

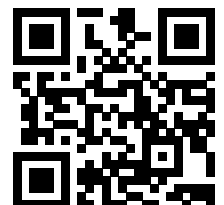


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Working Papers in Economics and Statistics

2024-03



University of Innsbruck
Working Papers in Economics and Statistics

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Conditional Payments for Democracy to Local Leaders Managing Natural Resources in Rural Namibia

IVO STEIMANIS¹, ESTHER BLANCO^{2,3,*} & BJÖRN VOLLAN¹

Abstract: In this study, we provide causal evidence on the capacity of monetary incentives to encourage real-life local leaders managing water and land to improve their procedural fairness. We report results from incentivized decisions and surveys conducted with local leaders in rural Namibia (n=64) and their constituents (n=384). Conditional payments are introduced in a setting where leaders can select among different rules that vary in their perceived procedural fairness in distributing a monetary allocation. In a within-subject design we randomly introduce a small or large conditional payment for allowing for a vote. The majority of leaders (64%) embrace democratic decision-making initially. With payments there is a significant reduction in autocratic leadership, by switching mainly to appearing democratic while keeping control, but with no significant increase in truly democratic leadership. Explorative analyses reveal that the effects are mainly driven by extrinsically motivated leaders to govern, who are less democratic initially and who reap the conditional payments without effectively including constituents in the decision process. Our findings suggest that simply introducing conditional payments for democratic choices may not be sufficient to promote democratization of local governance for the management of natural resources, and caution against their blueprint use in pluralistic governance settings.

Keywords: local governance of common pool resources, social norms, conditional payments, economic experiment.

JEL: D7, Q2, Q5, C9.

Conflict of interest statement: The authors declare no known interests related to their submitted manuscript.

Financial disclosure statement: The funding sources was not involved in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. We thankfully acknowledge the funding by the Austrian Science Fund (FWF) grants P 25973- G11 and P 32859 (Prof. Esther Blanco) and the University of Innsbruck Nachwuchsförderung 2014-2015 (Prof. Björn Vollan).

Data availability: The data and code to replicate the results reported in this manuscript are available on GitHub ([link](#)).

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1. INTRODUCTION

Ostrom and colleagues (Ostrom 1990; 2006; A. R. Poteete and Ostrom 2008; A. Poteete, Janssen, and Ostrom 2010; Ostrom 2014) identified institutional design principles for the sustainable management of common pool resources, considering evidence from in-depth case studies, meta-analyses of cases, and large-scale comparative studies. These are broad institutional regularities present among systems that were sustained over long periods and were absent in failed systems. A crucial precondition for collective action to sustain local common pool resources is that many of those in a given social dilemma grow to trust one another, including leadership. This precondition can foster a readiness to undertake a mutually agreed-upon action, even if it involves short-term personal costs. This willingness stems from the perception of long-term benefits for oneself and others, coupled with the belief that the majority will also adhere to the agreement (Ostrom 2010).

Concurrently, political scientists and development economists have pushed for local democratization in the Global South as a mechanism to achieve better outcomes for the management of common pool resources and community wellbeing. Democratic norms emphasize fair and just group decision-making (Neubauer 1967) and are upheld by citizens and politicians who embrace its democratic principles and values (Sullivan and Transue 1999; Hyde 2011; Clayton et al. 2021). In the West, democratic norms guide behavior in many domains of life, from choosing school representatives to electing the president of the country. Like many other social norms, democracy is believed to reduce self-serving tendencies of individuals and to foster socially beneficial outcomes (Barro 1973; Fearon 1999; Besley 2005; Ashworth and Bueno de Mesquita 2008). In the Global South, the push of international aid agencies for democratization at the national and local level has entailed, for long, the use of conditional payments (Bardhan 2002; Ribot 2003). Foreign aid donors condition payments on imperfect monitoring on basic observable activities, like holding elections, rather than the desired outcomes that constituents can effectively and freely choose their leaders (Beaulieu and Hyde 2008; Hyde 2011).² Truly democratic procedures require a collection of gold standards of

² The type of democracy-contingent benefits that have been used in the past flow from different sources, including increase in foreign aid (Brown 2005; Dunning 2004; Knack 2004; Wright 2009), foreign direct investments (N. Jensen 2008; N. M. Jensen 2003; Li and Resnick 2003), increase in international tourism (Neumayer 2004), access to community-based-natural resource management programs (Silva and Mosimane 2013; Kegamba et al. 2022), and to payments for ecosystem services (Kaczan, Swallow, and Adamowicz 2013; Bremer et al. 2014, 20; Hayes et al. 2019; 2019; Jiangyi, Shiquan, and El Housseine Hmeimar 2020). Whatever the form of the benefit, the fundamental premise is that offering positive incentives conditional on the implementation of democratic processes would entail fairer processes. This is because democracy-contingent benefits create an incentive for incumbent leaders to signal that they are holding democratic elections so that they can obtain the contingent benefits.

democratization such as the existence of alternative candidates, anonymity of votes, transparency in counting of votes, etc. In Sub-Saharan Africa, this push for democratization along with widespread appreciation of local traditional political institutions (Logan 2013; Holzinger, Kern, and Kromrey 2020) led to legal systems that recognize both traditional and democratic governance institutions (Holzinger, Kern, and Kromrey 2016). Thus, de-facto real world institutions can be workable hybrids of old and new ideas brought up together (Clever 2017) or can alternatively be abused by existing leaders and elites who appear democratic without truly giving up power (Bardhan and Mookherjee 2000; Acemoglu, Reed, and Robinson 2014).

In this study, we provide the first causal evidence on how the introduction of conditional monetary incentives can promote transition towards democratic decision-making procedures by real life local leaders for the management of natural resources. We conducted a novel experiment with 64 leaders and 384 constituents in 32 rural Namibian communities where traditional and democratic institutions legally co-exist.³ These leaders either came to power through democratic processes or were appointed as traditional authorities, and take decisions over the allocation of water and land. In semi-arid regions, this crucially influences the well-being of their constituents, local users of natural resources. In the experiment, leaders had to choose between three procedures for distributing monetary benefits between them and the villagers. These include a *democratic rule*, where the group including the leader decide by a binding majority vote; a *pseudo-democratic rule*, whereby the leader allows for a vote but keeps the decision power (appearing but not being truly democratic); and an *autocratic rule*, where the leader openly decides unilaterally. We presented leaders with a group decision involving two possible allocations of payoffs, where one favors the leader at the expense of the villagers to a larger extent than the other. In a within-subject design leaders make rule choices over three rounds, a baseline and two treatment rounds, where we introduce conditional payments on the minimum attribute of ‘*allowing for a vote*’ (i.e. both for the *democratic* and *pseudo-democratic* rules), randomly varying the size of the monetary payment.

The introduction of conditional payments could convey different signals in situations with asymmetric information on democratic practices, about the strength of democratic decision-

³ Namibia introduced local democratic governance structures roughly 20 years ago (Behr, Haer, and Kromrey 2015). In our study area, traditional authorities manage and solve disputes over land use while democratic leaders manage and solve disputes over access to water points. In semi-arid landscapes and with livelihoods widely depending on subsistence herding and agriculture, these are two essential and complementary domains of power to define citizens’ well-being.

making norms (Spence 1973; Connelly et al. 2011). First, offering conditional monetary incentives could be a signal of social desirability, reinforcing the view that it is normatively expected to allow for voting (entailing thus an increase in democratic rule choices). Second, payments might signal ‘bad news’ in the sense that voting is not widely adopted *yet* by other leaders (Gneezy, Meier, and Rey-Biel 2011). Depending on the relative strength of both signals, the social norm of group voting could be strengthened or only its appearance (increase in pseudo-democratic rule) as a result to introducing conditional payments. Moreover, there is a risk for leaders who were already allowing for a vote without payments that monetary incentives lead to crowding-out (Bowles and Polanía-Reyes 2012) as leaders are willing to forego the payment to signal that their motivations were intrinsic (Kirgios et al. 2020). Thus, conditional payments could even backfire. This study provides first explorative evidence to assess causal treatment effects and heterogeneous responses to conditional payments for democratization of local governance of natural resources.

