Social Voting in Semi-Authoritarian Systems

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Abstract

In dominant-party states, why do individuals vote in elections with foregone conclusions when they are neither bought nor coerced? I propose that a social norm of voting motivates turnout in these least-likely contexts. Motivated by the belief that regimes reward high turnout with public goods, citizens view elections as an opportunity for community-wide benefit and use social sanctions to enforce the norm. Using lab-in-the-field voting experiments together with survey data, I document the strong influence of a social norm of voting in two semi-authoritarian states in east Africa, Tanzania and Uganda. I find that norm compliance is driven by those most dependent on their local community. These findings help to explain high turnout in elections, individual-level variation in voting behavior, and authoritarian endurance. Rather than government accountability, the results suggest that elections may instead be about *horizontal accountability* to one's local community.

1 Introduction

Why do individuals vote in elections with foregone conclusions? The comparative politics literature suggests that citizens are either bought or coerced (Stokes, 2005; Blaydes, 2010; Gandhi and Lust-Okar, 2009). These theories, however, cannot account for high turnout rates in countries where coercion is not feasible—due to low state capacity, for instance— and clientelism is limited. I propose that a locally-enforced social norm of voting helps elucidate this puzzle of participation and provides insight into why citizens vote in largely predetermined elections.[1]

Social pressure and a desire for status have been shown to influence electoral turnout (Gerber et al., 2008), campaign donations (Sinclair, 2012), and participation in rallies (McClendon, 2014) in *competitive* democracies, but less is known about whether social norms of participation exist in semi-authoritarian systems.[2] A social norm of voting seems least likely to manifest where the legitimacy of elections and regimes is often questioned.[3] I propose a theory of social norms of voting that operates irrespective of citizens' sense of civic duty to the state, and demonstrate the influence of that norm in two electoral authoritarian states.

I propose that the social norm of voting arises out of citizens' belief that elections present an opportunity to access public goods. When patronage regimes reward high turnout areas with state resources (Carlitz, 2017; Baird et al., 2013), a consensus emerges among citizens that voting supports community development.[4] Since an individual's decision to vote is perceived to have positive externalities for her neighbors—who would similarly benefit from

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[1]A social norm is "a decentralized behavioral standard that individuals feel obligated to follow, and generally do follow, for the esteem reasons...or because the obligation is internalized, or both" (McAdams, 1997, 381).

[2]Scholars also refer to these types of systems as "electoral authoritarian" (Linz, 2000) or "competitive authoritarian" regimes (Levitsky and Way, 2002). Throughout the paper, I use these terms interchangeably.

[3]I adopt Tyler's (2006) definition of legitimacy as a "psychological property of an authority, institution, or social arrangement that leads those connected to it to believe that it is appropriate, proper, and just" (375).

[4]Patronage regimes are those in which government officials use "resources and benefits that flow from public office" to gain political support (Hicken, 2011, 295).

a state-provided school or clinic—community members monitor each other's turnout behavior and socially sanction abstainers.

I argue that individuals comply with these norms because of their reliance on fellow community members for information, kinship, and other social benefits, which I term "social dependency." Citizens who depend on their local community in this way vote to gain esteem and to avoid social sanctions from their peers. Social dependency helps to explain individual-level variation in compliance with the norm of voting, and has important consequences for citizens' social and political lives.

Using data from surveys and a lab-in-the-field voting experiment, I test the existence of a social norm of voting in two semi-authoritarian states in east Africa: Tanzania and Uganda. Tanzania is a useful initial test case because the high turnout in its national elections is not well explained by existing theories of clientelism, coercion, or ethnic politics.[5] This paper first presents nationally representative survey data and data from an original survey of rural Tanzanians to show that citizens hold beliefs, expectations, and attitudes consistent with a social norm of voting. Tanzanian citizens enjoy greater respect if they vote, and expect to incur social sanctions from their peers if they abstain. Second, I use a lab-in-the-field behavioral experiment to isolate and identify the effect that an audience of peers has on costly turnout decisions. I find that when turnout behavior is public to one's neighbors the probability that respondents will vote in the experiment increases by 11-13 percentage points, compared to when voting behavior is secret. I replicate the experiment and achieve similar findings in Uganda. The results are even more striking in Uganda given the greater vote buying and coercion around elections. Finally, I present data from both countries that suggest that individuals who are more *socially dependent* are more likely to comply with the social norm of voting.

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[5]In the most recent 2015 general election in Tanzania almost 70% of registered citizens voted (NEC, 2015).

This paper extends the comparative turnout literature and advances our understanding of why citizens vote. Building upon empirical work in the U.S. and filling a notable gap in the comparative literature, I highlight the role that local social norms play in motivating turnout in semi-authoritarian systems. Moving beyond the conventional paradigms of coercion and clientelism, I document an important, yet understudied, motivation for voting in developing democracies: a desire to avoid social sanctions.

The social norm of voting also helps account for the persistence of authoritarian regimes. Given that the norm operates in tandem with the regime's goals of high turnout in elections, the presence of a locally-enforced norm reduces the need for autocrats to engage in more costly strategies to encourage turnout, such as clientelism and coercion. Recognizing both citizens' material and *social* motivations to vote is critical for interpreting high turnout. While autocrats present high turnout figures as evidence of their popular mandate, this paper demonstrates that turnout may instead indicate *horizontal accountability* within local communities.

2 Participation in Elections with Foregone Conclusions

Elections in competitive-authoritarian regimes serve several purposes. They can deter defection to the opposition, create the semblance of democracy, allow the regime to identify stronghold and swing areas, and deter popular protest (Gandhi and Lust-Okar, 2009; Magaloni, 2006; Acemoglu and Robinson, 2005). Rulers often seek to maximize electoral support (Magaloni, 2006) and regimes actively try to motivate turnout in elections to try to increase their legitimacy among citizens and the international community (Bunce and Wolchik, 2006; Barkan, 2009). While a large literature focuses on the strategic incentives for autocrats to hold elections, this paper focuses on citizens' motivations to participate in those elections.

Although abstention offers a seemingly low-cost way for citizens to signal their dissatis-

faction with the regime and increase its cost of maintaining the facade of popular support, citizens often *choose* to cast their ballots even in non-competitive elections. Figure 1 displays turnout rates from recent national elections in countries across Africa. Average turnout, for both competitive democracies (left panel) and dominant-party states (right panel), is above 50 percent.

Figure 1: Turnout in recent national elections for competitive democracies and dominant-party states in Africa.
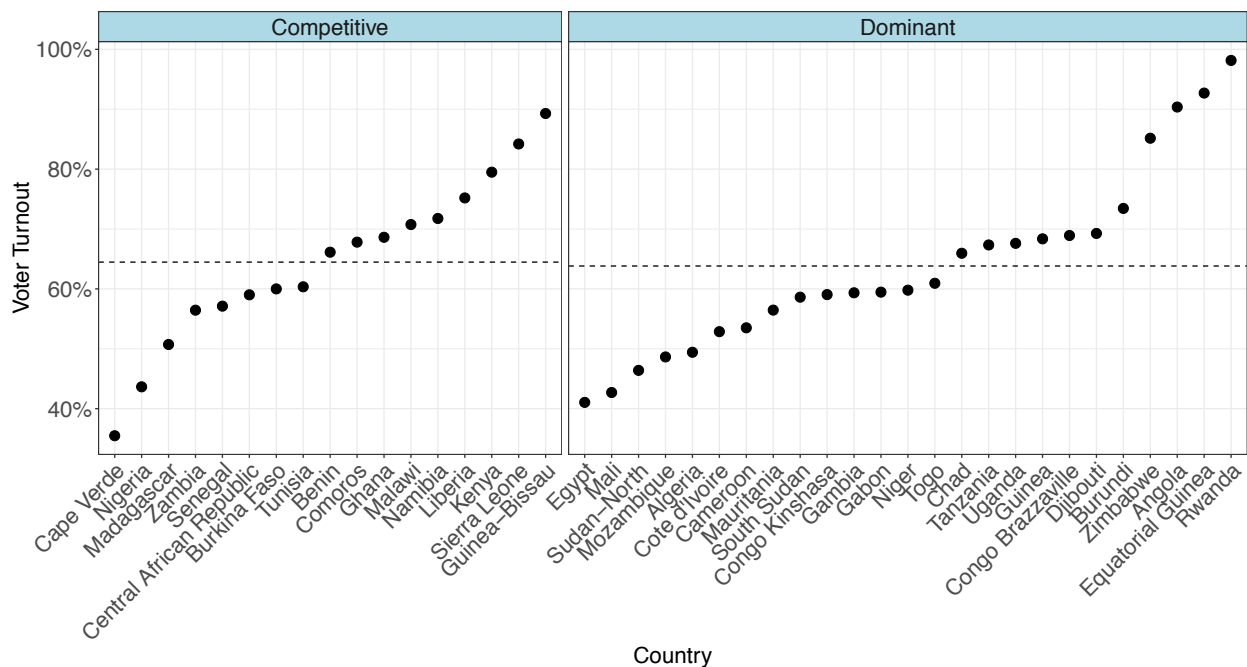
Note: Dotted lines show average turnout for each regime type—competitive democracies (left panel) and dominant-party states (right panel). Although regimes may manipulate these figures, increasing turnout to enhance their legitimacy, it is unlikely that the data are entirely fabricated. (Source: www.idea.int.)

Conventional paradigms suggest that citizens vote in semi-authoritarian systems either because they are induced with material incentives (Stokes, 2005; Nichter, 2008) or because they are compelled by force (Gandhi and Lust-Okar, 2009). Clientelism and coercion may have less influence in certain contexts. For instance, clientelist exchanges require an enforcement mechanism—usually state, party, or traditional intermediaries who ensure that voters who receive goods uphold their end of the bargain on Election Day (Baldwin, 2013). In

contexts of weak state capacity and poorly organized political parties, enforcement may be unfeasible. The presence of international election observers (Asunka et al., 2017), and the ubiquity of social media may also deter the state from employing such strategies.[6] Since regimes use elections to enhance their legitimacy, "naked repression" (Schedler, 2002, 36) risks thwarting this goal via reputational damage and demobilizing voters, as happened in former communist states (Bunce and Wolchik, 2006). Regimes that rely on foreign aid that is contingent upon holding free and fair elections, or hold elections with the primary purpose of enhancing their legitimacy, may refrain from employing illicit tactics that could jeopardize these goals.

The comparative scholarship that moves beyond clientelism and coercion to explain turnout mainly adopts a macro-level approach.[7] Scholars examine cross-national variation in turnout to explain the inverse correlation between socioeconomic status and turnout in developing democracies (Kasara and Suryanarayan, 2015; Kuenzi and Lambright, 2010). Kasara and Suryanarayan (2015) investigate the political preferences of the rich and suggest that when their preferences diverge from those of poor citizens, and when state capacity for tax extraction is high, the rich will be motivated to turn out. The authors explain why and when the rich vote but do not address incentives of the poor.

Theories that focus exclusively on material incentives fail to acknowledge that citizens have diverse interests beyond maximizing their material utility. To the extent that the comparative politics literature has examined social motivations to vote, it has focused on group-based, largely ethnic, identities (Ferree, 2006; Horowitz, 1985). Building upon the idea that voters derive an expressive benefit from voting to identify with a particular group, I suggest that turnout serves an instrumental purpose by demonstrating that an individual is

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[6]https://www.washingtonpost.com/news/monkey-cage/wp/2016/04/06/in-central-africa-citizens-are-using-social-media-to-build-democracy-heres-how/

[7]One notable exception is Letsa (2017) who uses a nationally representative survey in Cameroon to understand partisan-based expressive motivations to vote.

a caring and contributing member of the group. This paper broadens the scope of the types of groups that influence voting behavior in the developing world. While Ichino and Nathan (2013) show that citizens' local geographic area influences their vote *choice*, I demonstrate how a citizen's local community can also influence her decision to turn out.

This paper proposes that citizens participate in elections with foregone conclusions in order to comply with a local social norm of voting.[8] I argue that community members' shared reliance on government services stimulates a norm of voting. In patronage systems, regimes use the promise of club and public goods to encourage high turnout—to enhance their legitimacy among citizens and the international community. Smith and Bueno de Mesquita (2012) similarly theorize that governments will use "contingent prize allocation" rules to reward geographic areas demonstrating the greatest electoral support. Along these lines, Gottlieb and Larreguy (2015) find that Senegalese politicians target groups of voters with public goods, especially in villages that have a polling station where candidates can gather village-specific information on their level of support. Importantly, empirical research from Tanzania suggests that the government directs more water infrastructure (Carlitz, 2017) and social welfare funds (Baird et al., 2013) to communities with higher turnout.

When regimes allocate greater resources to high-turnout areas, citizens come to associate voting with community development. Citizens believe that communities with high turnout will be rewarded and view elections as an opportunity to acquire government goods.[9] This belief incentivizes individuals to monitor their neighbors' turnout since an individual's decision to vote has potential externalities for her neighbors.[10] Because local, geographically-

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[8]Rational choice scholars have similarly suggested that norms and altruism can motivate turnout (Feddersen, 2004; Feddersen and Sandroni, 2006), but do not explain individual-level variation in turnout, nor high turnout in non-competitive elections.

[9]The other side of the same coin is that citizens may fear being punished by the regime for low turnout. Depending on the regime, it may use the promise of material rewards or the threat of withholding or withdrawing such goods to motivate turnout.

[10]Coleman (1986) suggests that a social norm may emerge "when an action by one actor imposes externalities on other actors. When the externalities are positive, the demand is for a prescriptive norm, to encourage or induce the target action" (57).

bounded, communities share and jointly benefit from public goods, members have a collective interest in obtaining, and maintaining, government services. Thus, the social norm of voting will be context-specific to one's local community, evolving out of frequent and repeated interactions between community members (Bicchieri, 1990; Ullmann-Margalit, 2015).[11] Since politicians can more easily target public goods to rural communities, but cannot use the same strategy in dense urban areas (Ichino and Nathan, 2013), I expect the theory to manifest in *rural* communities in patronage systems.

With collective rewards, the monitoring problem associated with individual-level clientelist exchanges becomes a free-rider problem. To solve the collective action problem that elections pose within rural communities, citizens enforce these evolutionary norms with social sanctions. Rather than elite enforcement, community members horizontally monitor and sanction each other. Social sanctions can be tangible or intangible and range from social disapproval and negative attitude formation to ostracism (Brennan and Pettit, 2004; Hechter, 1988). I hypothesize that individuals vote on Election Day in order to comply with the social norm of voting, demonstrating their devotion to their local community, and to avoid social sanctions imposed by peers.

I also propose that the degree to which an individual relies on other members of her community—her *social dependency*—will influence her likelihood of complying with the social norm of voting. Local rural communities collectively produce benefits, such as social ties, as well as support and information networks. Individuals who are more dependent on the community face a higher cost of social sanctions and losing access to these benefits. The nature of an individual's dependency on their local community is likely influenced by the exclusivity of access to these non-material goods that local communities produce, and the availability of substitutes and alternatives (Hechter, 1988). Contrary to predictions from

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[11]For instance, Anoll (2018) documents varying norms of participation among different racial groups living in different community contexts in the U.S.

clientelist theories, my theory of social voting predicts that the most *dependent* individuals, rather than the poorest, will be more likely to turn out. This theory of social voting helps to explain the puzzle of why, and *which*, individuals vote in the presence of public good rewards.

This paper offers an additional explanation for high turnout in semi-authoritarian systems that highlights the importance of *both* group-level material incentives and individual social considerations. The theory is not mutually exclusive with existing theories of clientelism or coercion. Social dependency helps to explain individual-level variation in norm compliance (turnout) within poor rural communities, something that block voting and social norms studies often overlook. Understanding who votes, and why, has implications for government accountability and democratization. Parties and politicians need to know who votes in order to effectively target mobilization and persuasion strategies (Cruz, 2013; Hersh, 2015). Given the evidence that citizens who participate are better represented (Gilens, 2012) and policy makers are more responsive to "attentive publics" (Martin, 2003), it is also important to recognize who has voice in the system and who is left out.

3 Elections, Expectations, and Attitudes in Tanzania

I test the theory in Tanzania, a dominant-party regime in East Africa. Despite holding multiparty elections since 1994, Tanzania has been ruled by a single party, Chama cha Mapinduzi (CCM), since gaining independence in 1961.[12] Even with little uncertainty over Presidential electoral outcomes, turnout is consistently high. On average, 69% of registered citizens voted across the country's five national multiparty elections. In the 2015 general election, 67% of registered voters cast their ballots and President John Magufuli (CCM) won by 20 percentage points.

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[12]CCM got its current name when the party of independence TANU merged with the Zanzibar ruling party Afro-Shirazi in 1977.

