout is more or less than what the other player received. In other words, there is no evidence in the game that relative provision factors into players’ decisions in any
Finally, information about relative provision does not improve voters’ ability to vote correctly. In fact, the rate of correct votes is more or less constant across all information conditions. Table 4 shows that between 65-75% of respondents choose correctly regardless of what information they have. None of the values in Table 4 are statistically significantly different from the others.

Table 4: Percent voting correctly, by information treatment

<table>
<thead>
<tr>
<th>Information Treatment</th>
<th>Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only own payout known</td>
<td>0.71</td>
</tr>
<tr>
<td>Own payout and president’s location</td>
<td>0.76</td>
</tr>
<tr>
<td>Own payout, president’s location, and B’s payout</td>
<td>0.73</td>
</tr>
<tr>
<td>Own payout, president’s location and size of pot</td>
<td>0.68</td>
</tr>
<tr>
<td>All information</td>
<td>0.65</td>
</tr>
</tbody>
</table>
6 Explanation for null results

The results I present here clearly do not support my theory and hypotheses. This means that they also conflict with a number of findings and theories both in my own work and that of others’. What could explain the discrepancy? Possibilities include:

- Earlier findings that voters value high relative provision may be erroneous and a result of survey bias or other measurement error.

- This sample may be unique: Baganda are Uganda’s largest ethnic group and are well organized under a traditional king. They form an influential voting bloc. My sample is also more educated than the average Ugandan and far more likely to be employed in the cash economy. They may have more information or less concern about being disfavored, and thus rely on a different heuristic than voters elsewhere in Uganda or Africa.

- The study may have been executed poorly: enumerators may have been giving respondents information, such as the size of the pot, or the purpose of the experiments, without my knowledge.

References