Our study complements previous literature on the importance of democratic decision-making for local governance of natural resources (see reviews and discussions in Ostrom 1990; 2006; 2010; A. R. Poteete and Ostrom 2008; Noussair and van Soest 2014; Sturm and Weimann 2006; A. Poteete, Janssen, and Ostrom 2010; List and Price 2016; Cárdenas 2015) as well as on the enforcement of norms through monetary peer-to-peer punishment or reward (e.g. Fehr and Gächter 2000; Balafoutas and Nikiforakis 2012; Balafoutas, Nikiforakis, and Rockenbach 2014). Our setup differs to previous research as decision makers can pretend to follow the social norm in public without really adhering to its spirit, thereby deceiving others, in a setting of information asymmetry. We also contribute to the literature investigating motivational crowding effects when monetary incentives are introduced (Frey and Oberholzer-Gee 1997; Deci, Koestner, and Ryan 1999; Gneezy, Meier, and Rey-Biel 2011; Rode, Gómez-Baggethun, and Krause 2015). The interaction of monetary incentives with pre-existing non-monetary motivations for a targeted behavior is complex and can lead to undesired outcomes (Frey and Oberholzer-Gee 1997; Deci, Koestner, and Ryan 1999).

Our results show that in the absence of conditional payments two-thirds of leaders risk forgoing private benefit and opt for the democratic rule, with no significant differences between traditional and democratic leaders. Leaders who allow their villagers to vote already without conditional payments in the experiment are also perceived as better leaders by their villagers in every-day life (survey measure), supporting some external validity of the baseline procedure choices. We also find that on average, introducing conditional payments did not significantly

change the overall share of leaders choosing the *truly* democratic rule. We only observe a decrease in the share of autocratic rule choices concurrent with an increase in pseudo-democratic rule choices. This illustrates the risk that introducing conditional payments under imperfect monitoring does not effectively switch to democratic decision-making by local leaders. This is consistent with previous evidence at the national level whereby leaders hold superficial elections to uphold the appearance of democracy (Collier 2009).

We show, however, that this does not mean that conditional payments are irrelevant to leaders' decision-making. Additional explorative analyses motivated by the social norms framework of Bicchieri and Dimant (2022) reveal heterogeneous responses to the conditional payments depending on leaders' baseline choices in the absence of conditional payments and motivations to run for office based on survey responses. We observe both crowding-out of leaders who chose the democratic rule without payments (switching to pseudo-democratic or autocratic rule) as well as crowding-in of pseudo-democratic or autocratic leaders (adopting the democratic rule). Crowding-out is more pronounced among leaders who are more intrinsically motivated initially, while crowding-in is stronger for leaders whose motivations depend stronger on external incentives.

Together, our results highlight the importance of having local leaders for the management of natural resources that are attracted by non-monetary incentives to align leader decisions with citizens' preferences (Gulzar and Khan 2021). Once extrinsically motivated leaders are in office, our results can be interpreted as a cautionary note on the limited potential of conditional monetary incentives to effectively foster truly democratic governance in contexts of legal pluralism and where imperfect monitoring of governance allow leaders to appear democratic. Both these features of local governance are common in Sub Saharan Africa. These results are particularly relevant insofar as our participants are real-life leaders for local governance and evidence is presented for the Global South, which is typically underrepresented in studies on social norms.

2. STUDY SITE AND SAMPLE

The global trend toward decentralization also includes the governance of natural resources. Many environment and development initiatives rely on decentralized grassroots institutions (Bardhan 2002; Ribot 2003; Björkman and Svensson 2009). Community-based natural resource management (CBNRM) programs typically involve transfers of certain property or use rights to local communities and create an environment that enables those communities to devise

accountable and transparent institutions to determine how, when and in what quantity the resources can be used. Well-functioning local institutions are key to successful self-governance (Ostrom 1990; Basurto and Coleman 2010) and one integral aspect of CBNRM is not only to fulfil environmental but also social goals such as equity, empowerment and ownership over the resource. Successful CBNRM requires not only good, intended institutions written down in a management plan but also leaders that allow all members of the community to be involved and take ownership.

Previous research shows the importance of local leaders for well-functioning CBNRM. For example, leaders who intrinsically embrace equality and efficiency are not only favored and more likely to be reelected by their communities but they also increase local forest quality in Ethiopia (Kosfeld and Rustagi 2015). Other evidence shows how local leaders can help contribute to the stabilization of fish stocks (Gutiérrez, Hilborn, and Defeo 2011), promote public good provisioning (Beekman, Bulte, and Nillesen 2014; Jack and Recalde 2015) and collective actions (Lobo, Velez, and Puerto 2016), and that the incentives of gaining office affect the selection of quality candidates (Besley 2005).

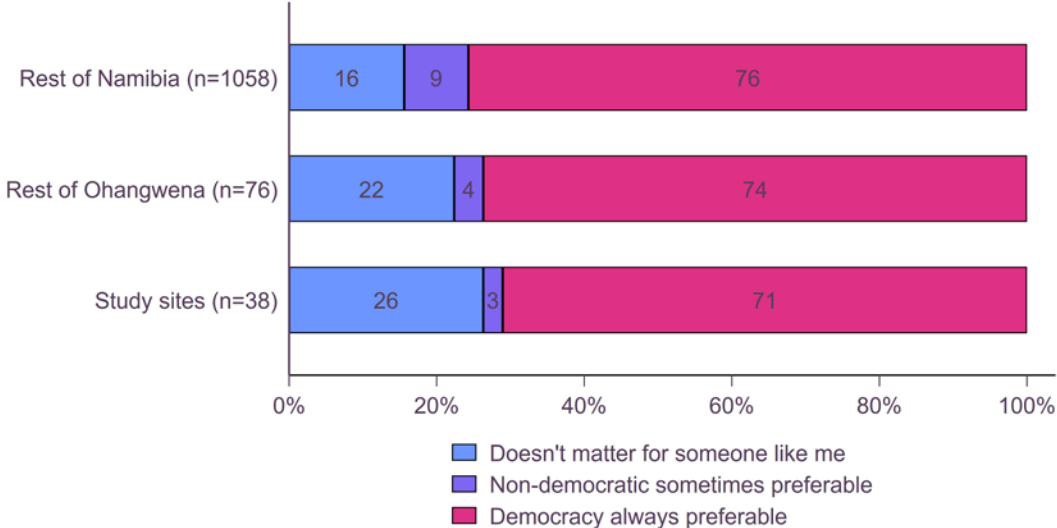
In Namibia there are two prominent but fundamentally different approaches to devolving rights and power to local communities. The first approach is to allocate rights and responsibilities to existing structures of leadership, including those who are not democratically elected (i.e. traditional authorities), and the second is to install new (often democratic) structures such as committees with designated heads.