In Tanzania, the ruling party cultivates an "unlevel" political playing field on which opposition parties are distinctly disadvantaged (Makulilo, 2012). Though CCM dominates the executive branch, opposition parties have managed to secure seats in the national assembly in some, mostly urban, districts.[13] Despite increasing competition, CCM maintained 74% of the Member of Parliament (MP) seats in the national assembly in 2015.[14]

Tanzania is a patronage regime where local administrative units rely on handouts from the central government (Hyden, 2005; Mmuya and Chaligha, 1994). Like elsewhere on the continent, MPs in Tanzania play an important role in the distribution of resources and are seen as instrumental in providing for the community (Tsubura, 2014).[15]

High turnout in elections in Tanzania presents an empirical puzzle given the lower levels of state coercion and vote buying. Other scholars have noted the puzzle that Tanzania presents given the endurance of the ruling party with low levels of overt force during elections (Levitsky and Way, 2010; Whitehead, 2012; Morse, 2018). Perhaps due to the country's reliance on foreign aid (Dill, 2013; Lofchie, 2014), the state's coercive apparatus has steered away from voter mobilization and instead toward elites. Though opposition candidates are frequently barred from holding campaign rallies, sometimes jailed, and even shot, "...Overt repression does not constitute the fundamental basis for the CCMs strong tenure" (Whitehead, 2012, 1103). Tanzanians also report lower levels of vote buying prior to elections than their East African neighbors.[16]

As discussed above, evidence indicates that the Tanzanian government rewards high-

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[13]Members of Parliament are elected in single member constituencies at the same time as presidential and ward councilor candidates.

[14]This number does not include special seats for women and those nominated by the president.

[15]The theory speaks to both a regime-level and constituency-level strategy of rewarding high turnout areas with greater public goods at two different stages, the allocation of budgets from the center to the districts and then within districts where MPs have discretion over dividing the resources among smaller administrative units.

[16]On average, about 13% of Tanzanians report being offered a gift, compared to 33% of Kenyans and 41% of Ugandans (Afrobarometer, 2013). It is impossible to say whether these numbers reflect true levels. Instead, the difference could, for example, be due to variation in reporting norms or levels of social desirability bias.

turnout areas with greater resources (Carlitz, 2017; Baird et al., 2013). This targeting is most probable in rural Tanzania, where 68% of the population resides, and where a social norm of voting likely drives turnout. Tanzania shares key characteristics with other semi-authoritarian states, including patronage politics, a large public sector, and high electoral turnout despite decades of single-party rule.

Crucially, a social norm of voting is plausible in Tanzania because turnout is observable. While the secret ballot renders observing vote *choice* difficult, in rural elections turnout is quite visible. First, weeks before the election in Tanzania the list of registered voters is posted on the wall of government offices and schools that serve as polling stations. Prior to Election Day, citizens come to check that their name appears on the registration list, which are frequently not ordered alphabetically.[17] Second, on Election Day voters frequently have to wait in line for hours, giving community members ample opportunity to see each other. Some villages only have a single polling station, so everyone congregates in the same area on Election Day. Finally, voters' fingers are dipped in indelible ink to prevent duplication. Akin to the popular 'I voted' sticker in the U.S., citizens proudly display inked fingers or hide clean fingers (Ferree et al., 2018). These characteristics of rural elections allow community members to monitor who among them voted, and to enforce the norm.

3.1 Survey Data

In the presence of a social norm, individuals have particular expectations about the behavior and beliefs of others (Bicchieri, 1990). Specifically, if a social norm of voting exists, citizens should believe that most community members *will* vote in elections (empirical expectation) and believe that others think that everyone *should* vote (normative expectation). These ex-

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[17]It is with good reason that citizens want to verify that their name appears on the list before Election Day. In the 2015 general election, 27% of observers from 5770 polling stations in Tanzania reported that their polling station had voters' names missing from the voter registry. Moreover, 22% of observers reported that 1-5 people at their polling station were not allowed to vote because their name did not appear on the registry, despite the fact that they had a valid voter's ID card. (http://mtega.com/category/politics/page/2/)

pectations are essential indicators of the existence of a social norm of voting, and distinguish it from convention or habit (Bicchieri, 2005).

I draw on three different surveys to demonstrate that Tanzanian citizens hold norm-consistent expectations: 1) an original survey that I conducted a couple weeks after Tanzania's 2015 general election, with 1150 randomly sampled respondents from 84 randomly selected rural villages in three regions of Tanzania (Kilimanjaro, Mwanza, and Mbeya), 2) the nationally-representative Afrobarometer survey conducted in Tanzania in 2014, and 3) a nationally-representative phone survey conducted by a local NGO a few days prior to the 2015 general election.[18]

To establish the feasibility of the theory, I show that citizens associate voting in elections with obtaining government resources. Among respondents from my original survey, 85% agree that voting helps the community. Of those who responded in the affirmative, about 30% specifically mention that voting helps the community by bringing development and 56% say that voting brings "good leaders" who will help the community. The belief that voting can lead to community-level rewards produces a consensus within the group that people who vote, and try to help the community access government resources, are worthy of esteem and those who abstain deserve rebuke.

Rural Tanzanians also have empirical expectations indicative of a social norm: they believe that most community members vote in elections. Two weeks after the 2015 general election, I asked respondents what percentage of the community they think voted on Election Day. On average, respondents thought that 85% of the community cast ballots. This estimate is higher than actual voter turnout, nationally (67%) and in the rural villages surveyed (74%).[19]

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[18]Although the villages randomly sampled in Tanzania are not nationally representative, they are representative of rural villages in the three selected regions. I purposefully selected these three regions due to their variation in political competition, to probe whether the norm operates similarly in ruling party strongholds, opposition strongholds, and more competitive subnational areas within dominant-party states.

[19]Since the government does not centrally collect or report village-level electoral results I collected these data at village and ward administrative offices, and regional offices of the leading opposition party. I was only able to obtain turnout data for 38 villages in the sample, but do not believe that the availability of data

Evidently, citizens *believe* that a large majority of their community votes in elections.

In the presence of a norm, citizens will also hold normative expectations and think that their peers believe that everyone *should* vote in elections. While I do not have direct survey evidence about individual's thoughts on others' beliefs, the nationally representative Afrobarometer survey reveals that an overwhelming majority of Tanzanians (82%) believe that good citizens should *always* vote in elections.[20] Given frequent interactions among neighbors in rural communities, it is likely that the consensus that voting is good is widely known. These survey data, revealing that Tanzanians both expect others to vote and believe voting is good, provide initial indication of a social norm of voting.

3.2   Voting is Rewarded and Sanctions are Anticipated

In addition to holding empirical and normative expectations, in the presence of a social norm of voting, *citizens will reward norm-complaint behavior (voting) with esteem and socially sanction non-compliance (abstaining).* Status and sanctions are the currency of social norms (Cheng et al., 2014). Since communities lack material rewards for citizens, they will use the inducement of social approval and the threat of social sanctions to motivate compliance with the social norm of voting.[21]

On a representative phone survey conducted just a few days prior to the 2015 general election in Tanzania, respondents were asked how much they would respect someone who engaged in a variety of activities, including voting.[22] Figure 2 displays the changes in level of respect for someone that engages in the activity listed on the vertical axis, compared to

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is particularly biased (see discussion in the Online Appendix).

[20] The question asked respondents whether a good citizen should vote in elections *always*, *never*, or *only if they choose to*.

[21] Rural community resources are minimal and generally non-excludable. For example, it would be difficult for community members to sanction individual abstainers by excluding them from non-excludable public goods.

[22] More information on the representative phone survey is available in the Online Appendix and at this website: http://www.twaweza.org/go/sauti-za-wananchi-english.

Figure 2: Respect for activities compared to voting (Sauti representative survey, October 2015)
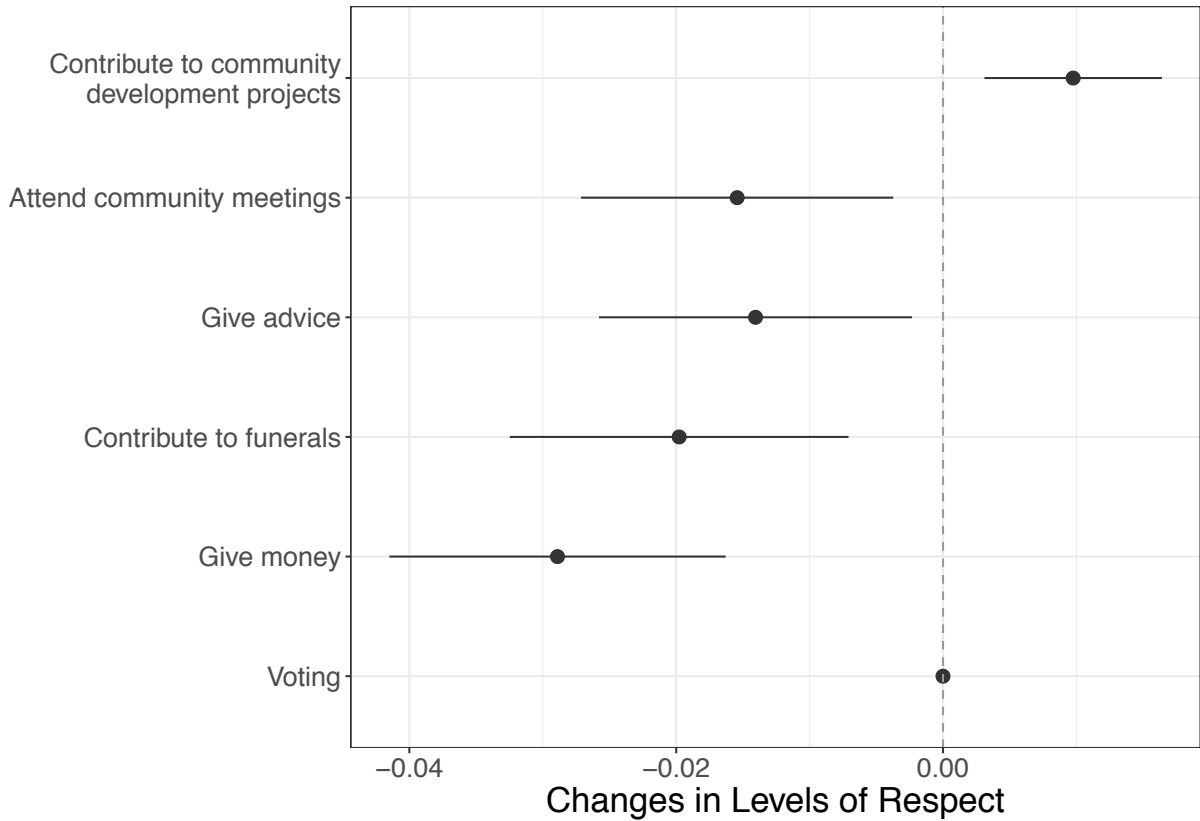
Note: This plot displays coefficients from a linear regression model of the level of respect (normalized from a 0-10 scale) on the target activities, with voting in elections used as the reference category. Standard errors are clustered by respondent.

respect given to voters. Estimates to the left (right) of the zero line indicate that those actions are less (more) respected than voting.

Among all of the items, contributing to community development projects is the only action that is awarded more respect than voting in elections. This ranking makes sense given that contributing to community development projects directly benefits the community, while voting is seen to have an indirect and probabilistic influence on community welfare. Respect for voting and contributing to development projects are highly correlated (with a Spearman's rank correlation coefficient of .86, p-value < .001), and load on the same factor (see the Online Appendix), suggesting that citizens consider these to be similar actions.

As well as rewarding voters with respect, citizens should also socially sanction abstainers if a social norm exists. Social sanctions tend to be particularly strong in cases of high-compliance equilibria—where most people comply with the social norm most of the time (Brennan and Pettit, 2004; Benabou and Tirole, 2011). Given that turnout in Tanzania's national elections is regularly above 50%, I expect social sanctions to play a particularly powerful role in driving turnout.

Conversations with rural Tanzanians indicate that abstainers indeed face ridicule, scorn, and even social ostracism from their peers. In rural Mwanza in north-western Tanzania, one woman revealed that many people in her community would criticize someone who does not vote. She said that community members believe that such individuals deserve to be thought of differently because "they are pushing back development."[23] Another woman in the same district, similarly reported that residents in her community speak badly about abstainers behind their back.[24] As a farmer in Mwanza told me, if he did not vote his peers would not necessarily display their true feelings toward him but instead "would keep it at heart."[25]

A particularly important social sanction in the Tanzanian context is that if you do not vote, you cannot complain. An elderly woman in Mwanza told me,

> "If you don't participate [vote] people will think you don't care...If you don't vote you don't have the right to ask questions."[26]

Reflecting how his friends and family would react if they knew he did not vote in the election, a taxi driver in Arusha said:

> "They will behave in a way that you will see their anger. For example, if I complain of shortage of water they will sarcastically laugh at me and tell me if I

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[23]Interview, Mwanza, December 13, 2016.
[24]Interview, Mwanza, December 14, 2016.
[25]Interview, Mwanza, December 11, 2016.
[26]Interview, Mwanza, February 23, 2015.

knew I needed water why then didn't I vote?"[27]

To further investigate these sentiments, I asked survey respondents to share their opinions of abstainers. In my original survey to the open-ended question, "what do you think about someone who does not vote on election day?," a majority (73%) of respondents indicated negative opinions of abstainers.[28] These responses also reveal that abstainers are viewed negatively because they are perceived to not care about the community.

Rural Tanzanians interpret abstaining as a personal affront to the community. One respondent stated that an abstainer, "does not care for her community" and another commented that he or she "must be mentally ill. The people, we want development, and he does not show cooperation."[29] Interviews and survey responses reveal that citizens associate voting with bringing development to the community and hold negative opinions about abstainers who are seen as obstructing the community's movement toward this goal.

Further evidence that most citizens expect their peers to hold negative attitudes about abstainers comes from the nationally representative phone survey, in which a majority of Tanzanians say that they expect to face negative repercussions if they abstain in elections. Specifically, respondents were asked, "Say you didn't vote in the October 25th general election. If people in your community learned that you didn't vote how would they react?" Respondents were read a list of six items and were asked to say whether it was 'true' or 'false' that people in their community would react that way for each item. Figure 3 shows the percent of respondents who report 'true' for each reaction, grouped by age cohort. The reaction items are listed on the vertical axis from least severe on the bottom ("act normally") to most severe ("blame me for bad leaders").

In the context of a socialized or learned norm of voting, older community members should

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[27]Interview, Arusha, January 6, 2014.

[28]I coded the sentiment of the open-ended responses as either positive, negative, or neutral.

[29]Since there is no gender in Swahili, these quotes could refer to either a male or female. In the English translation I picked "he" or "she" for ease of reading.

Figure 3: Expectations of how peers would react if they found out that the respondent did not vote - by age group (Sauti representative survey, October 2015)
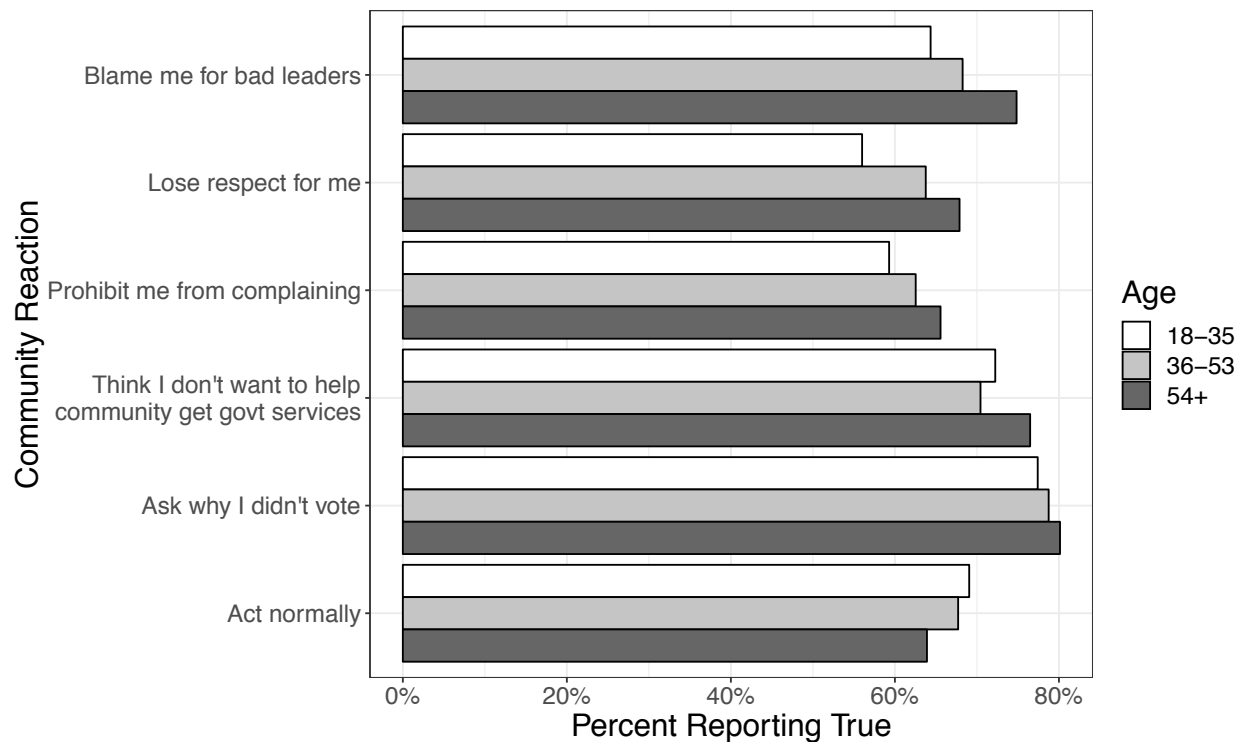
have greater knowledge of the norm and the potential sanctions for abstaining given their longer experience with elections and more numerous interactions with other community members. Interestingly, for the four most severe sanctions a greater percentage of older Tanzanians report that their peers would react this way, compared to younger cohorts. This positive relationship between age and perceptions of community sanctions is reversed, however, for the neutral item that others would "act normally." Instead, younger Tanzanians are more than likely older citizens to believe that their peers would act normally toward them if they did not vote.

The fact that a majority of Tanzanians report that their neighbors would act normally toward them initially seems inconsistent with a majority believing that their peers would hold negative opinions of them and blame them, but these reactions are not mutually exclusive. As the interviews reveal, community members can 'hide their true feelings' and act normally

toward abstainers while internally affording them less respect or holding negative opinions of them.

These nationally representative data show that a majority of Tanzanians believe that other community members would react negatively if they abstain—would blame them for bad leaders, lose respect for them, and prohibit them from complaining. Almost 80% of Tanzanians anticipate being asked why they abstained. This reaction speaks to citizens' expectations that their peers will monitor their turnout behavior, which can be a powerful motivator. For example, DellaVigna et al. (2016) find that the expectation of being asked about past voting behavior increases turnout in a US congressional election by two percentage points.

Collectively, the survey data demonstrate that community members hold norm-consistent expectations, believing that other community members will vote and that voting is considered a "good" thing to do as it can help community development. Voters are respected and Tanzanians, especially older citizens, anticipate being socially sanctioned if they abstain. The presence of esteem rewards and social sanctions provides a compelling rationale for why individuals would comply with a social norm of voting. The next section builds upon this descriptive evidence and describes results from a lab-in-the-field behavioral experiment.

4 Voting to Avoid Social Sanctions

Ideally, to validate the theory, we would observe individuals who abstain in real elections subsequently being sanctioned by their peers. Because abstention is rare in high-compliance equilibria and social sanctions are often intangible, identifying the influence of the social norm with observational data is difficult. To overcome this challenge, isolate key variables, and complement the survey data with causal estimates, I designed a lab-in-the-field voting experiment to manipulate the salience of a social norm of voting and observe resulting

turnout behavior.

The experiment was conducted in Tanzania two weeks after the 2015 general elections, and included 1150 randomly sampled respondents in 84 randomly sampled rural villages across Mwanza, Mbeya, and Kilimanjaro regions.[30] Respondents were surveyed before and after participating in the lab-in-the-field experiment. The proximate timing of real elections and the location in participants' own communities enhanced the realism of the experiment.

4.1 Experimental Design

Studying social norms in the laboratory requires activating the norm by signaling to subjects that the norm applies in that particular context. The survey evidence reveals that Tanzanians believe that voting serves the community's interest because turnout (indirectly and probabilistically) contributes to community development. Given this association, I framed a public goods game as a hypothetical election to study the existence of a social norm of voting.

Using a conjoint design, I presented respondents with hypothetical candidates for the Member of Parliament (MP) seat in their constituency (Hainmueller et al., 2014). To enhance the realism of the experiment, the hypothetical MP candidates shared common attributes with real politicians. Six different candidate attributes were depicted using images to improve comprehension.[31] Each respondent was presented with six pairs, or 'rounds', of candidates.[32] Although this paper does not examine how candidate characteristics influence vote *choice*, the conjoint setup was crucial in order to mimic a real election and offer respondents viable choices so they could decide whether or not they wanted to vote in the presence

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[30]The experiment was part of a panel study. This paper uses data from the second wave of the panel, but analyzing data from the first wave produces consistent results which are presented in the Online Appendix.

[31]See the Online Appendix for hypothetical candidate attributes and image representations. Tools to implement conjoint designs with images are available at Meyer and Rosenzweig (2016).

[32]The following analyses largely focus on data from the first round. I conducted six rounds to examine how norms can change in the context of group play over the course of the six rounds. This analysis is the focus of other work.

of alternatives, as they would in a real election.

In the experiment, respondents had the option to vote for either of two hypothetical candidates or they could abstain. In order to avoid 'cheap talk'—respondents voting because it is easy and costless—voting was costly. This cost was also meant to represent the cost of travel and time when voting in real elections. To begin, the enumerator explained the rules and gave each respondent 5000 Tanzanian Shillings (about \$2.50, equivalent to a day's wage in the average village in our sample) for their participation. Respondents were informed that this was their money to keep but any money that they chose to spend on votes would be donated to the school or the clinic in their community.[33]

The experiment was not designed to test the idea that the social norm of voting arises from citizens' anticipation of public goods rewards for high turnout, to which survey data allude. Rather, the purpose of the experiment was to test the influence of social considerations and anticipated social pressure to vote, indicative of a social norm of voting.

To isolate the effect of a social norm of voting, respondents were randomly assigned to experience the hypothetical election in one of two conditions—public or private. Since "publicity, understood as audience size, is the fuel of the economy of esteem" (Brennan and Pettit, 2004, 158), any desire for status and aversion to sanctions would be activated in the presence of an audience. If there is a norm of voting, and individuals expect others to vote and to believe that everyone should vote, turnout should be higher when it is public to one's peers. By manipulating the visibility of the target action of the norm, as other studies have done (McClendon, 2014), I compare the likelihood of compliance when behavior is observable, compared to when it is secret.

In the public condition respondents participated with four other villagers. The group

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[33]Having respondents play a standard public goods game would have been one approach, but such a design would not directly relate to the specific act of voting. An election-like setup was required to target the real-world behavior of interest, voting. Hainmueller et al. (2015) find that conjoint experiments can recover estimates very close to a real-world behavioral benchmark when the experimental task closely resembles the real-world action.

of five respondents sat together in a circle and were presented with the same hypothetical candidate profiles. After the enumerator described the candidates, respondents discussed the candidates amongst themselves. The enumerator would then ask respondents to simultaneously hold up index cards to indicate whether they wanted to vote for candidate "A" or "B". If the respondent wanted to abstain they would not hold up a card. Participants could easily observe if and how everyone else voted.[34] The enumerator would then collect money from those who voted in that round.

In the private condition respondents were surveyed alone in their home and voted or abstained secretly using a paper ballot. After the enumerator explained the candidate profiles, they momentarily left the room and allowed respondents to vote or abstain in private. The respondent would fill out their paper ballot and insert it, along with money if they decided to vote, into an envelope. In this condition, not even the enumerator was privy to the respondent's turnout behavior. See Meyer and Rosenzweig (2016) for how this was implemented and open source tools to produce similar experimental designs in developing country contexts.

While a traditional rational actor framework predicts that participants will abstain, free-riding on others' contributions to the public goods, a social theory of voting posits that participants will be more willing to incur an individual cost to vote when it is possible for others to observe their behavior. Participants will be more willing to deviate from the social norm (abstain) when their peers are not privy to their actions and they do not face any threat of social sanctions. Hence, if a social norm of voting exists, turnout should be higher

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[34]Contrary to real elections, in the experiment vote choice was also public because the partner organization that I collaborated with on this project also wanted to understand how citizens evaluate candidates and deal with conflicting political preferences. The fact that vote choice was also public actually may have increased abstention rates in the public condition—compared to what they would have been if turnout was public but vote choice was secret—because voters may have preferred to abstain rather than select their preferred candidate if they were in the minority. Along these lines, data from Sweden indicate that turnout increased after the introduction of the closed-ballot elections, compared to what is was with roll call votes in town hall meetings (Hinnerich and Pettersson-Lidbom, 2014). The Online Appendix discusses this topic in greater detail.

in the public condition compared to the private condition. This is indeed what I find.

4.2   Public and Private Voting

In order to compare behavior in the public and private conditions, we must account for the fact that the experimental treatment in the public condition changes after the first round. After the first round, a public group participant is simultaneously treated by the public treatment assignment *and* the abstaining or voting behaviors of the other group members. In other words, a subject's unobserved heterogeneity in potential outcomes can bias estimates of the average treatment effect (ATE) of the public condition after the first round (Green and Tusicisny, 2012). Laboratory studies suggest that subjects initially default to social norms they deem appropriate for the situation, but then adjust their expectations about whether the norm applies in the situation after observing others' behavior (Bicchieri, 2005). For these reasons, I use public turnout behavior only in the first round to obtain an unbiased estimate of the ATE of the public treatment, compared to the private.[35]

Comparing turnout in the public and private conditions, participants are between 11 and 13 percentage points more likely to incur an individual cost to vote when their turnout behavior is visible to their peers, as shown in Table 1. These treatment effects are calculated using linear regressions that include village and enumerator fixed effects.[36] Although there is not the same challenge in estimating an unbundled ATE in the private condition, as a robustness check I subset the data to include only the first comparable round for *both* the

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[35]The cost of voting at times differed between the public and private conditions. In the public condition voting cost 200 Tsh (about 4% of a day's wage), while voting cost 100 Tsh in the private condition. Costs varied to contextualize the public-ness of the treatment, by having a higher cost to represent the cost of waiting in line at a crowded polling station. In the second half of the game (rounds 4 to 6), the cost of a vote increased from 200 Tsh to 500 Tsh in the public condition and from 100 Tsh to 200 Tsh in the private condition. When comparing respondent behavior in the public and private treatment conditions, I use data from rounds when the cost of voting was equivalent in the two conditions: the first round of the public condition and rounds 4-6 in the private condition.

[36]Tables comparing the distribution of variables across respondents in different treatment conditions are provided in the Online Appendix.

Table 1: Public treatment effects in Tanzania

| | *Dependent variable:* | | | |
| | Vote | | | |
	(1)	(2)	(3)	(4)
Public	0.107**	0.125**	0.125**	0.111*
	(0.038)	(0.040)	(0.043)	(0.049)
Village FE	✓	✓	✓	✓
RA FE	✓	✓	✓	✓
Controls		✓		✓
DV mean (private)	0.71	0.71	0.7	0.71
DV std. dev (private)	0.45	0.45	0.46	0.46
Observations	1,492	1,138	860	670
R^2	0.259	0.316	0.435	0.484
Adjusted R^2	0.216	0.255	0.374	0.401

Note: †p<0.1; *p<0.05; **p<0.01. Models 1 and 2 include all comparable rounds of the private condition (rounds 4-6) and only the first round of public data. Models 3 and 4 use only the first round of comparable data from both the public and private conditions. Models 2 and 4 include standard controls: age, sex, education, religion, partisanship, and whether or not the respondent has a source of income. In all models, standard errors are clustered by respondent for the private condition and by group for the public condition.

private and public conditions, presented in models 3 and 4 in Table 1. Adding controls, in models 2 and 4, increases the predictive power of the model, as well as the estimated treatment effect of the public condition. All of the models indicate a strong positive effect of the public treatment on turnout.

As a point of reference, in their canonical study of social pressure to vote in the US, Gerber et al. (2008) find that sending a mailer informing citizens that their neighbors will be able to observe their turnout behavior increases the probability of voting by 5 percentage points. In this experiment, actual monitoring by neighbors—rather than the threat of observation—is even more powerful on costly experimental turnout.

The effect of an audience of peers on turnout is particularly striking given the high baseline turnout rates in the private condition. The fact that 71% of private respondents vote in

the experiment likely indicates that they have internalized the social norm of voting. When norms are internalized sanctions become irrelevant because individuals are instead motivated by the guilt or shame they feel if they deviate from the norm, regardless of whether others are aware (Bicchieri and Muldoon, 2014). Random assignment of the treatment ensures that the distribution of respondents who have internalized the norm is equivalent (in expectation) across the public and private conditions. The difference in voting rates between the public and private treatments can therefore be attributed to the presence of peers in the public condition and respondents' resulting desire for status and fear of sanctions.

4.3   Social Ostracism

The substantively large and statistically significant difference in public and private turnout behavior in the experiment indicates the existence of a social norm of voting, but does not reveal whether individuals are motivated to vote out of a desire for esteem, an aversion to sanctions, or both. To test whether social sanctions motivate turnout, I included an additional experimental condition among some public groups to mimic real-world social ostracism faced by abstainers. Since intangible sanctions, such as social disapproval, cannot be easily controlled in a laboratory setting, I designed the social ostracism treatment to target an immediate and tangible sanction that a majority of Tanzanians expect to experience if they do not vote—prohibition from complaining (see Figure 3).

Half of the public groups were randomly assigned to the social ostracism treatment condition, where participants who abstained had to turn their back to the group and were prohibited from engaging in the discussion in the next round. The ostracism treatment further heightens the salience of the social norm of voting by inducing an immediate and tangible punishment for abstaining. If this kind of social sanction had no bearing on individual behavior, then turnout decisions would not be influenced by participants having to turn their chair around and be excluded from the discussion. Conversely, if a norm of voting

exists and individuals want to avoid social sanctions, then social ostracism should *increase* the likelihood that respondents vote.

Table 2: Social ostracism treatment increases turnout in Tanzania

	Dependent variable:	
	Vote	
	All rounds	Rounds 2-5
	(1)	(2)
Social Ostracism	0.092†	0.115*
	(0.048)	(0.051)
Village FE	✓	✓
Round FE	✓	✓
DV mean (control)	0.58	0.53
DV std. dev (control)	0.49	0.5
Observations	2,666	1,792
R^2	0.328	0.326
Adjusted R^2	0.316	0.308

Note: †p<0.1;*p<0.05;**p<0.01. The data included in these models is from the subset of 44 villages that had one control group and one social ostracism group because the social ostracism treatment was not block randomized at the village level but instead randomized on tablets at the group level. Model 1 includes all rounds and Model 2 analyzes only rounds 2 through 5. All standard errors are clustered at the group level.

Table 2 shows that social ostracism increases participants' probability of voting by between 9 and 12 percentage points, depending on the model. Here, data from all rounds are used since in the first round no one has actually experienced any sanctions and may not have even fully understood the rules of the game yet. The second model in Table 2 uses data from rounds 2 through 5 to check the strength of the results because in the first round no one had yet had the opportunity to be ostracized or witness the social sanction and because abstainers in the last round cannot be sanctioned. These results suggest that the social cost of not being allowed to participate and engage with peers outweighs the financial cost of voting. Social sanctions appear to be a powerful motivator in this context.

Results from the social ostracism treatment also help to rule out an alternative explanation

for the difference in public and private turnout rates—reciprocity towards the enumerator in the public condition. If reciprocity toward the enumerator who, unlike in the private condition, remains present while participants vote was driving public group turnout, we would not expect the social ostracism treatment to further increase turnout. This treatment provides insights into the mechanism driving norm compliance. Social sanctions significantly influence turnout behavior, providing further evidence of the presence of a social norm of voting.

4.4   Validity Concerns

Although the experiment approximates several aspects of voters' experiences on Election Day, there are a few limitations of the design. First, in the public condition vote choice is also observable. The fact that vote choice is visible to peers in the public group is a departure from the reality of voting in elections in Tanzania.[37] Though unrealistic, public vote choice is unlikely to have biased the experimental results. Specifically, it would be particularly problematic if visible vote choice somehow inflated turnout rates in the public condition, compared to what they would have been had vote choice been secret. Because vote choice had no material consequences for respondents, whose outcomes were independent of the "results" of the hypothetical elections, it is unlikely that this feature of the experiment dramatically inflated turnout rates.[38]

Second, voting in the experiment is immediate. In reality, voting happens over the course of a day so community members can plausibly deny that they abstained by claiming they voted at a different place or time than their neighbors. Similarly, real-world abstainers can offer excuses, such as illness, for why they did not cast their ballot. The experiment does not

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[37]The secrecy of vote choice, however, is not guaranteed in many contexts. Even in countries typically thought to have strictly-enforced secret ballot regulations, vote choice is sometimes visible to one's peers. For instance, U.S. voters have recently been taking "ballot selfies" and posting photos of their marked ballots on social media where it is visible to their peers (https://en.wikipedia.org/wiki/Ballot_selfie).

[38]This issue is further discussed in the Online Appendix.

allow for these kinds of justifications, which may increase turnout. However, as previously described, turnout in Tanzania is visible and verifiable even after Election Day due to the presence of indelible ink on voters' fingers, making it difficult for abstainers to claim that they voted.[39] While the inability to offer justifiable excuses for abstention in the experiment might increase the estimates of the influence of the social norm of voting, other aspects of the design likely contribute to underestimation of the true influence of the norm.

For instance, another difference in the experiment is the size of the audience. In the public groups only four neighbors observe experimental turnout decisions, whereas in real elections there is often a much larger audience of community members. The experiment may therefore represent a lower bound estimate of the effect of an audience on turnout since the probability of norm compliance increases with audience size (Brennan and Pettit, 2004).[40]

As with any experiment, external validity is an important consideration. Although I do not have micro-level observational data or a natural experiment that would allow me to test the theory by manipulating the observability of turnout in the real world, I do have nationally representative survey data from Tanzania and experimental results from Uganda that provide some evidence that the theory applies beyond the experiment and initial test case.