The present study was conducted in the Ohangwena region in northern Namibia, where both traditional and democratic leaders co-exist in the same village. It is a semi-arid region and one of the most densely populated in Namibia. The large majority of the population belong to the Oukwanyama tribe, which is the largest ethnic group of the country. To strengthen the homogeneity of the subject pool and comparability between participants, we focused on the three largest constituencies (Ohangwena, Endola, and Oshikango) within the Ohangwena region. These constituencies are in the same political region and under the same traditional authority.⁴ People in this region speak the same language and share the same norms, values, and traditions related to democratic governance. Using data from the Afrobarometer from 2014, we compare democratic preferences in the study region to the rest of Namibia, showing no significant

⁴ We received permissions and support for our research from both the traditional authority as well as the regional government in Ohangwena. We restricted our research to the largest constituencies as we had to get additional permission from each constituency by the respective councilor.

differences. In regions outside our study area, the majority (73%) prefers democracy over any other form of governance, see Figure 1. Respondents from the three constituencies we sampled do not significantly differ in their democratic preferences from other respondents in Ohangwena region (Mann–Whitney U test $z = 0.35, p = 0.73$) nor the rest of Namibia (Mann–Whitney U test $z = 0.91, p = 0.36$). These findings show that the study area is comparable, at least in terms of clear support to democratic governance, to the rest of Namibia.

Figure 1. Preference for democratic governance in study region
Which of these three statements is closest to your own opinion?



Notes: Own illustration based on freely available Afrobarometer Round 6 data from 2014.

2.1. SAMPLE

The study sample comprises 64 leaders and 384 villagers from 32 villages, including in each village 12 villagers, the traditional chief and democratically elected authorities (DEL). First, we collected information about all villages with a water point in the three selected constituents from the Directorate of Rural Water Supply. The main selection criterium was that all villages had a traditional chief, who rules over land conflicts, and a running Water Point with a DEL. Secondly, we randomly selected 32 villages and 15 as backups from all 92 eligible villages in these three constituencies. In each of the 32 villages we then conducted one experimental workshop that lasted between three to four hours in total. At the end of the workshop, to make the decisions fully anonymous and the leaders’ choices untraceable, we paid out the total sum of all earnings. This included earnings from the procedural fairness task reported in this study, two other experimental tasks introduced to participants *after* the procedural fairness task (a social preference task and a nepotism game), and a show-up fee of 30N\$. In total, villagers earned about 90N\$ ±12N\$ (\$16 PPP adjusted) and leaders about 165N\$ ±42N\$ (\$29 PPP adjusted) on average. This is a substantial amount of money for our participants, as the average self-reported

daily cash income in our sample is about 9.3N\$ for villagers and 29.7N\$ for leaders. No participants, neither leaders nor villagers, were excluded from the experiments or the following analyses. Further details on the field implementation are reported in Supplementary Material Section S1.

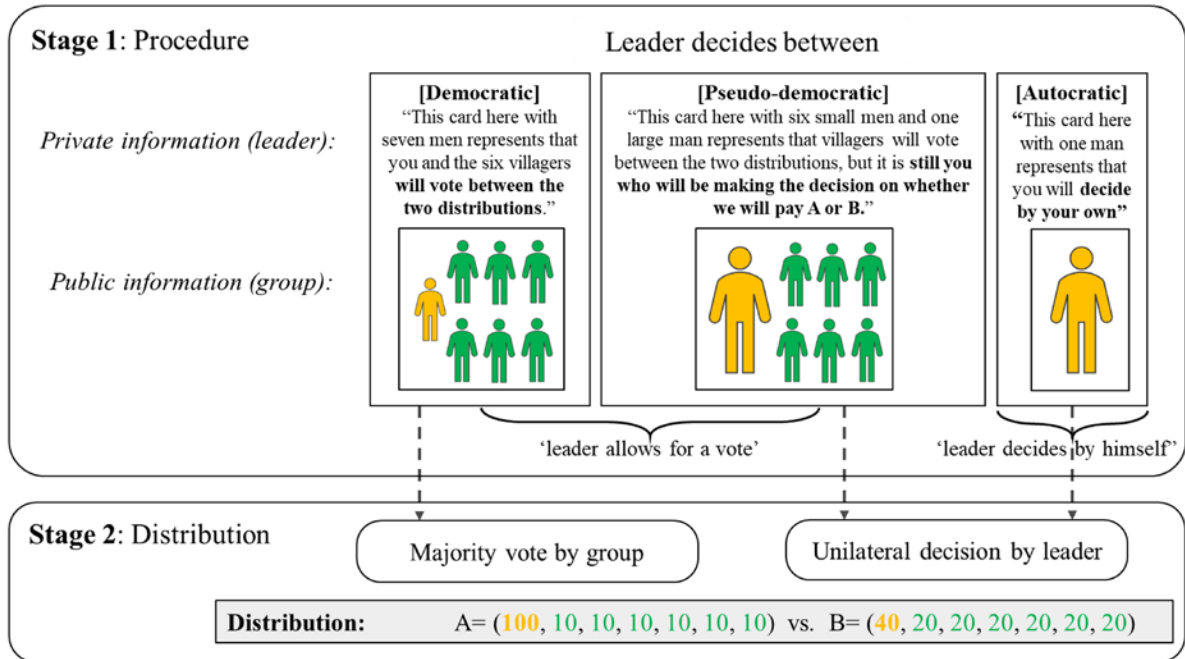
Ohangwena is one of the poorest areas in Namibia where people mostly live in rural areas and subsistence farming is the main source of livelihoods (Namibian Statistics agency 2016). In our sample, about one-third of participants state agriculture and livestock production as their main source of income and almost every household is engaged in some kind of subsistence agriculture and owns some goats and chicken. In terms of the socio-economic composition of our sample, we see that both chiefs ($F_{(7, 386)}=29.30$, $p=0.00$) and DELs ($F_{(7, 385)}=4.80$, $p=0.00$) are significantly wealthier and older than the average villager and chiefs tend to be less educated compared to both villagers and DEL. Chiefs also significantly differ from DELs, as they are more likely to be male (Steimanis et al. 2020), older and wealthier ($F_{(11, 51)}=4.42$, $p=0.00$). Regarding leader specific variables, we find substantial variation in leadership experience, dependent on the type of leader. Chiefs, which are appointed for a lifetime, have an average experience of 17 years, while DELs have about 8 years of experience. For details regarding comparison of the socio-economic characteristics between leaders and villagers, see Supplementary Material Table S2.

3.EXPERIMENTAL DESIGN

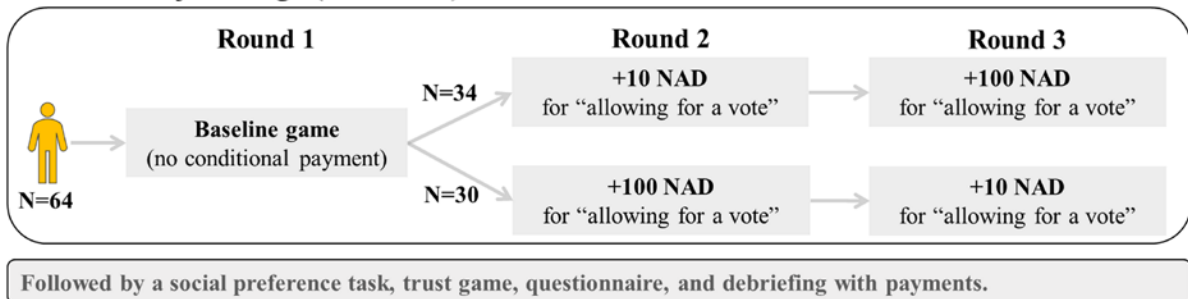
We designed a two-stage decision task to measure leaders' preferences for democratic decision making. We are especially interested in how the introduction of conditional payments changes leaders' democratic preferences and therefore always started with the baseline game without payments (round 1) before introducing conditional payments (rounds 2 and 3). Within our setting, we can control for background factors and observe leaders' behavior in the same decision environment under *ceteris paribus* conditions. The task is played in groups of seven, including one leader and six villagers over three rounds (see Figure 2). In Stage 1 of the baseline game, leaders decide first between three procedural rules of decision-making (*democratic*, *pseudo-democratic*, or *autocratic*) on how to distribute a monetary allocation between villagers and the leader. In Stage 2, one of two money distributions, A {N\$100 leader, N\$10 each villager} or B {N\$40 leader, N\$20 each villager}, is selected depending on the rule that the leader chose in Stage 1. The total sum of payments in each distribution (160N\$) is held constant to rule out efficiency concerns.

Figure 2. Procedural fairness task

A Procedural fairness task (Round 1)



B Within-subject design (Round 1-3)



Notes: The numbers in the grey box refer to monetary amounts in Namibian dollars. The first amount in orange goes to the leader; the following six go to the villagers. Details on the field implementation, including the order of experimental tasks which are not included in this manuscript are reported in Supplementary Material Section S1.

The six villagers vote in private for their preferred allocation A or B using the strategy method (Selten 1967), which ensures that we have data on their preferred allocation independent of the rule choice of leaders in stage 1. Under the democratic rule, the allocation that receives four or more votes is implemented, and the respective outcomes are paid to the leader and villagers. Thus, under the democratic rule the result of the vote is binding. The autocratic rule allows the leader to decide in stage 2 on her own which of the allocations will be paid out, knowing that it is communicated to the villagers that the leader “decided on her own without considering their votes”.

Finally, under the pseudo-democratic rule, the villagers vote on their preferred distribution, but the leader alone (without knowing the result of the vote) decides in stage 2 which allocation will

be paid out to the group. If the leader chooses the democratic or pseudo-democratic rule, the villagers are informed that the leader “allows for a vote”. The instructions for villagers made clear that if the leader “allows for a vote”, she can choose to follow the choice of the majority but may not (and thus there was no deception to villagers nor leaders). The pseudo-democratic option lets the leader decide on her own regardless of the villagers’ vote while maintaining a democratic image to their constituents, as villagers cannot assess whether a distribution was implemented by the leader’s decision or by a fair vote.⁵ For brevity, we refer to leaders choosing the democratic rule in the baseline setting without conditional payments as “democrats”, to leaders choosing the pseudo-democratic rule as “pseudo-democrats” and to leaders choosing the autocratic rule as “autocrats”.

In sum, this experimental design confronts the leader with the choice of whether to follow a democratic procedure when risking a personal lower payoff – they had to take the Stage 1 decision without knowing the outcome of the vote from Stage 2, which could be unfavorable to them under a majority vote.

3.1. TREATMENTS

In a within-subject design, leaders make three rule and distribution decisions, see Figure 2 panel B.⁶ After the baseline, we offer leaders payments conditional on them “allowing for a vote” in the procedural choice (stage 1). Thus, the payment is conditional on leaders choosing the democratic or pseudo-democratic rule, independent of a leaders’ decisions on distribution A or B in stage 2. Making the payments conditional on “allowing for a vote” captures the key attributes of real-life settings where payments, for example, are often based on observable actions, like holding elections, as agencies cannot easily assess whether the process indeed led to more community involvement satisfying all gold standards of democracy.

In the *baseline*, the leader chooses in the decision setting with no conditional payment. In the *small bonus treatment*, the leader receives a conditional payment of 10N\$ for allowing for a vote. The *small bonus* can be interpreted as a symbolic payment because the 10N\$ does not compensate the leader for the (expected) loss of 60N\$ in case allocation B instead of A is implemented in stage 2. In the *large bonus treatment*, the leader receives a conditional payment

⁵ They can neither infer it from the payments, because their final payout consists of payments for several tasks and a show-up fee.

⁶ Leaders made an additional 3 decisions with different distributions A and B to elicit other motivations (equity, envy, spite) for procedural fairness for a total of six decisions. The results on these distributions are reported in (Vollan et al. 2020).

of 100N\$. The *large bonus* more than covers for the (expected) loss of 60N\$. Participants always started playing without conditional payments, as the main objective was to test the introduction of a conditional payment, i.e. introducing a change in the institutional status quo where leaders are not monetarily incentivized to allow for voting. Given the sample size constraints (only 2 observations of main interest per village), we opted for focusing on the *introduction* of payments and not their *removal*. The order of the treatment rounds was randomized to control for potential sequencing effects of offering the large bonus before the small one and vice-versa (see Supplementary Material Figure S3 and Table S4). Leaders were informed before taking their decisions, that only one of the rounds would be randomly selected to be relevant for payoff at the end of the workshop by rolling a die.

Based on our sample of 64 leaders and the observed correlation of rule choices between baseline and the first conditional payment (correlation=0.39), we can calculate the minimal detectable effect sizes (MDES). We are powered to detect changes in democratic rule choices of 18 percentage points at conventional levels at conventional level (alpha of 0.05 and 80% power). This is a conservative approach to determine MDES, as we only use the data from baseline and response to the first conditional payment. For details on power calculations, see Supplementary Material Section S3.1.

3.2. BEHAVIORAL CONJECTURES

The primary focus of our intervention is to foster inclusive decision-making. Ideally, one would be able target conditional payments to those leaders who are not yet truly democratic, but given information asymmetries of leaders' procedural choices, one often cannot distinguish democrats from pseudo-democrats. We have one main conjecture centered around the causal effect of introducing conditional payments in reducing autocratic choices: That is, we expected the conditional monetary incentive to reduce autocratic choices. Such treatment effect would result from the leaders choosing autocratic decision-making in the absence of payment refraining from choosing the autocratic rule in settings with conditional payments. For self-interested payoff-maximizing leaders, this would entail a switch to pseudo-democracy to get the conditional payment, while they can keep the decision-making power. This would allow them to still choose their preferred allocation, and maximize their earnings (using backward induction, at 100 NAD from choosing the allocation A in stage 2, and additional 10 NAD or 100 NAD from the conditional payment). Democratic and pseudo-democratic leaders considering the monetary

conditional incentive of these payments would not change the optimal strategy, as it reinforces the monetary appeal of their preferred procedure.

Conjecture 1: *The share of leaders opting for the autocratic rule in the decisions with conditional payments is reduced as compared to baseline choices without.*

Yet, leaders may not only care about the outcome of the decision-making process but also their self-image, interpret the conditional payments beyond their monetary value, or simply value the procedural fairness of the process itself. In the following, we provide an exploratory discussion of how such considerations and signaling effects by the conditional payments may affect leaders, entailing heterogeneous responses.