The experimental design relies on the idea that a community-wide consensus that voting is good and belief that others think everyone should vote will make citizens reluctant to abstain in front of their peers. The same logic applies to individuals' willingness to admit

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[39]The visibility of voter turnout varies across villages. In those with a single polling station, everyone must gather at the same place on Election Day, limiting plausible deniability. The Online Appendix includes an analysis of 2015 electoral data, which suggests that turnout was higher in villages with a single polling station compared to those with two, where monitoring turnout is more challenging.

[40]In some of the public groups there were fewer than five participants due to attrition. Analyzing the relationship between the size of the public group and turnout rates reveals a positive association. Although attrition is not an exogenous source of variation in group size, it is likely orthogonal to the voting behavior of the remaining group members. Specifically, moving from a group of three to a group of five participants is associated with a 24 percentage point increase in the group turnout rate, which is statistically significant at the conventional level (details are provided in the Online Appendix).

that they abstained on a survey. Self-reported voting behavior, however, is plagued with issues of social desirability bias. In particular, respondents may be reluctant to admit that they abstained out of fear of what the *enumerator* might think of them, rather than because there is a social norm.

However, the same type of social desirability bias *in front of peers* is exactly the type of bias we would expect in the presence of a norm. I use the fact that the Afrobarometer survey asks enumerators to note whether other people were present during the interview to isolate response bias in self-reported turnout due to the presence of peers, from that driven by the enumerator. The self-reported turnout rate of Tanzanians answering in the presence of others (87%) is higher than that reported by respondents alone with the enumerator (83%), and the difference in means test has an associated p-value of .054 (Afrobarometer, 2013).[41] Though there may be other reasons why respondents would hesitate to admit that they abstained in the presence of their peers, these nationally representative data are consistent with the existence of a social norm of voting in Tanzania.

To address questions of generalizability beyond Tanzania, I replicated the experiment in neighboring Uganda. Uganda is a semi-authoritarian state and presents a harder test for the theory because vote buying and coercion are pervasive during elections (Conroy-Krutz and Logan, 2012). Immediately following Uganda's February 2016 general elections the same public-private experimental protocol was implemented in 62 randomly selected rural villages with 885 randomly selected respondents.[42] Similar to Tanzania, a single party, the National Resistance Movement (NRM) has dominated Uganda since 1986 when, current President, Yoweri Museveni first took office, despite holding multiparty elections since 2006. In the February 2016 general election, Museveni was reelected with a 25 percentage point margin.

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[41]The question that Afrobarometer enumerators record asks: "Were there any other people immediately present who might be listening during the interview?" Enumerators can choose one out of five options: No one, Spouse only, Children only, A few others, or Small crowd. I code no one present if the enumerator selected 'no one' or 'children only'. All other options are coded as 'someone present'.

[42]Unfortunately, I was not able to also replicate the social ostracism treatment in Uganda.

Parliamentary elections in Uganda are somewhat more competitive, and in 2016 opposition parties won almost 30% of the Parliamentary seats.

Figure 4: Private and public voting in Tanzania and Uganda
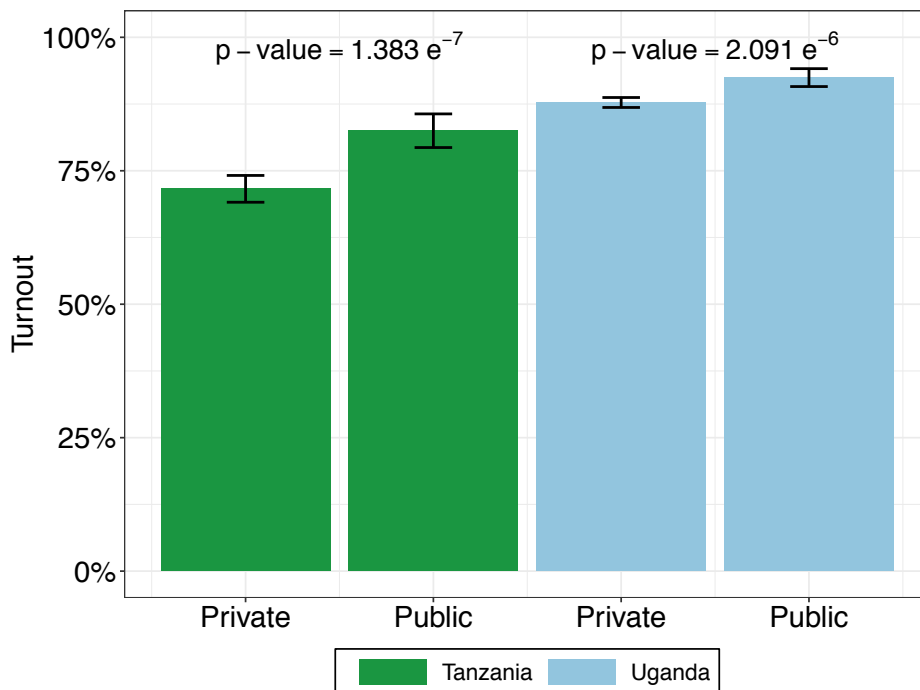
Note: Turnout included in the graph are from the first round in the public condition and all comparable rounds in the private condition (rounds 4-6 in Tanzania and rounds 1-6 in Uganda). Average turnout in Tanzania is 71.1% among private respondents and 82.7% among public respondents. In Uganda, turnout among private respondents is 87.7% and 92.9% among public respondents.

The results from Uganda are consistent with those from Taznania. Figure 4 shows that turnout is about 5 percentage points higher in the public condition compared to the private in Uganda. The results hold when data are analyzed using linear regression models with village and enumerator fixed effects, as well as controlling for age, sex, education, partisanship, and income. On average, experimental turnout is higher in Uganda compared to Tanzania, with 88% of private respondents voting across all six rounds and 93% of public respondents in the first round.

The fact that the experimental results replicate in another context are encouraging.

Though these data do not speak to the external validity of the experimental design, they do signal that the theory and results are not unique to Tanzania and suggest that a social norm of voting can operate even in the presence of a more authoritarian and coercive regime.

5   Explaining Individual-Level Variation in Turnout

Which citizens vote in elections is an important democratic question. The theory posits that individuals who are more reliant on the community—for information, kinship ties, or other social benefits—will be more likely to comply with the social norm of voting, in order to secure their access to community-produced goods. Since social dependency is likely multidimensional, I use both an open-ended subjective question and an index of objective items to measure it.

To assess respondent's own perceptions of their reliance on others, in the baseline survey respondents were asked to indicate how much they feel like they depend on other people in their community.[43] Opposition party supporters in Tanzania and respondents with enough income to support their family in Uganda report that they rely less on others in their community. After the experiment, I returned to a few sample villages in Tanzania and asked respondents how they had interpreted this question. Respondents said they thought about relying on other community members for help caring for their children, as well as for advice, information, and cooperation.

I also measure social dependency using an *objective* index. The index includes five items: the respondent's marital status, number of children, whether or not they were born in the community, their frequency of travel outside of the village, and the presence of family outside of the village. These items capture how costly it would be for an individual to face social

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[43]The exact question wording used in Tanzania was: "On a scale from 0-10 how much do you depend on other people in this community? Zero means you're not dependent at all and 10 means you're completely dependent." In Uganda, a five-point scale was used.

Figure 5: Social dependency and experimental voting

(a) Tanzania
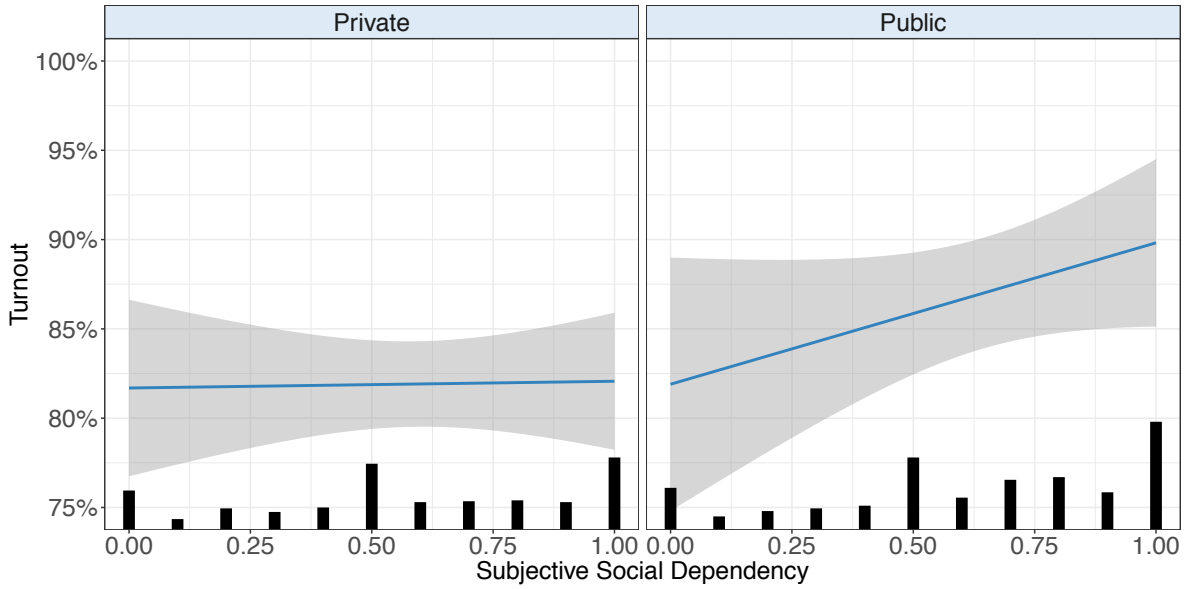
(b) Uganda
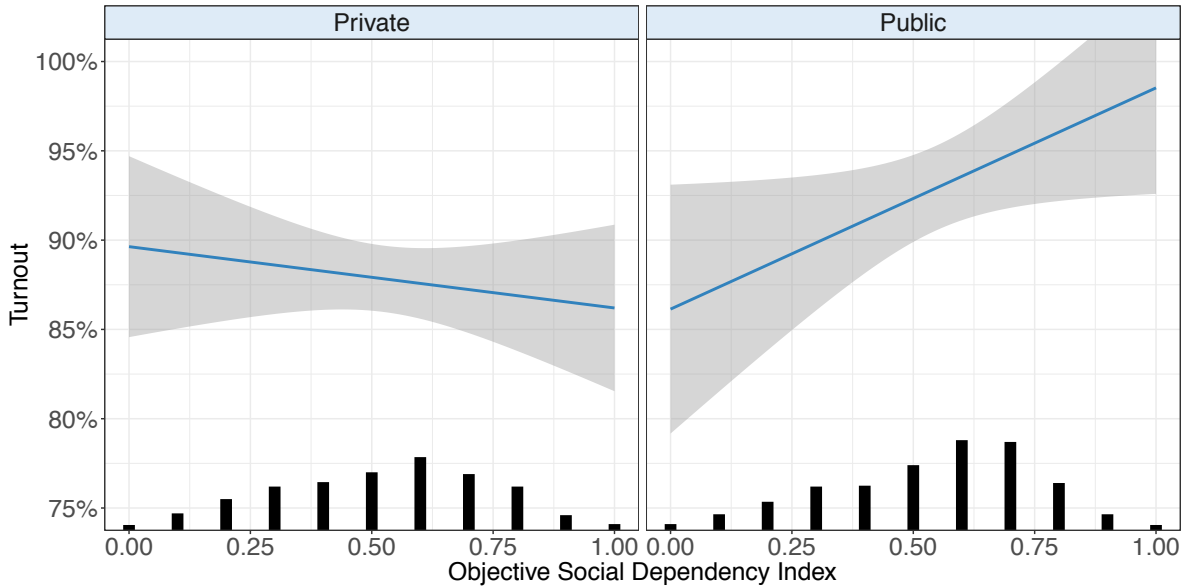
Note: These plots use experimental voting from the first round for public respondents and all rounds for the private respondents. Lines represent linear regressions of turnout on social dependency and grey ribbons correspond to 95% confidence intervals. Histograms show the distribution of social dependency among respondents.

ostracism and exclusion from their local community. These costs increase when an individual does not have a partner, has more children to care for and lacks experience and social connections outside of the community.

Using the subjective measure in Tanzania and the objective index in Uganda, Figure 5 shows the relationship between social dependency and experimental turnout for private and public respondents.[44] In both countries, more socially dependent individuals are more likely to vote in the public condition, as evident from the strong positive slope in the right panels. Among private respondents, however, there is not a strong correlation between social dependency and turnout.

The varying slopes in the two experimental conditions is consistent with the theory and suggests that social dependency operates through a social norm of voting, which is activated in the public condition.[45] The lack of a strong positive correlation between social dependency and turnout in the private condition confirms that what I term "social dependency" is not altruism. While altruistic citizens would be more likely to vote regardless of whether their peers are watching (Fowler and Kam, 2007), social dependency stimulates compliance only when an individual's reputation and status are at stake in the public condition.

Social dependency is also distinct from socioeconomic status. Though social dependency and income are strongly negatively correlated in Uganda, they are weakly positively correlated in Tanzania. Relatively wealthy and poor respondents are similarly distributed across social dependency levels. Kolmogorov-Smirnov tests fail to reject the null hypothesis that the two samples of social dependency scores for respondents with and without income are

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[44]I preregistered using the objective index in Uganda. I cannot create the same index in Tanzania because respondents were not asked about their marital status and number of children. The experimental turnout data from Tanzania are from the first wave of the panel conducted prior to the 2015 general election. There is a slight negative correlation between social dependency and turnout in the public condition using experimental turnout data from the second wave. I discuss possible reasons for this reverse correlation in the Online Appendix.

[45]The difference in slopes between the public and private conditions is statistically significant at the conventional level in Uganda but not in Tanzania. Regression tables are included in the Online Appendix.

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drawn from the same distribution, both in Tanzania and Uganda. Interviews in Tanzania indicate that wealthier individuals similarly rely on other community members—for example, with cooperation in finding lost or stolen property and funeral preparations. There is also an ambiguous relationship between years of education and social dependency—the variables are positively correlated in Tanzania and negatively associated in Uganda.

Although the relationship between social dependency and turnout should not be interpreted as causal, the data demonstrate a positive association between reliance on one's local community and willingness to incur an individual cost to vote when turnout is observable that is consistent with the theory. Because socially dependent individuals are more likely to comply with the social norm of voting, they may have stronger preferences for social sanctions to curb free riding among their less dependent peers. In the endline survey Tanzanian respondents reported their preferences for incorporating social ostracism in the experiment in the future. More socially dependent respondents have a stronger, and statistically distinct, preference for sanctions than their less dependent peers.[46]

These diverging preferences for sanctions make sense given respondents' varying propensities to comply with the social norm of voting. More socially dependent citizens may require tools to encourage those less reliant on the community to also vote. Social ostracism seems to be one such mechanism. Figure 6 displays experimental turnout across social dependency levels for public respondents in the control condition (solid line) and in the social ostracism condition (dotted line) in Tanzania. Social ostracism has a leveling effect, as the positive correlation between dependency and turnout disappears in this condition. Visible and automatic social sanctions seem to have the power to motivate those less reliant on their local community to also comply with the social norm of voting.

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[46]A t-test of differences in preferences between respondents with high (greater than or equal to the third quartile on the subjective dependency measure) and low (less than or equal to the first quartile) social dependency results in a .11 difference in means, with an associated p-value of .015.

Figure 6: Experimental turnout across social dependency levels for control and ostracism public groups in Tanzania
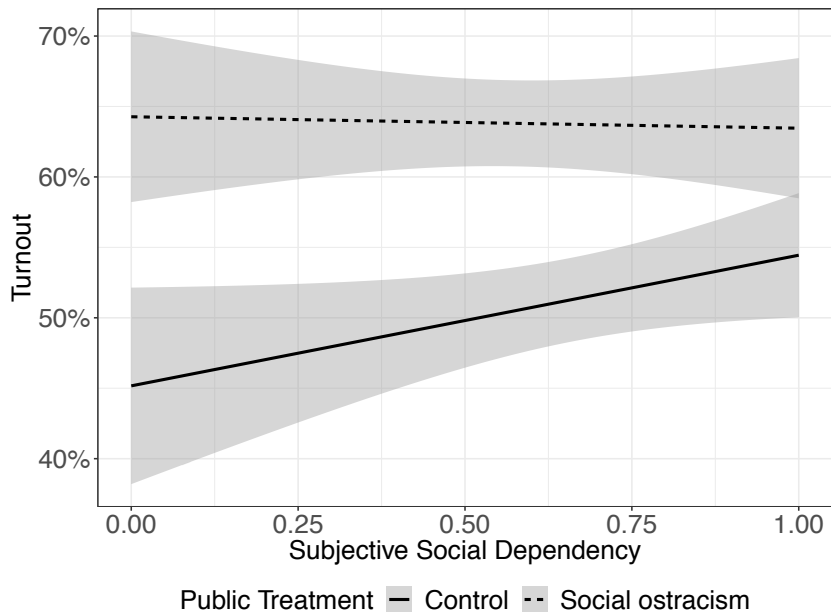
Note: Lines correspond to linear regression models of experimental turnout on social dependency, separately for the public control and social ostracism conditions. The data include rounds two through five of experimental voting.