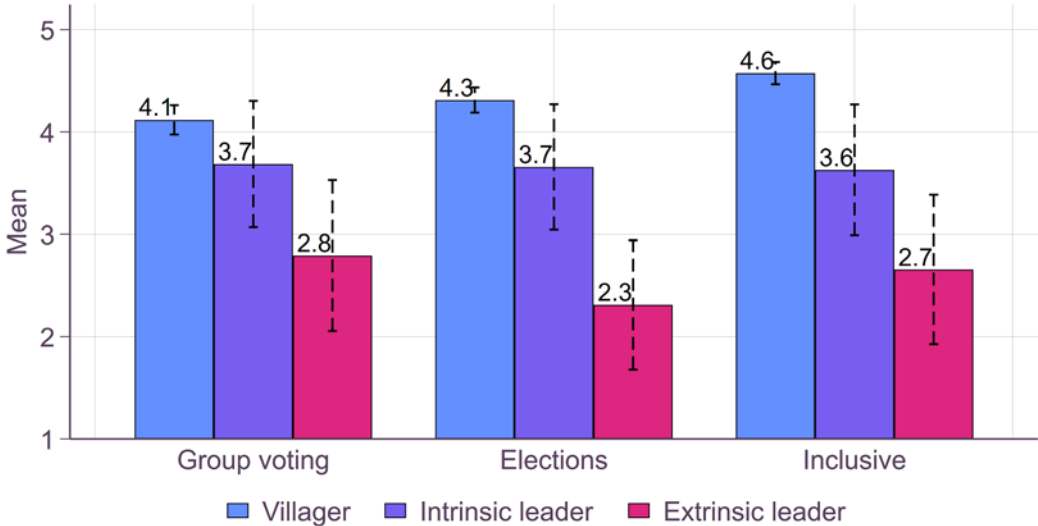
To explore heterogeneous responses to the conditional payments, we apply the social norm framework proposed by Bicchieri and Dimant (Bicchieri 2010; Bicchieri and Dimant 2022). Central to the framework is the recognition that designing effective interventions requires an understanding of the underlying nature of why people are engaging in the targeted behavior. This understanding is contingent upon whether the behavior is socially independent or interdependent. Behaviors that are independently motivated stem from personal preferences and morality, unaffected by external normative and empirical expectations. In contrast, the concept of a social norm, as defined by Bicchieri and Dimant (2022), emphasizes adherence to a behavior due to both the belief that others within one's reference network conform to the norm (empirical expectation) and the expectations by others that one should conform to it (normative expectation). Hence, a behavior driven by a social norm is conditional on both types of expectations being present. Thus, the social norm conceptualization brought forward by Bicchieri and Dimant (2022) provides us with a workable framework to analyze how different types of leaders – depending on baseline behavior and motivations to run for office – will respond to the conditional payments. Further information on the social norm framework is provided in Supplementary Material Section S2.

Initial preferences for engaging in the targeted behavior can vary between leaders in the absence of conditional payments. For some leaders, inclusive decision-making might be *independent* of both empirical and normative expectations, driven purely by personal moral values and preferences. In such cases, embracing inclusive processes is a moral norm or custom. Conversely, if inclusive decision-making is *interdependent* on empirical expectations, it would be a descriptive norm and if additionally normative expectations matter, inclusive decision-making would be a social norm. We use leader's answers to an open question about their

motivation for leadership as a proxy for their interdependency in decision-making. Classification of leaders as more intrinsic or extrinsic in their motivation follows the definition by Frey & Oberholzer-Gee (1997). Details on the classification of leaders are reported in Supplementary Material Section 3.6.

The assumption that this classification of leaders is indicative of the potential interdependency of their procedural choices is supported by our survey findings regarding normative expectations related to group decision-making (see Figure 3). Intrinsically motivated leaders demonstrate no significant variation from villagers in their normative expectations regarding group voting ($d=0.43$, $p=0.11$). In contrast, extrinsically motivated leaders exhibit notably lower support for group voting compared to villagers ($d=-1.32$, $p<0.01$) and intrinsically motivated leaders ($d=-0.89$, $p=0.02$). Thus, leaders differing in their motivations to govern (intrinsic vs. extrinsic), could respond differently to the introduction of conditional payments. This dichotomous definition is obviously a simplification, as in reality the motivations to govern would for most leaders naturally lie on a continuum between these two extremes. Nevertheless, as we will show in the analysis, this dichotomous measure allows us to capture some systematic heterogeneous treatment responses by leaders, as shown in the results section.

Figure 3. Normative expectations regarding group decision-making



Group voting=‘For important decisions members of a group should be allowed to vote.’
Elections=‘Democratic elections in this village ensure that the elected authorities act in the interest of their people’
Inclusive=‘A leader has to serve all people including those who did not vote for him/her or are not friends.’

Notes: Leaders and villagers rated their agreement with the statements on a 5-point scale, ranging from ‘1=strongly disagree’ to ‘5=strongly agree’.

Lastly, we will explore leaders’ sensitivity to the size of conditional payments. Extensive empirical evidence suggests that the size of monetary incentives affects their efficacy in inducing behavioral change (Ariely, Bracha, and Meier 2009; Gneezy, Meier, and Rey-Biel 2011; Gneezy and Rustichini 2000b). The phenomenon suggests that small incentives often undermine

psychological motivations, failing to achieve the desired behavior change – summarized in the motto ‘pay enough or don’t pay at all’ (Gneezy and Rustichini 2000b). The smaller incentive might carry a weaker normative signal and lower psychological costs with non-compliance than the larger payment. Conversely, the larger incentive is likely to convey a stronger empirical signal. The size of the conditional payment could evoke different levels of crowding-in or crowding-out based on the relative weight of both signals and invoked psychological costs.

4.RESULTS

Even though democracy is largely preferred to any other form of government by Namibians (see Figure 1), democratic principles are not widely upheld by leaders in everyday local governance. Examining the key democratic practice of holding anonymous, regular, and competitive elections, pertaining to the DEL position, reveals deviations from the ideal standard: Anonymity was observed in only 13% of cases, competition was absent in 28% of cases, and tenure averaged a lengthy 8 years—far exceeding the government's recommended election frequency of every 3 to 4 years. These discrepancies highlight the variation among leaders in embracing inclusive group decision-making and leave room for improvements through introducing conditional payments.

In the baseline round without payments, 64% of leaders opt for the democratic rule. More chiefs (72%) chose the democratic rule than DEL (56%), yet not significantly (Probability Test $\Delta=0$, $z=1.30$, $p=0.19$). As the majority of leaders opted for the democratic rule in the absence of payments, this behavior is in line with normative expectations regarding inclusive decision-making by villagers (see Figure 3). The high prevalence of democratic rule choices is consistent with the normative expectations in the leaders’ reference network and hints at the existence of a social norm for group voting in important village decisions. Yet, there are still one-third of leaders not allowing their villagers to vote, which we aim to strengthen with the introduction of conditional payments.

Result 1: *The majority of leaders (64%) opt for the democratic rule in the absence of payments.*

We start with the analysis related to average treatment effects. We then continue with an explorative analysis based on the adopted social norms framework which suggests heterogeneous effects depending on (i) baseline choices and (ii) interdependency of allowing for group voting. Lastly, we report suggestive evidence regarding the external validity of our findings from a survey conducted with the villagers on their satisfaction with the performance

of their leaders. We focus on stage 1 decisions and treatment effects. Stage 2 results on distributional choices of leaders and villagers and how conditional payments affected which distribution was implemented are reported Supplementary Material Section 3.8.

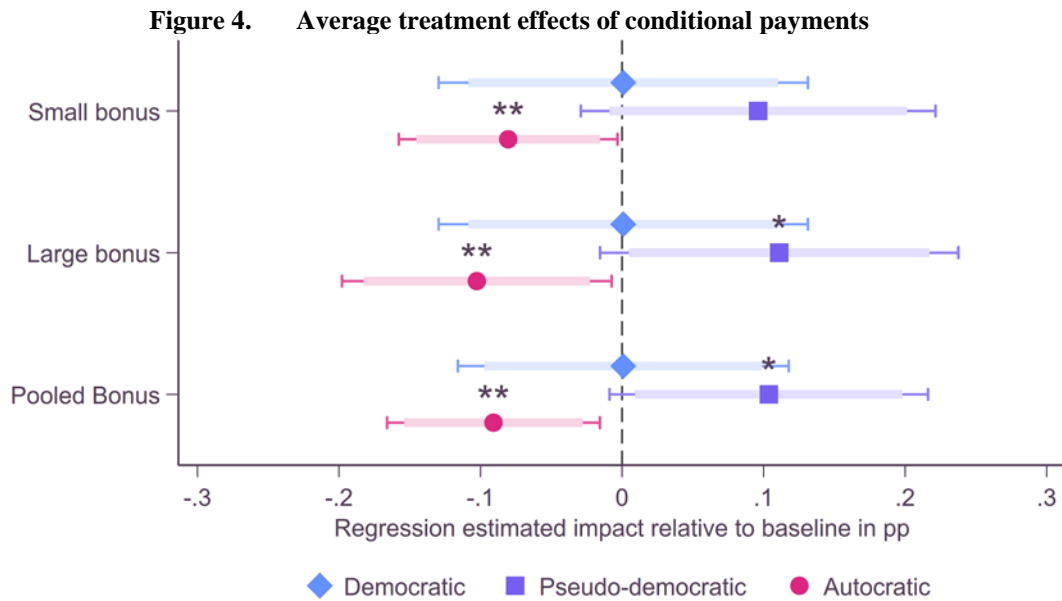
4.1. MAIN TREATMENT EFFECTS

We start by analyzing the average effect of introducing conditional payments for group voting across both treatment rounds pooled and separately for the small and large conditional payment. Results on rule choices are plotted in Figure 4. After introducing conditional payments, leaders are 9 percentage points (pp) significantly less likely to choose the autocratic rule than without payments ($\beta=-0.09$, $p=0.02$, $95CI=-.17, -.02$). These findings are consistent with our main conjecture that leaders will refrain from the autocratic rule to capture the conditional payments. The decrease in autocratic rule choice comes, as one could expect, at the expense of an increase in pseudo-democratic rule choices by about 10 pp ($\beta=0.10$, $p=0.07$, $95CI=-.01, .22$).

Result 2: *The share of autocrats is significantly lowered after introducing conditional payments compared to the baseline. There is at the same time an increase in the appearance of democracy.*

The introduction of conditional payments does not, however, increase the usage of truly democratic decision-making. On average, as many leaders choose the democratic rule without conditional payments as after introducing them ($\beta=0.00$, $p=0.99$, $95CI=-.12, .12$).

Result 3: *Introducing conditional payments does not significantly change the share of true democrats.*



Notes: Average marginal effects from panel Probit regressions with 95 percent (thin lines) and 90 percent (thick lines) confidence intervals are plotted. In all models, we control for order effects. The stars indicate whether differences are statistically significant at the following levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The full regression outputs (Table S5), robustness checks using multilevel panel regressions (Table S7), and multinomial Probit models (Table S8) are reported in the Supplementary Materials, Section S3.5. We find no significant differences in how chiefs react to the bonus payments compared to DELs (see Supplementary Material Table S6).

We find that introducing both small and large payments are equally effective in motivating leaders to switch away from the autocratic rule ($d=0.02$, $p=0.60$, $95CI=-.11, .06$). Thus, even a small symbolic payment is enough for leaders to refrain from the autocratic rule. However, we find no evidence that the larger payment, potentially carrying a stronger normative signal and psychological costs of not conforming to it, leads to a significantly higher share of leaders adopting the democratic rule ($d=0.00$, $p=0.99$, $95CI=-.12, .12$). Thus, both conditional payments lead to similar ($d=0.02$, $p=0.80$, $95CI=-.10, .13$) increases in leaders only appearing to be democratic.

Result 4: *There are no statistical differences in rule choices after introducing the small and large conditional payment.*

We run equivalence tests (Lakens et al. 2018) to determine the size of effects for which to interpret the statistically (non-)significant differences in rule choices between baseline and incentivized rounds. We set the equivalence bounds, i.e. the smallest effect size of interest induced by the conditional payments, to 18 pp based on the ex-post conservative calculations of MDES. Equivalence testing confirms that the reduction in autocratic rule choices is larger than 18pp while the effect on democratic rule choices is statistically equivalent (not larger than 18 pp). More data would be needed to draw conclusive evidence regarding the effects for pseudo-democratic rule choices. Regarding the size of the conditional payment, we can at least rule out

any differences between the small and large payment that are bigger than 18 pp. For details on equivalence testing, see Supplementary Material Section S3.1.

4.2. EXPLORATORY ANALYSES

This section present additional empirical analyses of heterogenous responses to conditional payments building on the social norms perspective by Bicchieri and Dimant (2022) and survey results related to villager's satisfaction of leaders. We first present descriptive analyses of leaders' general motivations to govern elicited prior to the experiments. Then systematic differences in treatment responses are analyzed depending on leader's baseline choices and intrinsic motivations. For details of this classification see Supplementary Material Section S2.

4.2.1. MOTIVATIONS TO GOVERN

While both chiefs and DELs receive no direct monetary compensation for doing their job, these are still influential positions which are associated with social benefits and sometimes monetary benefits.⁷ Thus, one can expect leaders varying in their motivations to govern. In some villages there was no competition for the DEL position and candidates “just accepted” their community's decision but in other villages DELs were highly intrinsically motivated to improve the quantity and quality of water supply to their communities. Similarly, chiefs have no say in whether they become the next chief, but some have a strong sense of civic duty cultivated from early childhood.

Behaviors related to intrinsic motivations are undertaken by people because of intangible benefits such as enjoyment or satisfaction from engaging in it. Extrinsic motivation refers to the drive to engage in an activity because of external factors, such as rewards, punishments, recognition, or other tangible outcomes. We classify 55% (n=35) leaders as mainly intrinsically motivated and 45% (n=29) as mainly extrinsically. DELs are 22 percentage points more likely to be classified as intrinsically motivated than chiefs (Probability Test $\Delta=0.22$, $z=1.76$, $p=0.08$).

As an internal consistency check, we compare our binary categorization of leaders on the authentic leadership scale (Walumbwa et al. 2008). The score is based on 12 Likert-type items

⁷ None of the DEL reported any significant formal compensation such as wages or travel allowances and only one reported to have an improved financial situation Chiefs for example can collect fees from allocating grazing lands or for the opening of small businesses like bars and grocery shops. Over one-third of DELs state that they consider themselves as the most influential person in the village from a list of local authorities including the chief, local councilor and pastor. Indeed, it is intuitive that being in control of the water supply in a context where most people depend on subsistence farming is a position of power. Social benefits of holding office, however, are substantial. These are increased popularity among villagers, increased status within the community or even better connections to people outside the village (30 out of 32 DEL agree with all of these statement).

aimed to measure three important dimensions of leadership: balanced processing of information, a strong moral perspective, and relational transparency. Balanced processing refers to an individual's ability to analyze information objectively and explore other people's opinions before making decisions. The moral perspective dimension refers to a self-regulatory process, whereby individuals use their internal moral standards and values to guide their behavior rather than to allow outside pressures to control them. Lastly, relational transparency refers to being open and honest in presenting one's true self to others. The score is the simple average across the three dimensions, ranging from 4 to 16. Higher values imply that a leader is more concerned about these dimensions. Intrinsically motivated leaders reported, on average, a significantly higher score (Mean=11.28, SD=3.9, N=35) than did extrinsic motivated leaders (Mean=9, SD=4.17, N=29), $t_{62}=2.26$, $p=0.03$). This speaks to the internal validity of our leader classification where intrinsically motivated leaders are also more transparent in their decision-making and are more guided by moral considerations. This could in turn entail differences in normative expectations about group voting between internally and externally motivated leaders. Further details on this classification are reported in Supplementary Material Section 3.6.