6   Conclusion

Amid the many reasons why citizens decide to show up on Election Day, social-psychological motivations driven by intra-community dynamics have been under-explored in developing democracies. The comparative literature has documented the role of material motivations but has focused less on the important role of citizens' non-material interests and how they are shaped by the communities in which they live. By proposing an alternative rationale for how a social norm of voting can arise in semi-authoritarian states, my theory extends the literature on social norms of participation and contributes to the literature on turnout in autocracies.

While it may not be surprising that a social norm of voting exists, this study empirically documented its presence in a least-likely scenario—two semi-authoritarian states. Survey ev-

idence revealed that citizens expect others to comply with the norm and anticipate sanctions for abstaining. Using a novel experimental design, I found that the probability that citizens will vote in a hypothetical election significantly increased when their turnout behavior was public to their neighbors. The threat of social ostracism further increased compliance with the social norm of voting. These results suggest that individuals are motivated to turn out on Election Day in order to be viewed as a helping community member and to avoid social sanctions from their peers. Individuals who are most *socially dependent* on their local community are most likely to comply with the social norm of voting.

These findings broaden our understanding of why citizens vote in elections. While rulers claim that turnout signals their popular mandate and scholars often regard it as "an excellent indicator of democratic quality" (Lijphart, 1999, 284), this study suggests that turnout may reflect a different aspect of democracy. In some cases, voting may not signal faith in the regime nor serve as a primary mode of government accountability. Instead, voting may be driven by *horizontal accountability*—a sense of duty to one's local community, rather than to the state (Hur, 2018).

Recognizing the existence of social norms of voting in semi-authoritarian systems can alter current understandings of the meaning of a vote and provide new insights into how autocrats endure. When a social norm of voting operates in tandem with the regime's objectives, rulers need not rely on clientelism or coercion to achieve social control and encourage electoral turnout. Rather, driven by the prospect of public goods, members within local communities nurture self-enforcing social norms of voting. Where state control falls short, self-perpetuating norms, like that documented in Tanzania and Uganda, can help to prop up autocrats.

This study highlights a low-cost and minimal-effort mechanism that semi-authoritarian regimes can use to survive. It also helps explain regimes' decisions to distribute goods, to incentivize turnout, without a reliable enforcement mechanism. Future research should

explore the pervasiveness of the use of social norms for social control.

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Appendix

Social Voting in Semi-Authoritarian Systems

January 18, 2019

Contents

A Survey Data

A.1 Sample statistics

The representative phone survey data used in the paper comes from "Sauti za Wananchi" (henceforth "Sauti") panel survey collected by Twaweza East Africa, an international NGO based in Dar es Salaam. More information about how respondents were sampled is available here: https://www.twaweza.org/uploads/files/SzW%20Approach%20Paper%20FINAL.pdf. The data presented in the paper are from the survey round conducted in Tanzania October 13-24, 2015. Table A1 presents basic characteristics of the Sauti panel and the Afrobarometer round 6 nationally representative survey conducted in 2014. The sauti wave is somewhat older, more educated, and includes less women than the Afrobarometer sample.

Table A1: Basic demographics of the representative phone survey panel and Afrobarometer in Tanzania

	Sauti (phone survey) 2015	Afrombarometer (round 6) 2014
N	1886	2386
Age	39.59	22.39
Completed primary school	82%	78%
Female	41%	50%
Rural	68%	65%

The paper also draws on survey data from my original survey that was conducted in randomly selected rural villages in Mwanza, Mbeya, and Kilimanjaro in November 2015. Table A2 displays characteristics of my original survey sample next to demographics of the rural subset of the Afrobarometer sample. The sample of respondents I contacted looks broadly similar to rural respondents sampled in the Afrobarometer survey except for the fact that respondents in my sample were older.

Table A2: Basic demographics of my original survey panel and rural Afrobarometer in Tanzania

	Original survey (2015)	Afrobarometer (2014)
N	1150	1550
Age	37.89	22.62
Education (4pt scale)	2.08	2.07
Female	52%	50%
Has income	75%	72%
Rural	100%	100%

A.2 Survey question wording

The exact wording, both in English and Swahili of the Sauti survey questions about how much peers respect someone who votes and engages in other activities, and which social sanctions are anticipated are included here:

Respect: Thinking about the community in which you live, on a scale from 0 to 10 (where 0 is not at all and 10 is completely) how much do you respect someone in your community who does the following actions?/ *Ukifikiria kuhusu jamii unayoishi, ukitumia mzani wa 0 hadi 10 (Ambapo 0 sio kabisa na 10 kabisa) ni kwa kiasi gani unamuheshimu mtu yeyote kwenye jamii yako ambaye anafanya matendo yafuatayo?*

(RANDOMIZE ORDER OF LIST BELOW)/*(CHANGANYA ORODHA)*

1. Contributes (money, food, or labor) to funerals of community members.

   Anachangia (pesa, chakula au nguvu kazi) katika mazishi ya jamii yako

2. Contributes money or labor to community development projects.

   Anachangia pesa au nguvu kazi katika maendeleo ya jamii

3. Votes in elections

   Anapiga kura wakati wa uchaguzi

4. Attends community meetings

   Anahudhuria mikutano ya jamii

5. Provides advice to people in the community

   Anatoa ushauri kwa wanajamii

6. Provides money (for example for bus fare or food) to people in the community

   Anachangia pesa (mfano nauli au chakula) kwa wanajamii

Sanctions: Say you didn't vote in the October 25 general election. If people in your community learned that you didn't vote how would they react? For the following statements please tell me whether this is true or false about how people in your community would react/*Tuseme kwamba hutapiga kura siku ya tarehe 25 Oktoba. Kama watu wa jamii yako wakijua kwamba haujapiga kura, wataguswaje?Katika maelezo yafuatayo, tafadhali niambie kama ni kweli au la kuhusu jinsi wanajamii wenzako watakavyoguswa.*

(RANDOMIZE THE ORDER OF THE BELOW LIST)/ *(CHANGANYA ORODHA)*

1. They would not care at all, everyone would act normally towards me (true/false)

   Hawatajali kabisa, kila mtu atashirikiana na mimi kama kawaida (Kweli/Si kweli)

2. They would ask me why I didn't vote (true/false)

   Wataniuliza kwa nini sikupiga kura(Kweli/Si kweli)

3. They would prohibit me from complaining about the government in the future (true/false)

   Watanizuia kulalamika kuhusu serikali hapo baadae (Kweli/Si kweli)

4. They would blame me if bad leaders are elected into office (true/false)

   Watanilaumu mimi endapo viongozi wabaya watachaguliwa (Kweli/Si kweli)

5. They would lose respect for me (true/false)

   Watakosa heshima juu yangu (Kweli/Si kweli)

6. They would think I do not want to help the community get public services from government (true/false)

Watafikiri kuwa sitaki kusaidia jamii ili kupata huduma za umma kutoka serikalini (Kweli/Si kweli)

A.3   Principal component analysis of survey items

To examine the relationship between the survey items included in both the question about respect for actions and anticipating social sanctions, I examine the principal components of the variables. Figure A1a plots the results of this analysis for the respect survey items. It is clear that voting in elections and participating in community development projects are closely related. The two variables have a Spearman's correlation coefficient of .87, suggesting that both measures capture a similar underlying concept, such as demonstrating that an individual cares about his community.

Figure A1: Principal components of actions respected and social sanctions anticipated by Tanzanians (Sauti phone survey, October 2015)

(a) Respect for actions   **(b)** Social sanctions anticipated
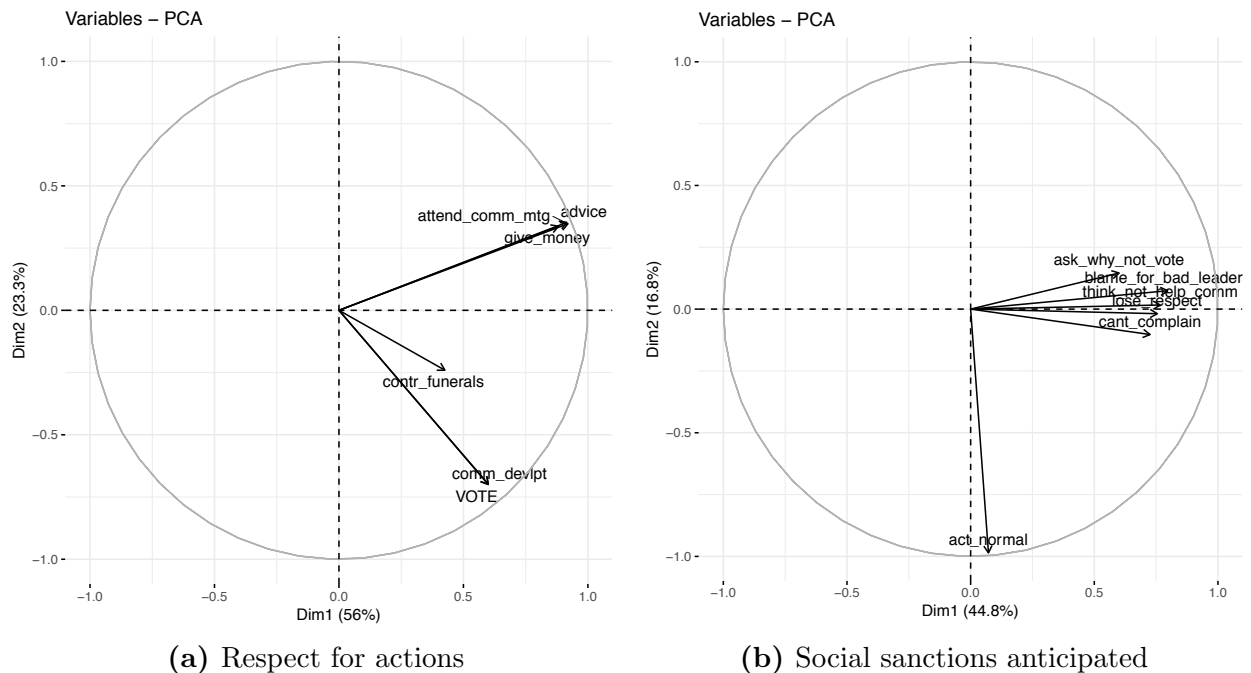
Figure A1b plots the principal component analysis of the social sanction items along two

6

dimensions. Almost all social sanctions items load heavily onto the first dimension. "Act normally" is the exception and loads onto the second dimension. Though all of the social sanction items have high internal consistency, with a Chronbach's alpha of .71 (above the conventional lower limit of 0.5), this alpha measure increases to .78 when the item "act normally" is dropped. This analysis indicates that respondents consider these types of social sanctions to be similar, with the exception of "act normally."

B Experimental Design and Results

B.1 Design

Figure B1 shows the experimental treatments and the sample size in each treatment arm in Tanzania and Uganda. The data in Tanzania come from the second wave of a panel study and were collected two weeks after the October 25th general election in 2015. I use data from the second wave of the panel because in the first wave the cost of voting was double in the public condition compared to the private. In this second wave, the cost of voting was equivalent between the public condition (rounds 1-3) and the private condition (round 4-6). The Uganda data were collected March 22-April 8, 2016 after the February 2016 general election.

Figure B1: Experimental Design and Sample Size in Tanzania and Uganda
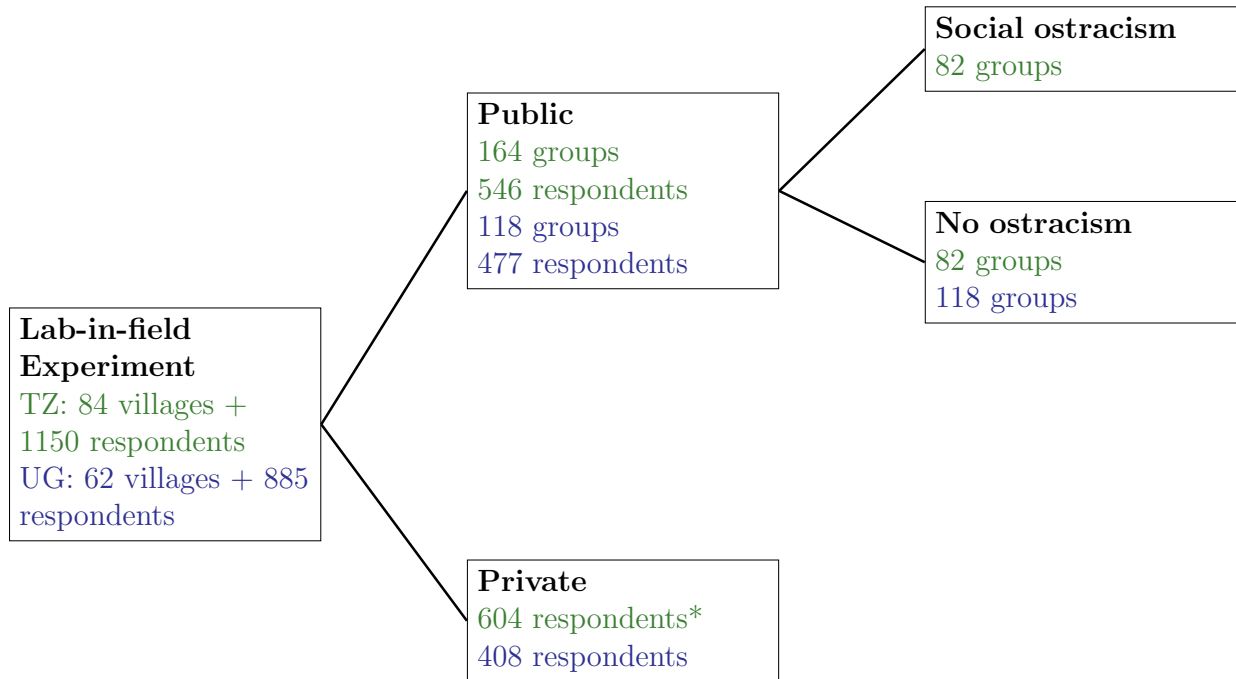
*Of the 604 respondents in the private condition in Tanzania 2/3 of the sample were treated with an additional prime before they voted in the experiment. These treated observations are removed from the analyses presented in the paper, and I am left with 208 private respondents in Tanzania.

Each public group in Tanzania and Uganda also originally included a local elite, either a teacher or a political elite, from the village. These individuals have been removed from the public data for analysis since they were sampled with a different probability than the rest of the respondents. In another paper, I analyze the influence of these elites on experimental group behavior.

B.2   Balance tables

The following tables present summary statistics and tests of balance across treatment and control conditions for important covariates. Table B1 shows balance for the public and private treatments in Tanzania. Table B2 displays balance for the control and social ostracism groups in the public condition and Table B3 shows balance for the public and private treatments in Uganda. Given some existing inequalities in observed baseline characteristics, the main analyses are always replicated using linear regressions that control for these demographic variables.

Table B1: Balance on baseline covariates for private and public respondents in Tanzania

	Private	Public
N	207	282
Age	36.49	37.42
	(12.81)	(14.63)
Female	54%	51%
	(0.50)	(0.50)
Education (4pt scale)	2.10	2.10
	(0.51)	(0.49)
Has income	75%	76%
	(0.43)	(0.43)
Supporting ruling party	57%	65%†
	(0.50)	(0.48)

Note: Standard deviation is provided in parentheses. Symbols in the public column refer to p-values from a two-tailed t-test of equality with the private group ($^{\dagger}p<0.1$; $^{*}p<0.05$; $^{**}p<0.01$).

Table B2: Balance on baseline covariates for public respondents in control and social ostracism groups in Tanzania

	Control	Social Ostracism
N	282	264
Age	37.42	40.42*
	(14.63)	(15.62)
Female	51%	50%
	(0.50)	(0.50)
Education (4pt scale)	2.10	2.05
	(0.49)	(0.47)
Has income	76%	79%
	(0.43)	(0.41)
Support ruling party	65%	64%
	(0.48)	(0.48)

Note: Standard deviation is provided in parentheses. Symbols in the social ostracism column refer to p-values from a two-tailed t-test of equality with the control group ($^{\dagger}p<0.1$; $^{*}p<0.05$; $^{**}p<0.01$).

Table B3: Balance on baseline covariates for private and public respondents in Uganda

	Private	Public
N	408	477
Age	34.00	35.55
	(14.26)	(14.01)
Female	47%	52%
	(0.50)	(0.50)
Education (7pt scale)	2.49	2.77**
	(1.36)	(1.53)
Income enough	86%	86%
	(0.35)	(0.35)
Support ruling party	75%	73%
	(0.43)	(0.44)

Note: Standard deviation is provided in parentheses. Symbols in the public column refer to p-values from a two-tailed t-test of equality with the private group (†p<0.1; *p<0.05; **p<0.01).

B.3   Conjoint candidate attributes

The hypothetical election experiment used a conjoint choice task to present respondents with hypothetical MP candidates running in their constituency (Hainmueller, Hopkins and Yamamoto, 2014). The six candidate attributes and randomly assigned "levels" that each candidate could possess are listed in Table B4.

Table B4: Attributes and levels of hypothetical candidates presented in the conjoint experiment in Tanzania

Attribute	Level 1	Level 2
Religion	Muslim	Christian
Party	CCM	Opposition
Tribe	Chagga	Sukuma
Past Performance–Community	Gave community nothing	Gave community social services
Past Performance–Individuals	Gave you nothing	Gave you money for social services
Promises	Has promises and a plan	Has promises but no plan

Note: In Uganda the only difference in attributes was that the candidate's tribe was either the same tribe as the respondent (coethnic) or a different tribe (non-coethnic). In Uganda the candidate's party was either NRM (the ruling party) or an unspecified opposition party.

Figure B2 shows how these hypothetical candidate characteristics were depicted using images given high illiteracy rates in the population of interest. The images to display candidate characteristics in Uganda were adapted for that context, for example the party flags were changed.

Figure B2: Sample private voting ballot with attributes labeled - Tanzania
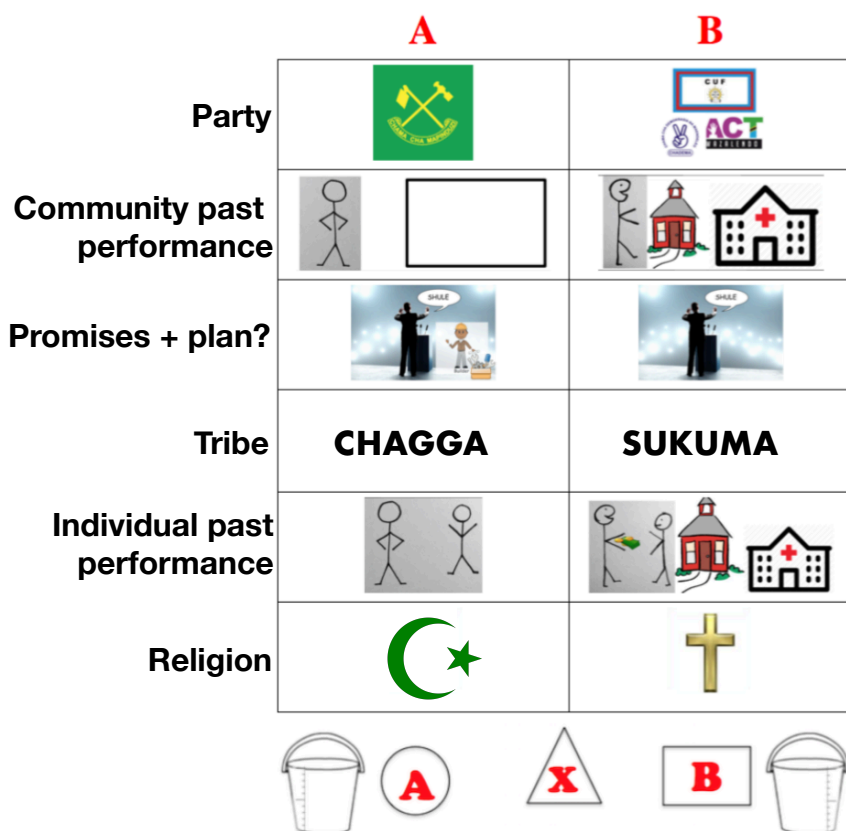
B.4 Results from the first wave in Tanzania

The Tanzania data presented in the paper were collected after the October 2015 general election. I also conducted the same experiment two weeks prior to the 2015 election with the same respondents. The panel setup was to investigate the influence of the election on voter preferences and norm change, which is the subject of other work. I use data from the second wave in the paper because the cost of voting in the experiment was different between the

public and private conditions in the first wave. Specifically, the cost of voting in the public condition was *double* the cost of voting in the private condition. To ensure that the public treatment results presented in the paper are not particular to the timing of the experiment, below I analyze the effect of the public treatment compared to the private in the first wave when the cost of voting differed between public and private conditions.

Table B5: Public treatment effects in Tanzania when the cost of voting is *double* in the public compared to private

	Dependent variable:		
	Vote		
	(1)	(2)	(3)
Public	0.054*	0.063*	0.068*
	(0.027)	(0.027)	(0.028)
Village FE		✓	✓
RA FE		✓	✓
Controls			✓
DV mean (private)	0.82	0.82	0.83
DV std. dev (private)	0.39	0.39	0.38
Observations	7,150	6,628	4,938
R^2	0.002	0.094	0.123
Adjusted R^2	0.002	0.081	0.103

Note: [†]$p<0.1$;*$p<0.05$;**$p<0.01$. All models include data from the first round of the public game and all six rounds for private respondents. Standard errors are clustered at the level at which treatment was assigned: by group for public and by respondent for private. Controls include age, sex, education, income, and partisanship.

Somewhat surprisingly, Table B5 shows that despite the varying costs to vote across treatments (i.e., voting was twice as expensive in the public condition compared to the private), the public treatment increases the probability that respondents will vote in the experiment by around 6 percentage points. These treatment effects are similar to those found in Uganda (where the cost of voting was equivalent). These results provide additional

support for the theory that a social norm of voting motivates turnout.

B.5 Social ostracism treatment

Table B6: Effect of social ostracism treatment in Tanzania – Full Sample

	Dependent variable:			
	Vote			
	All rounds		Rounds 2-5	
	(1)	(2)	(3)	(4)
Social Ostracism	0.094*	0.084†	0.109*	0.098†
	(0.043)	(0.045)	(0.048)	(0.050)
Round FE	✓	✓	✓	✓
Controls		✓		✓
DV mean (control)	0.57	0.58	0.54	0.55
DV std. dev (control)	0.5	0.49	0.5	0.5
Observations	6,344	5,038	4,242	3,366
R^2	0.093	0.115	0.052	0.080
Adjusted R^2	0.092	0.112	0.051	0.076

Note: †p<0.1;*p<0.05;**p<0.01). All standard errors are clustered at the group level. Controls include age, sex, education, religion, partisanship and income.

The paper presents the effect of the social ostracism treatment on experimental turnout in Tanzania using the subset of villages in which there is a control public group and a social ostracism group. That analysis examines the influence of the social ostracism treatment looking at within-village variation in treatment status due to the inclusion of village fixed effects. To examine the robustness of the findings, Table B6 presents additional regressions using the full sample of villages in Tanzania. These regressions do not include village fixed effects since the ostracism treatment was assigned at the group level, not blocked on village so not every village in the sample includes a control and ostracism group. The results are on par with those presented in the paper and are consistent across models that use data from all

rounds, data from rounds 2 through 5, and include controls. The social ostracism treatment increases the probability of voting in the experiment by between 8 and 11 percentage points in the full sample. The results change if only the first round of public group data is analyzed because respondents likely did not yet understand the social ostracism instructions and the consequences of what would happen if they abstained.

Table B7: Effect of social ostracism by social dependency levels in Tanzania

	Dependent variable:
	Average Turnout
Social Ostracism	0.215*
	(0.091)
Dependency (0-10)	0.007
	(0.007)
Ostracism:Dependency	−0.011
	(0.010)
Village FE	✓
Round FE	✓
Observations	2,040
R^2	0.326
Adjusted R^2	0.309

Note: †p<0.1;*p<0.05;**p<0.01). Standard errors are clustered at the group level.

In the paper, Figure 6 illustrates that the social ostracism treatment has an equalizing effect on turnout across social dependency levels. Table B7 displays the results from a linear regression interacting the social ostracism treatment with dependency. Though the interaction term is not statistically significant at conventional levels, there is a large substantive difference in the social ostracism treatment effect across dependency levels. For someone who rates themselves as not at all dependent on their community (dependency = 0) the ostracism treatment increases the probability that person will vote by 21.5 percentage points. Comparatively, for someone who says they are completely dependent on their community (dependency = 10), the ostracism treatment increases their probability of voting in

the experiment by 11.5 percentage points. Social ostracism has a larger effect on those less dependent on their local community, who would otherwise be less inclined to vote compared to their more dependent neighbors.

B.6   Experimental results from Uganda

Before analyzing the data from Uganda, I filed a pre-analysis plan with the EGAP research design registry on September 26, 2016.

In Table B8, models 1 and 2 include the first round of public data and all rounds of private data. Here the public treatment increases the probability that respondents will vote by 4 percentage points, compared to the private condition. Models 3 and 4 subset the data to only the first round for both public and private respondents. While the results lose statistical significance here, the coefficient is similar in model 4 that includes standard controls. In the private condition it may have taken a few rounds for respondents to truly understand the game since here it relies much more on enumerators clearly explaining the instructions since the respondent votes in secret. Comparing turnout behavior in the first round of the public groups to the *second* round for private respondents, I find a statistically distinct difference in turnout rates: 92% of public respondents vote and 89% of private respondents vote (p-value=0.01042).

Table B8: Public treatment effects in Uganda

	Dependent variable:			
	Vote			
	(1)	(2)	(3)	(4)
Public	0.040*	0.043*	0.017	0.037
	(0.017)	(0.018)	(0.020)	(0.025)
Village FE	✓	✓	✓	✓
RA FE	✓	✓	✓	✓
Controls		✓		✓
DV mean (private)	0.88	0.89	0.91	0.91
DV std. dev (private)	0.33	0.31	0.29	0.29
Observations	5,630	3,554	1,756	1,074
R^2	0.120	0.140	0.216	0.258
Adjusted R^2	0.106	0.113	0.171	0.174

Note: †p<0.1;*p<0.05;**p<0.01). Models 1 and 2 include data from the first round of the public game and all six rounds for private respondents. Models 3 and 4 include only the first round for both public and private respondents. All standard errors are clustered at the level at which treatment was assigned: by group level for public and by respondent for private. Controls include age, sex, education, income, and partisanship.

C   Experimental Validity

C.1   Public vote choice

The fact that vote choice is visible to peers in the public condition is a departure from the reality of voting in actual elections in Tanzania.[1] For several reasons outlined here, I do not believe that the fact that vote choice was visible is very problematic for the analysis of the difference between public and private turnout in the experiment. First, vote choice in the experiment had no material consequences for the participants. The structure of paying to vote and the money spent on votes going to public goods in the community was consistent across all rounds regardless of which candidate "won" the hypothetical election. In this way, respondents' vote choice was completely irrelevant.

Second, it may be the case that the fact that vote choice was observable increased the rate of *abstention* rather than turnout. For instance, an individual guessing that the other group members will all vote for a particular candidate (A), might be more inclined to abstain, rather than be the only supporter of the unpopular candidate or having to falsify her true preferences. If we think that preference falsification comes at some social or personal cost (for instance, having to lie to others) then it is plausible that abstaining, which also saves the respondent money, might be the easier option.

While there is no way to empirically test this hypothesis, descriptively, preference falsification is rare in the experimental data from Tanzania. I analyzed the hypothetical candidate profiles in which the two candidates were identical except for their political party (one was from the ruling party and the other was from an opposition party). In these 18 cases, I observe how the 59 respondents who saw these profiles and reported their own partisanship

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[1]Though the secrecy of vote choice is sometimes not certain in other contexts. For example, interviews in Lagos suggest that voters flash their ballots to lingering party brokers as evidence that they voted for a particular candidate. Even in countries typically thought to have strictly enforced secret ballot regulations, like the U.S., voters have been taking "ballot selfies" and posting photos of their marked ballots to social media https://en.wikipedia.org/wiki/Ballot_selfie.

at baseline behave, presented in Table C1. Most of the time respondents either abstain or vote their true preference, very few vote for the candidate from the opposite party than themselves. Overall, in the entire data set of candidate profiles, there are 87 instances of a single group member abstaining while the rest of the group votes for the same candidate. There are 79 instances when a single group member votes for a different candidate than that which the rest of the group supports.

Table C1: Behavior when experimental candidate profiles only differ by party in Tanzania

Falsify preferences	Vote true preference	Abstain
10% (N=6)	39% (N=23)	51% (N=30)

Again, nothing conclusive can be drawn from these data but it does seem like respondents were much more willing to abstain than to falsify their preference and support a candidate from the opposite party. Furthermore, respondents seem somewhat more willing to be only person in the group to abstain, rather than the only person to support a different candidate than the rest of the group. These data do not suggest that public voting greatly increased turnout, if anything it may have increased abstention therefore diminishing the estimated treatment effect of public turnout in the experiment compared to what it might have been if vote choice was secret. Though unrealistic, this aspect of the experimental design is only critically problematic for inference if you take the position that observable vote *choice* somehow inflated turnout rates in the public condition, compared to what they would be if vote choice was secret.

C.2   Audience size and turnout

One potential concern with the results presented in the paper is the thought that higher turnout in the public condition might be due to respondents feeling reciprocal toward the enumerator who is present in the public condition while everyone makes their turnout decisions. This alternative explanation would be problematic for the interpretation of the

difference in public and private turnout rates as being due to a local social norm of voting. To investigate this concern, I use the theory that "publicity, understood as audience size, is the fuel of the economy of esteem" to test whether the size of the audience is related to rates of norm-compliance (turnout) in the experiment (Brennan and Pettit, 2004, 158).

In the second wave of the panel survey after the election some groups experienced attrition because respondents had traveled out of the village that day. This attrition provides variation in the size of the group.[2] Although attrition is not an exogenous source of variation in group size, it is likely orthogonal to the voting behavior of the remaining group members.

Figure C1: Public group size and experimental turnout in Tanzania

In the presence of a social norm, the level of compliance (turnout) should vary in relation to the size of the audience. Specifically, turnout should be higher in larger groups. By contrast, if turnout in the public condition was instead driven by reciprocity toward the enumerator, then the size of the public group should not be correlated with experimental turnout. Figure C1 illustrates that, as the social theory of voting predicts, turnout is positively correlated with the size of the public group. Specifically, 63% of respondents in groups with three participants vote in the first round of the experiment, whereas in groups with five participants 87% of respondents vote in the first round. Thus, increasing the size of the public group from

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[2]The enumerators were instructed to only proceed with groups that had at least three participants.

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three to five is associated with a 24 percentage point increase in turnout. This difference in means has an associated p-value of 0.01. While purely correlational, these data suggest that public turnout is not purely driven by reciprocity to the enumerator and provide additional evidence that a social norm is operating.

C.3 Lack of elite influence in Tanzania

The paper proposes an additional explanation for why poor rural citizens vote in elections with foregone conclusions—due to a social norm of voting. This theory can operate in conjunction with alternative motivations, such as material incentives and coercion. For this reason it is not the intention of the paper to evaluate the relative importance or influence of one rationale for voting over the other. In the presence of a social norm, however, we may want to know who in the community is particularly involved in its enforcement. While clientelist theories suggest that traditional leaders and party elites play a critical brokerage role in ensuring citizens uphold their end of the clientelist bargain and vote on election day (Baldwin, 2013), theories of social norms instead suggest that the responsibility of monitoring and enforcing the norm of voting is shared among all community members (Knight, 1992).

The hypothetical election experiment allows me to test these competing mechanisms in the context of the experiment because a local village elite was assigned to participate in each public group. Because these elites were sampled with a different probability than the rest of the participants, who were recruited through a random walk, I remove the elites from all of the analysis in the paper. Here, again the elites themselves are removed and I instead observe how the presence of different types of elites influences other participants' turnout behavior.

In each village, a teacher was randomly assigned to one public group and a *balozi*, or "ten cell leader" was assigned to the other.[3] In Tanzania, teachers are assigned to schools by the

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[3]In order to sample these elites we sent research assistants to the villages a few days ahead of the

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Ministry of Education. Although teachers are often allocated to their home region, or even district, they are rarely located in their home village. Hence, teachers are sometimes seen as outsiders by indigenous community members. As employees of the central government, teachers in Tanzania are viewed as having valuable contacts and information (Fortmann, 1980). The teacher was recruited from the local government primary school.[4] Though high status, we would not expect teachers to have any particular interest in enforcing the social norm of voting.

Balozi are embedded community members who have been directly elected by their households since the early 1960's.[5] Once a ruling-party instrument of control, today balozi have little *de jure* power and some represent opposition parties. Balozi may have greater sanctioning power by virtue of their elected political position in the community and their perceived connection to the government. Croke (2016) finds that when individuals answer survey questions in the presence of their balozi, they are much more likely to report that they will vote for the ruling party candidate in the next election. Balozi may also take a particular interest in enforcing the social norm of voting because it may benefit them materially—or emotionally if they think they are helping their party—or they may face pressure from party elites to enforce sanctions.

If norm enforcement is top-down and elite-led then we would observe a large and significant difference between the behavior of respondents in the balozi and teacher groups. In other words, if balozi are the main enforcers of the norm of voting we should expect to see significantly higher voting rates in the balozi groups compared to the teacher groups. We

enumeration teams to meet with the village chairman and enumerate the possible balozi and teachers. The enumerator would write these names down on paper, rip them apart, shuffle the crumpled pieces and then allow the village chairman to select one piece from the balozi pile and one piece from the teacher pile at random.