4.2.2. HETEROGENEOUS TREATMENT EFFECTS FROM MOTIVATIONS TO GOVERN

To understand heterogeneities in leader's individual responses to the conditional payment, we apply the social norm's perspective discussed in section 3.2 to our data. Taking into consideration the behavior of leaders in the baseline game without conditional payments and the conditionality of their behavior proxied by their motivations to govern (see Table 1), we can separately explore whether observed behaviors in response to the first conditional payment⁸ are consistent with the discussed social norms motivations.

For leaders classified in Box I we observe that the vast majority (10 out of 12) do not change their behavior, while two leaders switched to the democratic rule, consistent with a relevance for them of guilt aversion or some psychological effect at play. For leaders in Box II, we see that while many still do not change their behavior (16 out of 23), there is a larger share (30%) that switched from the democratic rule to more autocratic alternatives with the introduction of the conditional payment. This is consistent with crowding-out for this 30% of leaders in Box II.

For leaders categorized into Box III, we expected two opposing signaling effects: normative and empirical expectation signal. Most of these leaders (7 out of 11) displayed responses consistent

⁸ For this analysis, we focus only on leaders' decision in response to the first payment they were offered, as we did not find any differences between the small and large bonus payment and the random ordering of treatments might create path-dependencies in the within subject design (see Supplementary Material Figure S2).

with the normative signal outweighing the empirical signal, as they switched to the democratic rule, giving up decision-making power. This is consistent with crowding-in for this 64% of leaders in Box III. At the same time, for the 18 leaders in Box IV we find some evidence of crowding out, while the majority (15 out of 18) do not change behavior with the conditional payments. Specifically, 17% of leaders in Box IV switched from democratic to a pseudo-democratic rule, consistent with an influence of the empirical signal.

In sum, these descriptive results show that introducing conditional payments is most effective for leaders in Box III, as expected based on the discussion in section 3.2.

Table 1. *Observed crowding effects of conditional monetary incentives in the experiment.*

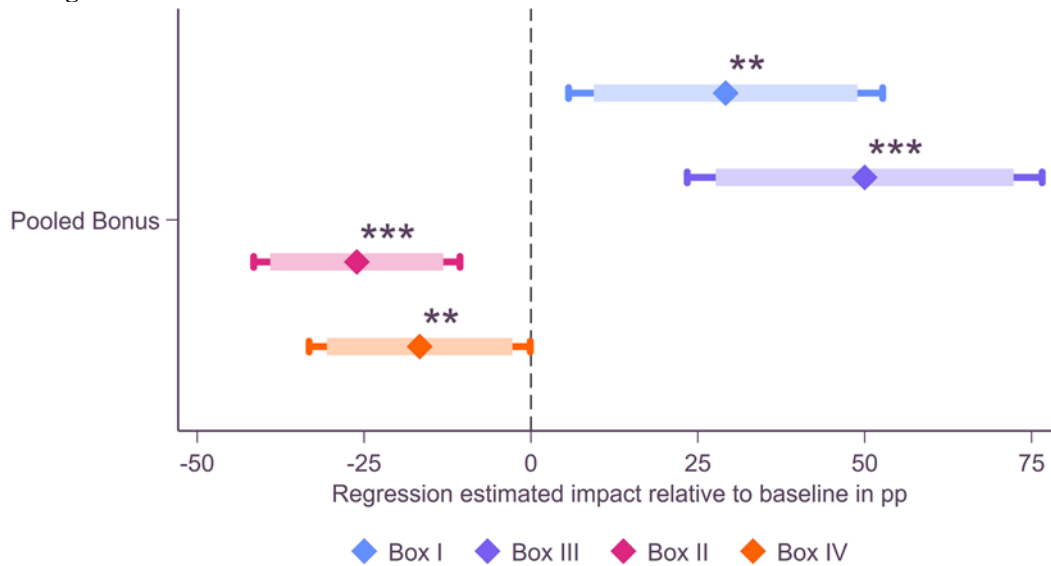
	Baseline: pseudo or autocratic rule (n=23)	Baseline: democratic rule (n=41)
Intrinsic motivation (n=35)	Box I (n=12) Remain: 83%, 10/12 (1 autocratic) Crowding-in: 17%, 2/12	Box II (n=23) Remain: 70%, 16/23 Crowding out: 30%, 7/23 (1 autocratic)
Extrinsic motivation (n=29)	Box III (n=11) Remain: 36%, 4/11 (all pseudo) Crowding-in: 64%, 7/11 Normative signal > empirical signal	Box IV (n=18) Remain: 83%, 15/18 Crowding out: 17%, 3/18 (all pseudo)

Notes: Response to first conditional payment independent of the size.

To quantify these descriptive patterns, we estimate the effect of the conditional payments (both small and large pooled together) separately for each subsample as described in the boxes of Table 1. Results are plotted in Figure 5 and confirm the behavioral patterns found in response to the first conditional payment. For leaders opting for non-democratic rules in the absence of incentives (pseudo or autocratic at baseline), we find evidence for crowding-in. Leaders in Box I are 29 pp more likely to be truly democratic with the introduction of conditional payments compared to the baseline ($\beta=0.29$, $p=0.015$, $95CI=.06, .53$) and those in Box III even by 50 pp ($\beta=0.50$, $p=0.00$, $95CI=.23, .77$). Thus, crowding-in is more pronounced in Box III compared to Box I, despite not significantly different ($\text{Chi}^2(1)=2.51$, $p=0.11$).

On the other hand, for leaders opting for the democratic rule in the absence of incentives, we find evidence for crowding-out. Leaders in Box II are 26 pp less likely to be democratic with conditional payments ($\beta=-0.26$, $p=0.00$, $95CI=-.41, -.11$) while leaders in Box IV are 17 pp ($\beta=-0.17$, $p=0.06$, $95CI=-.34, .00$). Crowding-out is slightly more pronounced in Box II than in Box IV but not significantly different ($\text{Chi}^2(1)=1.37$, $p=0.24$).

Figure 5. Likelihood to choose democratic rule across the four boxes of Table 1



Notes: Plotted are the results from four multilevel panel regressions that account for the grouping structure of the data at the individual level (random intercept). The dependent variable in all models is whether the leader opted for the democratic rule. 95 percent (thin lines) and 90 percent (thick lines) confidence intervals are shown. In all regression models, we control for order effects. The stars indicate whether differences are statistically significant at the following levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Full regression outputs are reported in Supplementary Material Table S9, while Figure S5 and Table S10 show the robustness check using a median split based on the authentic leadership scale.

Result 5: *We find systematic heterogeneous responses to the introduction of conditional payments based on leaders' choices for democracy in the absence of conditional payments and their motivations to run for office. Conditional payments are most effective for leaders initially avoiding democracy whose motivations are extrinsic (Box III).*

In sum, while the intended positive effects of conditional payments are possible in some sub-groups, caution is needed, as the intervention may yield undesired effects for others. We observe a systematic heterogeneous impact of introducing conditional payments depending on initial motivations to govern and leaders' initial preferences to allow for a vote in the absence of payments. Up scaling the introduction of conditional payments may prove particularly ineffective in settings where there is a relatively high initial share of democrats or intrinsically motivated leaders.