[4]If there was not a primary school in the village we selected one from the nearest school where villagers sent their children.

[5]The plural of *balozi* in kiswahili is *mabalozi* but for the reader's convenience I use *balozi* to indicate singular and plural.

would also observe this pattern if clientelism were operating and causing citizens to be particularly wary of being observed by the balozi. In the case of social norms, we might instead expect enforcement to be bottom-up and driven by community members themselves. If norm enforcement is decentralized across the entire group that seeks to benefit from norm compliance we should not see any difference in behavior in the presence of party elites, compared to non-political elites.

Figure C2 plots average turnout in the public (control) groups with the teacher and balozi by round in each of the three regions of study. There is a lot of heterogeneity between regions and no clear pattern of turnout rates across the two types of groups.[6] In the first round of the experiment, across all regions, 85% respondents in balozi groups vote and 82% of respondents in teacher groups vote. This differences in means is not statistically significant at conventional levels. These data provide suggestive evidence that the social norm of voting is not specifically enforced by political elites.[7]

The fact that participants do not significantly adjust their experimental voting behavior in the presence of the balozi, compared to the teacher, suggests that mobilization or fear of sanctions from the balozi in particular is not driving turnout in the experiment. Given the lack of a difference between respondent behavior in the different group types suggests that clientelism or elite mobilization is not what is producing the experimental results. Ideally, we would also want a pure control group where no local elite was present at all, which was not feasible due to power and budget constraints. My qualitative interviews, however, suggest that teachers do not play a large role in voter mobilization in rural Tanzania.

Social norm enforcement seems to be decentralized and distributed throughout the community, it does not rest solely in the hands of a third-party enforcer. These data also indicate

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[6]Though it could be possible that both the balozi and teacher equally engage in clientelism or coercion, and therefore there is no difference in the experimental groups, my qualitative fieldwork suggests that teachers play much less of a mobilizing role around elections than does the balozi in some areas.

[7]In other work I investigate whether these elites participate in changing norms within these groups across the six rounds of the experiment.

Figure C2: Experimental turnout in balozi and teacher groups by region in Tanzania
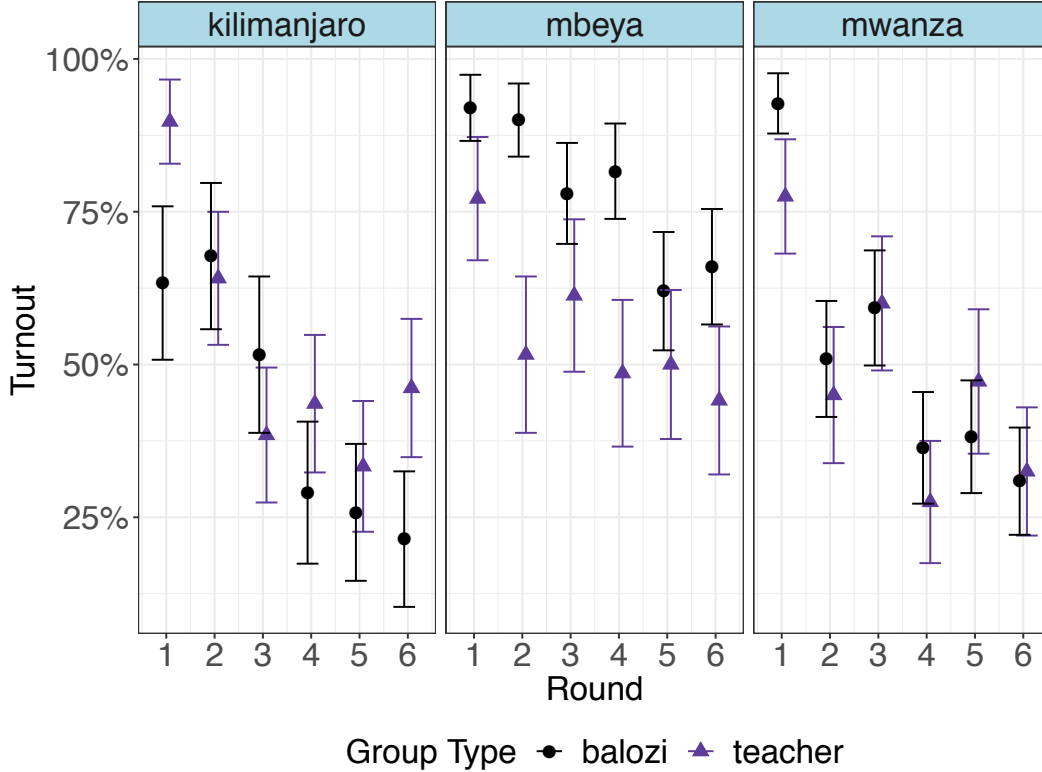

that social norms are a mechanism of social control that communities can implement themselves. By establishing shared beliefs and expectations of how others will behave, community members can influence each other's decision to vote (Bicchieri, 1990).

C.4 Heterogeneous treatment effects by age and political competition

In addition to the results presented in the paper, two heterogeneous treatment effects provide further evidence that the experiment is identifying the influence of a social norm of voting. First, the effect of the public treatment on experimental turnout varies by age of the respondent. As discussed in the paper, norms are socialized and learned (Bicchieri and Muldoon, 2014). For this reason, we would expect older citizens to be more familiar with a social norm

of voting. Figure C3 plots the marginal effect of the public treatment across respondent ages. Among 20-year-old respondents, the public condition increases the probability that they will vote in the experiment by 20 percentage points, compared to the private condition. This effect decreases with age and becomes statistically insignificant. This result is driven by the fact that turnout in the public condition is consistently around 82% across all ages, whereas the relationship between respondent age and turnout in the private condition is strong and positive. Average turnout among 20-year-old respondents in the private condition is 65%, whereas 60-year-old respondents vote at similar rates (around 80%) in private and public. These data suggest that older citizens have already learned and internalized the social norm and therefore require less external motivation or enforcement than younger citizens do, where the effect of the public condition is strongest.

Figure C3: Marginal effect of the public treatment by age in Tanzania
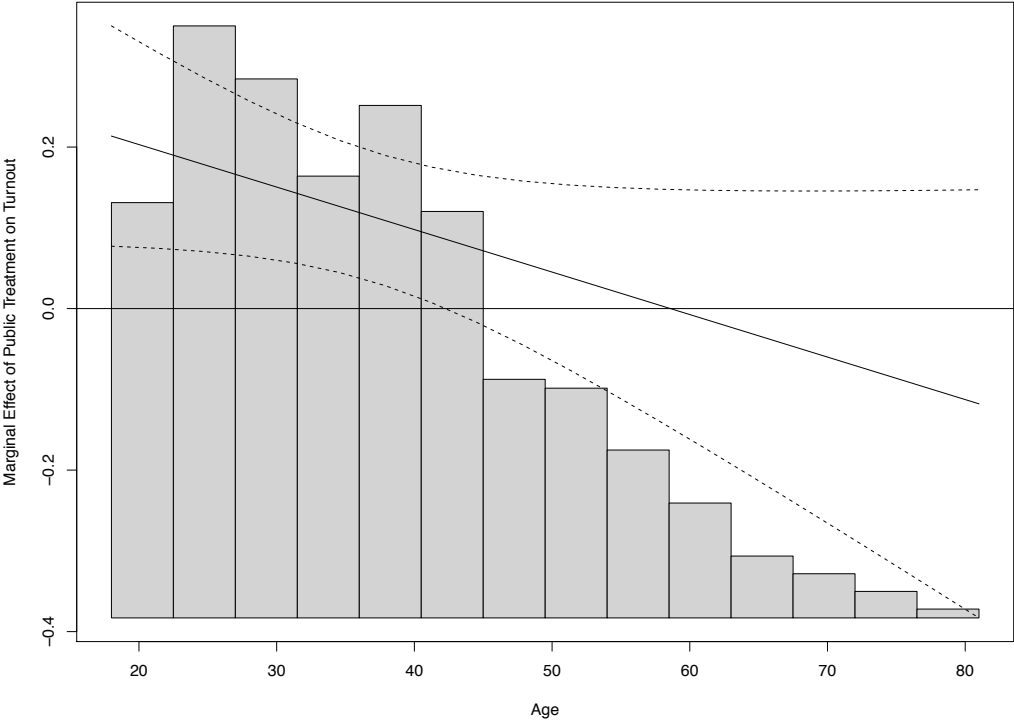
Second, the fact that the gap in turnout between the public and private conditions is larger in *less* competitive areas provides additional support for the theory. Specifically, these data help to rule out the alternative explanation that turnout in the public condition is due to more information helping to solve a coordination problem, rather than the presence of a social norm.

Unlike conventions, which are descriptive norms that solve coordination problems where individuals' interests are aligned with the group's interest, social norms usually exist in cases where individual self-interest and group interest conflict. The public condition of the experiment is consistent with decreasing coordination costs for group members by publicizing others' actions. Though coordination, say around a particular candidate, is easier in the public condition than the private, if the observed experimental behavior is purely a result of coordination we would not expect the public treatment to have much of an effect in less politically competitive places where there is less of a coordination problem to overcome since a majority of community members support the same political party.
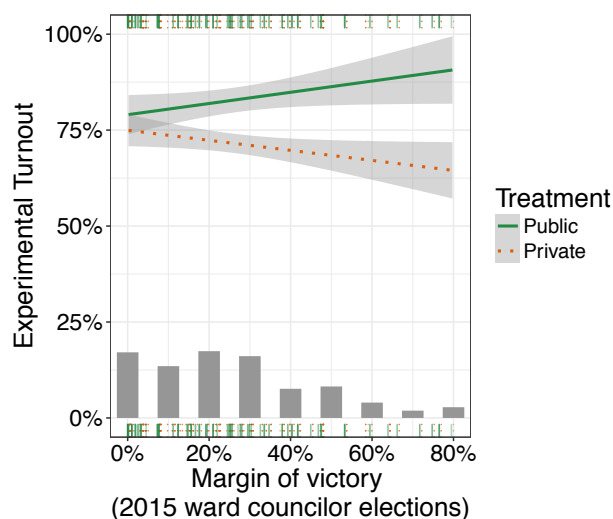

Figure C4: Tanzania

Figure C5: Uganda

Note: The electoral competition data in Tanzania come from ward councilor elections, which are concurrent with Presidential and MP votes, because this is the electoral data I have for the ward level (the lowest administrative unit at which electoral results are reported by the government).
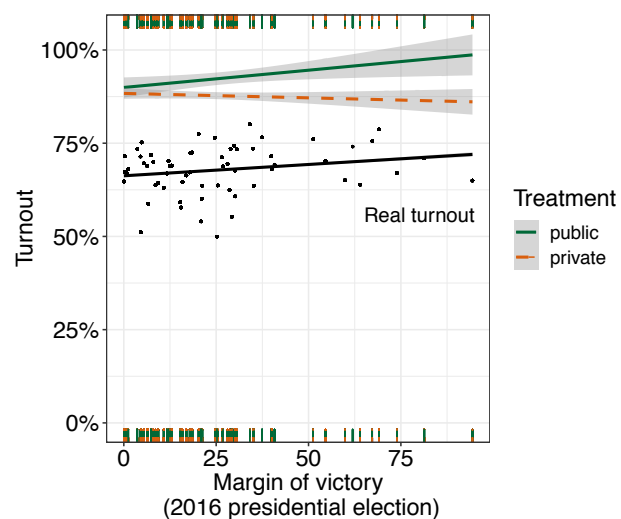
Figures C4 and C5 show experimental turnout in the public and private conditions by the margin of victory in the most recent election in Tanzania and Uganda, respectively. In both cases the gap in experimental turnout between the public and private conditions is largest in *less* politically competitive areas. As the margin of victory increases (moving from left to right on the x-axis) and elections become less competitive, the gap between public and private turnout increases in both countries. I interpret this as an indication of the increased importance and influence of social pressure to vote in less competitive areas.

Interestingly, in Uganda real turnout is also higher in less politically competitive places. Unlike standard group-based models that suggest that turnout increases as competitiveness increases, the data from Uganda present the opposite empirical pattern. Turnout is slightly higher in less politically competitive places (as measured by the margin of victory). In addition to the survey data that demonstrate that citizens hold normative attitudes toward voting in elections, these data also suggest that this study identifies a social norm of voting from rather than a coordination mechanism.

Figure C6: Experimental turnout by region in Tanzania

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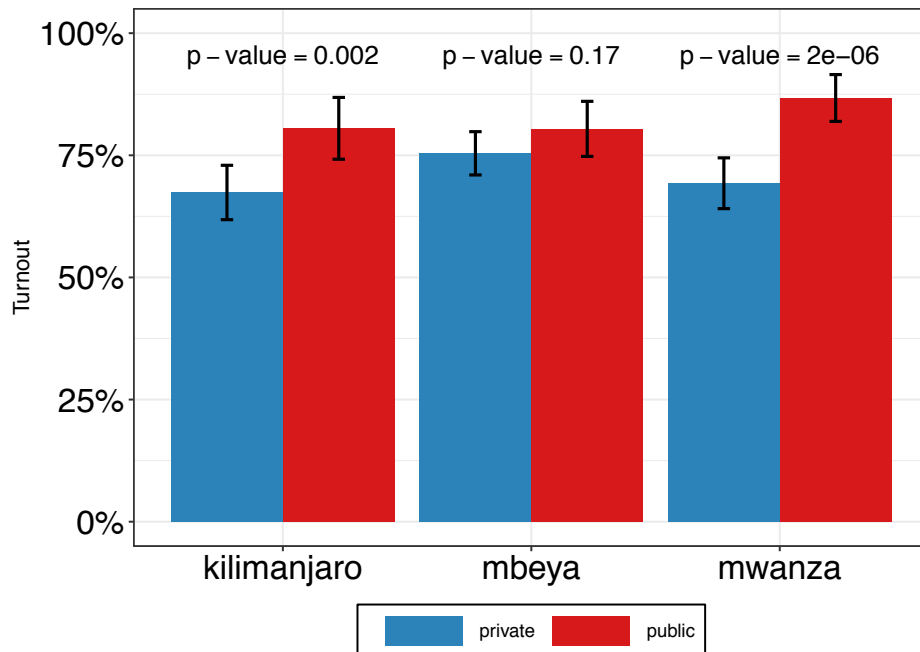
The fact that the public treatment effect persists in opposition stronghold areas suggests that this is truly a social norm of *voting* rather than a norm about vote choice. Figure C6 shows turnout levels in public and private conditions across the three regions of study in Tanzania. Kilimanjaro is a main opposition stronghold area in the country. Even here there is still a large and statistically significant treatment effect. Thus, the norm of voting still persists in places where opposition candidates have won offices and demonstrated that they can provide for their constituents. In this case, however, the norm does not completely coincide with the regime's goals of increasing turnout for their party, but it does support the goal of high turnout in elections, generally.

D Turnout in the 2015 General Election in Tanzania

If the experimental results, that show individuals are more likely to vote when they are being observed by their peers, are due to a social norm of voting, then we should expect real-world turnout to exhibit a similar pattern. To further test the theory and gain leverage on the external validity of the experiment, I organized and trained a team of enumerators to collect data on the polling stations in our sample villages. Enumerators collected the location of the polling station, the type of building, number of entrances and locals' perceptions of the centrality of the polling station in the village, among other attributes. Since the National Electoral Commission (NEC) in Tanzania does not centrally collect polling station-level electoral results, and these were no longer available at most polling stations surveyed, I had to find an alternative way of obtaining these data. Working with contacts at the main opposition political party in Tanzania, Chadema, I traveled to their regional party offices to try and collect these data, which they also do not systematically collect. Through their contacts, I was able to recover 2015 general election results for 96 polling stations across 45 villages in my sample.

When beginning this data collection effort, I did not expect to recover results for all of my sample villages. I believe that missing data from the polling stations is mostly unrelated to variables that would influence a social norm of voting. Based on my experience, the success of enumerators in obtaining electoral results was largely due to their level of effort and elite connections. While working with Chadema to collect additional polling station-level results, we were similarly more successful where their party agents were better organized. We also obtained data from several of the constituencies where Chadema fielded a MP candidate in the election. (In one instance the MP candidate had traveled to the US but instructed his elderly father to travel four hours by bus to deliver the results to the regional party headquarters.) This would bias the selection of polling stations towards *more* competitive

areas—which would be *less* likely to experience a norm of voting given that increased competition necessitates a concern with vote choice not just turnout behavior —and would thus downward bias the likelihood of observing a norm of voting in these locations. I was also in the office as the opposition party was receiving the polling station-level results and therefore do not believe that these data were manipulated at this point, nor at the time of voting because a party agent from every party represented at the polling station must sign off on the results before they are posted.

If citizens vote to gain status and avoid sanctions, then we should observe higher turnout in villages where voting is more public. Based on my qualitative research and time spent in these villages, voting seems to be more public in villages that only have a *single polling place.* In such cases everyone gathers at the same location on election day. In villages with multiple stations, the various voting locations make monitoring neighbors' behavior more challenging. As the number of polling places increases in a village, conditional on village size and population, voting likely becomes easier (e.g., shorter distances to travel and shorter lines at the booth). If turnout is rather driven by ease of access then we should instead expect higher turnout in villages with more stations.

The villages with a single polling place, however, are likely quite different from those with multiple stations, for example in terms of population, development, density, and terrain.[8] Indeed, there is a large difference in population between villages with a single polling station (2297 residents) and villages with more than two stations (4273 residents). Larger villages might also be more likely to be targeted by opposition campaigns that need to efficiently use their limited resources. There also may be political reasons why some villages have four stations and others only have one. The number of stations is also likely correlated with the

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[8]Unfortunately, there is no hard and fast rule to determine how many polling stations are allocated to each village. The number of citizens registered to a single polling station in my sample ranges from 111 to 1537 voters. While the government suggests that each polling station should serve 500 registered voters, this is not followed in practice.

level of development in the village since polling stations are most frequently schools, clinics or other permanent structures.

For these reasons, I focus on villages that have either one and or two polling stations to try to mitigate (but definitely not overcome) concerns about differences in village characteristics that might relate to the presence of a norm of voting. While still different, villages that have one or two stations may be more similar.[9] Moreover, with respect to reducing the ability for peers to observe turnout, we might be particularly interested in the difference between having a single polling place and having two where the ability to monitor others is dramatically reduced and individuals can plausibly assert that they voted. Having at least two polling stations in the village allows individuals to potentially convince others, or have their neighbors assume, that they voted at a different station. Each additional station, after two, might not afford individuals any additional leverage in this respect. Therefore, social pressure motivations may be removed in places with two polling places but not any further reduced by additional stations.

Figure D1: Number of polling stations in village and turnout in 2015 general election
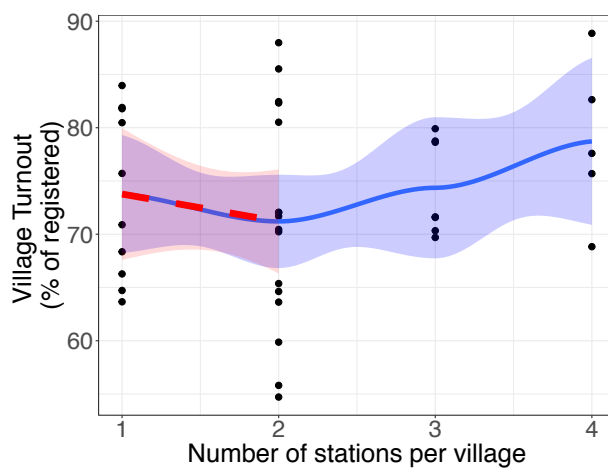
Note: Data points are plotted with an OLS regression line (red dashed) and loess line (blue solid).

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[9]There is not a substantive nor statistically significant difference in population between villages with a single station (2297 residents) and those with two (2495 residents).

Figure D1 illustrates the relationship between the total number of polling stations in the village and village-level turnout in the 2015 election. Given the fact that additional polling places increase access, overall turnout is positively correlated with the number of polling stations for villages with one to four stations. Focusing on the 28 villages that have one or two stations reveals a different relationship. Here, we observe, as the theory would predict, that turnout in the 2015 election is 2.9 percentage points *higher* in villages with a single polling station, where it is easier to monitor citizen behavior, compared to turnout in villages with two polling stations. The tiny sample size makes it unsurprising that the difference is not statistically significant (p-value of .41).[10]

Table D1: Relationship between village turnout and the number of polling stations

	Dependent variable:	
	Turnout	
	(1)	(2)
# of polling stations	$2.828^{\dagger}$	-1.946
	(1.513)	(4.434)
village population	-0.002^{*}	$-0.002^{\dagger}$
	(0.001)	(0.001)
Village area (km^2)	-0.022	-0.017
	(0.015)	(0.017)
Constant	73.380^{**}	82.507^{**}
	(4.120)	(8.321)
Observations	31	19
R^2	0.242	0.273
Adjusted R^2	0.158	0.127

Note: †p<0.1; *p<0.05; **p<0.01

Note: Model 1 includes all villages for which I have data. Model 2 includes only villages with 1 or 2 polling stations.

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[10]Conducting the same analysis for the 62 parishes in my Uganda sample, I find that on average 2016 turnout in parishes with a single polling station (N=5) was 71%, compared to 69% turnout in parishes with two polling stations (N=15), with an associated p-value of 0.48.

Subsetting the data to villages with similar population sizes (between 1200 and 2800 people), I still find that places with a single station have higher turnout (on average 74%) compared to places with two polling stations (68%). It is interesting that, for these villages, the correlation between the number of polling stations and turnout is negative, given that citizens in villages with two polling stations, *ceteris paribus*, have greater access than those in villages with a single polling place. Table D1 shows regression analyses of these data including village-level controls.

As an additional probe, I analyze turnout patterns separately for large and small communities. Social norms are said to be stronger in smaller, tight-knit communities where members can better monitor behavior and punish free riders (Bicchieri and Muldoon, 2014). Consistent with this idea is the fact that turnout is higher in villages with smaller populations for which I have data. Specifically, in villages with populations larger than the 75th percentile (4,126 residents) turnout in the 2015 general election was on average 69.3%, whereas in smaller villages with populations less than the 25th percentile (1,640 residents) 73.8% of registered voters turned out.

In smaller villages, where residents are more likely to frequently interact and know each other well, members likely have other mechanisms of knowing who votes and who abstains. For example, frequent interaction after Election Day may make observing others' inked fingers more likely. The number of polling stations might not influence turnout in small villages that can rely on multiple mechanisms of monitoring turnout. Figure D2 displays turnout across the number of polling stations for small and large villages. In smaller villages (plotted as triangles and a dotted loess line), turnout remains fairly constant around 75% but turnout in larger villages (plotted as points with a solid loess line) drops dramatically between villages with one and two polling stations, suggesting that Election Day monitoring is more critical in larger villages compared to smaller ones. Overall, these data from the 2015 general election share similar patterns with the experimental results–turnout tends to

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Figure D2: Number of polling stations in village and turnout in 2015 general election – Large v. Small Villages
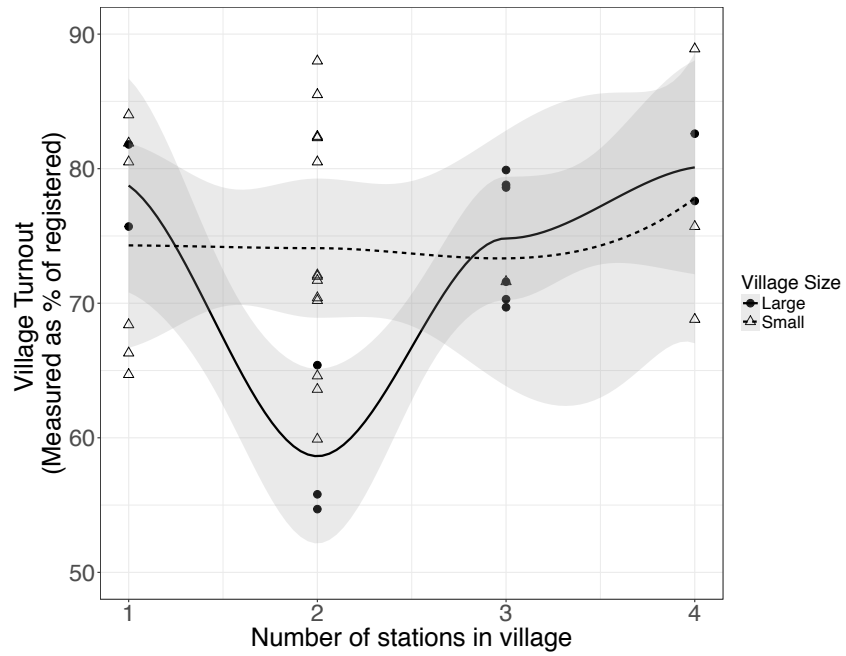
Note: Data points are plotted for large (solid dots, solid line) and small (open triangles, dotted line) villages - defined by their relationships to the mean - with loess lines.

be higher when it is more visible–and support the idea that a social norm of voting motivates turnout.

E Social Dependency

E.1 Correlates of social dependency measures

Table E1 displays the correlates of subjective social dependency in Tanzania, as measured by the question "On a scale from 0-10, how much do you depend on other people in your community?" Table E2 shows the correlates of both subjective and objective social dependency in Uganda.

Table E1: Correlates of subjective social dependency in Tanzania

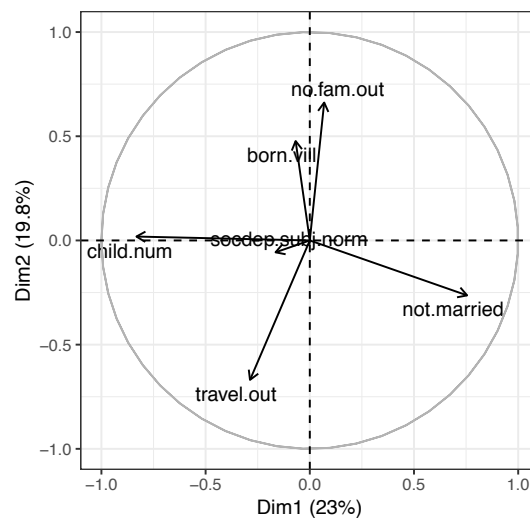|	*Dependent variable:*
	Subjective social dependency
age	−0.008
	(0.009)
education	0.132
	(0.273)
female	0.367
	(0.247)
opposition	−0.639*
	(0.250)
has income	0.195
	(0.312)
Constant	6.251**
	(0.805)
Observations	704
R^2	0.014
Adjusted R^2	0.007
Note:	†p<0.1;*p<0.05;**p<0.01

In both Tanzania and Uganda, unsurprisingly, women are somewhat more reliant on their local community than men. In Tanzania, income and social dependency are positively correlated, meaning that respondents with a job that pays a cash income are more reliant on their local community than those who do not have any income. In Uganda, more intuitively, the opposite relationship exists and respondents who have enough income to live on and less

reliant on their community. Interesting, years of education and reliance on the community are also positively correlated in Tanzania but negatively so in Uganda. The subjective and objective social dependency measures in Uganda are minimally correlated, with a Spearman's rank correlation coefficient of 0.06 and associated p-value of .09.

The objective social dependency measure in Uganda includes five variables: marital status, number of children, born in the community, family outside the village, and frequency of travel outside the village. All variables are coded so that the *lack* of connection and resources outside of the village and the greater the challenge to being expelled from the village receive a higher dependency rating.[11]

In my pre-analysis plan for Uganda, I specified that I would create this social dependency index. While I initially thought that it would be a good idea to create an index if the variables were highly correlated, after further reading it makes the most sense in this case to create an index *because* the variables load onto different dimensions (as Figure E1 indicates), precisely because social dependency is multidimensional.

Figure E1: Principal components of social dependency in Uganda

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[11]For example, for travel outside of the village the variable is coded as 1= yes-frequently, 2=yes-sometimes, 3=yes-rarely, 4=no-never.

Table E2: Correlates of two measures of social dependency in Uganda

	Dependent variable:	
	Subjective dependency	Objective dependency index
	(1)	(2)
age31-40	0.023	0.165**
	(0.027)	(0.014)
age41-50	0.056†	0.220**
	(0.031)	(0.016)
age51-60	−0.012	0.259**
	(0.038)	(0.020)
age61-70	0.092†	0.231**
	(0.053)	(0.028)
age71-80	0.057	0.266**
	(0.088)	(0.046)
age80+	−0.112	0.272**
	(0.166)	(0.087)
Education	−0.001	−0.033**
	(0.008)	(0.004)
Voted_2016	0.039	0.047*
	(0.037)	(0.019)
Male	−0.010	−0.059**
	(0.022)	(0.012)
Income enough	−0.084**	−0.030*
	(0.029)	(0.015)
Constant	0.557**	0.528**
	(0.048)	(0.025)
Observations	716	715
R^2	0.023	0.405
Adjusted R^2	0.009	0.397
Note:		†p<0.1;*p<0.05;**p<0.01

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E.2 Social dependency and turnout

Table E3: Public treatment interacted with dependency in Tanzania and Uganda

	Dependent variable:	
	Average Turnout	
	Tanzania	Uganda
	(1)	(2)
Dependency	0.004	−0.034
	(0.048)	(0.055)
Public	0.002	−0.035
	(0.045)	(0.044)
Dependency:Public	0.075	0.158*
	(0.065)	(0.077)
Constant	0.817**	0.896**
	(0.032)	(0.031)
Observations	806	842
R^2	0.011	0.019
Adjusted R^2	0.008	0.015
Note:	†p<0.1;*p<0.05;**p<0.01	

Table E3 includes linear regression models of respondents' average turnout in the experiment on social dependency interacted with public treatment (corresponding to Figure 6 in the paper). These models use data from all rounds for private respondents and only using the first round for public respondents. In Tanzania the data come from the first wave of the experiment prior to the 2015 general election. Social dependency was measured in the baseline survey in the first wave. Average experimental turnout from the second wave and social dependency are slightly negatively correlated in the public condition. I believe this difference in the relationship between social dependency and experimental voting behavior between the two panel waves is due to the fact that social dependency was only measured in wave I, and respondent's self-reported reliance on the community may have changed had they been asked again after the election. This explanation would suggest that subjective social dependency

is not static. More research is required to better understand whether one's reliance on the community is fixed or variable, and may change for example with circumstances or timing.

Figure E2: Number of children and experimental turnout in Uganda
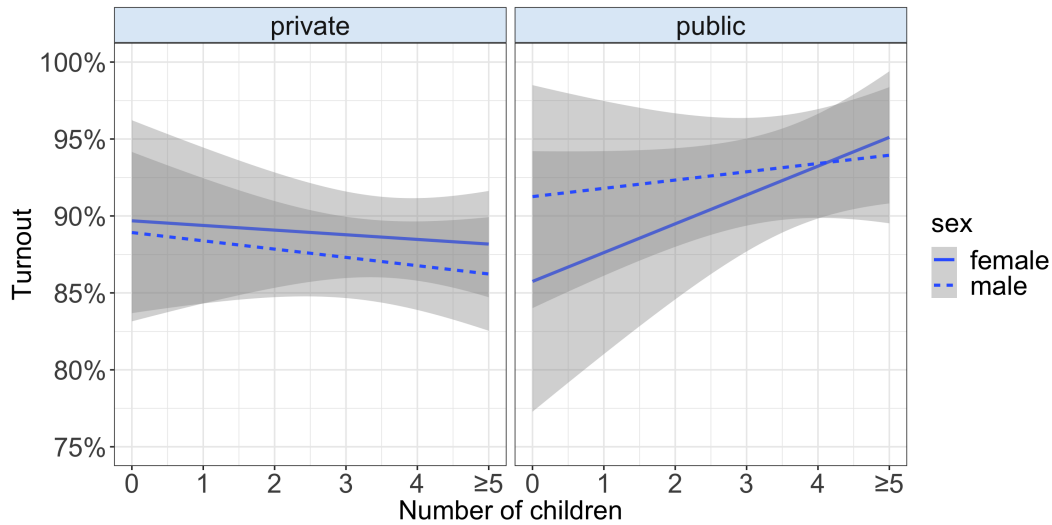
Although the relationship between subjective social dependency and experimental turnout is tenuous in Tanzania, objective social dependency is strongly correlated with both experimental and real turnout in Uganda.[12] Interestingly, the number of children respondents have, a somewhat more exogenous source of social dependency, is positively associated with experimental turnout in the public condition, both for male and female respondents (see Figure E2).

Table E4 also demonstrates that objective social dependency is a strong predictor of real-world turnout in Uganda. Even while controlling for standard predictors of turnout, including age, sex, education, income, and partisanship, social dependency stands out as an important explanatory variable to predict self-reported turnout in the 2016 general election.

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[12]In Uganda, subjective social dependency and experimental turnout are negatively correlated. I believe the subjective open-ended question in Uganda was not well understood by enumerators or respondents as I was not present for the training of these enumerators. In addition, I was not able to do follow-up work in Uganda, so I am unable to determine how respondents interpreted this open-ended question.

Table E4: Predicting self-reported turnout in the 2016 general election in Uganda

	Dependent variable:
	Turnout 2016
objective dependency index	0.150*
	(0.066)
age31-40	0.048†
	(0.029)
age41-50	0.052
	(0.033)
age51-60	0.046
	(0.040)
age61-70	0.067
	(0.052)
age71-80	0.055
	(0.084)
age80+	0.080
	(0.170)
educationP4-P7	−0.019
	(0.032)
educationPolytechnic	−0.053
	(0.058)
educationS1-S3	−0.063
	(0.041)
educationS4 (O Level)	−0.005
	(0.044)
educationS5-S6 (A-Levels)	−0.025
	(0.065)
educationUndergraduate	−0.060
	(0.065)
male	0.072**
	(0.023)
income enough	0.024
	(0.027)
rulingparty	−0.003
	(0.024)
Constant	0.789**
	(0.056)
Observations	540
R^2	0.059
Adjusted R^2	0.030

Note: †$p<0.1$;*$p<0.05$;**$p<0.01$

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