4.2.3. VILLAGERS' SATISFACTION WITH LEADERS

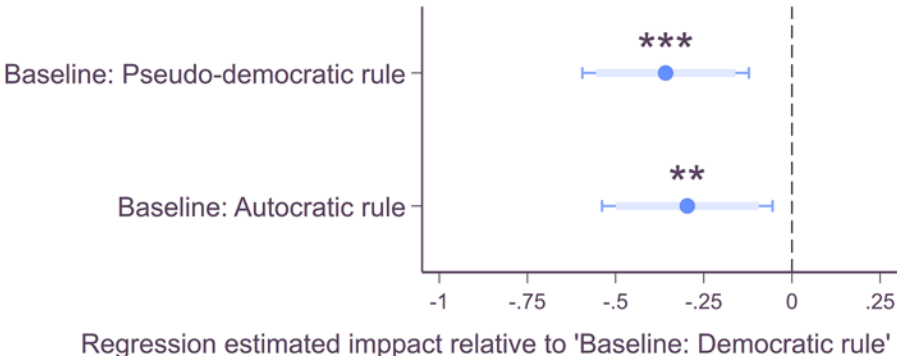
One concern with behavior observed in experiments is that it might not provide reliable inferences about leaders' real-world behavior, i.e. their external validity or generalizability to other contexts. As related to our study, the most important concern arises from the artificial decision-setting in the procedural fairness task, the so-called 'naturalness' of the choice task (J. List 2020). To address this concern, we correlate leaders' rule choices in the baseline procedural

fairness tasks with villagers’ satisfaction with their leaders. We measured villagers’ satisfaction with a battery of Likert-type items asking about general satisfaction with the leaders, leaders’ competence and fairness in decision making. At the time, participants did not yet get the information of whether the leader they played with in the experiment allowed for a vote or not. Thus, their leader evaluation could not have been influenced by this.

We find that leaders’ rule choices in the baseline procedural fairness task correlate with leaders’ satisfaction as reported by the villagers, see Figure 6. Villagers are significantly less satisfied with baseline pseudo-democrats ($\beta=-0.36$, $p<0.01$, $95CI=-0.59, -0.12$) and autocrats ($\beta=-0.30$, $p=0.02$, $95CI=-0.54, -0.06$) compared to baseline democrats. Thus, there is a link between leaders’ behavior in the experiment and real-life, given that villagers widely prefer group voting and would be less satisfied with leaders not allowing them to do so (see Figure 3).

We interpret these correlations as an indication that the behavior in the game by leaders relates to the perceptions that constituents have of their leaders. However, as a word of caution, this should not be interpreted as evidence that the responses to the introduction of conditional payments will generalize when scaled-up outside the experimental field setting. This would require further studies with larger sample sizes, providing a deeper understanding of the magnitude of effects, and specific features of the experimental designs to identify the mechanisms behind them.

Figure 6. Villagers’ satisfaction with their leader’s performance outside the lab



Notes: Villagers’ satisfaction with different leader types based on OLS estimates of the satisfaction index with village fixed effects. The index (range 1.4 to 5) is based on eight Likert-type items for traditional authorities (overall satisfaction of performance, promises kept, fair allocation of grazing land, fair solutions in case of conflict, equal treatment of people in the court, takes appropriate actions against people who disobey rules, takes decision in an understandable manner, does not exploit his position) and five items for democratic leaders (general satisfaction of performance, repairs undertaken quickly, takes decision in an understandable manner, takes appropriate actions against people who wrongly report water consumption, does not exploit his/her position). The stars indicate whether differences are statistically significant at the following levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

5. DISCUSSION & CONCLUSION

This study contributes to the rich literature on the local governance of common pool resources by investigating mechanisms to improve procedural fairness by local leaders in rural Namibia ruling over land and water allocation. In the semi-arid region of Ohangwena, the decision on these two domains highly conditions the livelihoods of the local users of natural resources. One of democracy's core objectives is to curb exploitative behavior by elites through restricting their ability to prioritize self-interest over the welfare of their constituents. As a result, various policy measures have tried to promote democratic norms and practices, particularly in regions traditionally governed by different systems. Conditional payments for democratization have gained popularity as one such policy.

In this study, we present causal evidence of the impact of introducing monetary incentives on real-life local leaders for the management of water and land, encouraging them to either genuinely adopt democratic decision-making procedures or merely pretend to do so. Within a context of pluralistic governance, we find that the majority of leaders (64%) have a preference for democratic decision-making even when it can carry personal costs. Upon the introduction of conditional payments for 'allowing for a vote,' leaders are notably less likely to opt for the autocratic rule and instead project a more democratic façade (pseudo-democratic rule). However, the proportion of genuinely democratic choices remains unaltered with the introduction of conditional payments. Thus, in a context where there is asymmetric information between the agency introducing conditional payments and leaders regarding the quality of voting processes, introducing conditional payments may not guarantee an increase in truly democratic practices.

Our explorative analyses of heterogeneous responses to the conditional payments align with the conjectures derived from the social-norms framework developed by [Bicchieri and Dimant \(2022\)](#). We observe that both baseline democrats and autocrats exhibit behavioral shifts in response to payments, with baseline democrats moving away from the democratic rule and baseline autocrats adopting it. Notably, conditional payments are most effective in motivating extrinsic leaders to embrace true democracy (Box III). However, it must be noted that in absolute terms, conditional payments did not result in a higher number of leaders opting for the democratic procedure. This is primarily due to the fact that there were initially twice as many baseline democrats (n=41) as there were pseudo-democrats and autocrats combined (n=23). Therefore, when viewed in relative terms, we do observe a larger proportion of leaders shifting towards democratic rules than away from them.

Our findings complement prior literature on the local governance of natural resources (e.g. [Ostrom 2006](#); [A. R. Poteete and Ostrom 2008](#); [A. Poteete, Janssen, and Ostrom 2010](#); [Noussair and van Soest 2014](#); [Cárdenas 2015](#); [List and Price 2016](#)) and on enforcement of norms through mechanisms such as monetary punishment, ostracism and rewards ([Fehr and Gächter 2000](#); [Sigmund, Hauert, and Nowak 2001](#); [Andreoni, Harbaugh, and Vesterlund 2003](#); [Walker and Halloran 2004](#); [Balafoutas and Nikiforakis 2012](#); [Balafoutas, Nikiforakis, and Rockenbach 2014](#)). It also complements studies carried out in adjacent areas in Namibia on norm enforcement. Previous results show that a significant share of those that were punished by peers when being uncooperative reacted with vengeful punishment ([Vollan et al. 2019](#)). Given these negative reactions from peer-punishment to norm adherence, it is particularly relevant to consider alternatives for strengthening the rule of law ([Herrmann, Thöni, and Gächter 2008](#)) through legitimate leadership. Our study complements this research by analyzing whether conditional payments can encourage real-life leaders managing natural resources to adhere to the social norm of democratic procedures. Our heterogenous results show that conditional payments could be important in communities where leaders currently do not embrace democratic procedures. In such cases, the incentives could ensure that more resource users with their varied interests are included in the decision-making related to the sustainable management of the natural resources, while also increasing transparency of the process and accountability of leaders. Ultimately this could also strengthen democratic norms in the whole society through “prestige-based learning” ([Jiménez and Mesoudi 2019](#)) or leading by example ([Jack and Recalde 2015](#)).

We present evidence for a country in the Global South (Namibia), typically underrepresented in studies on the diffusion of social norms. Thus, since previous literature suggests that there are cultural variations in the adherence to and enforcement of social norms ([Gelfand et al. 2011](#); [Gächter and Schulz 2016](#)), providing cumulative evidence for non-Western cultures is one contribution of this study. Yet, future research should test the robustness of these findings to other regions of the world where democracy is not yet the prevalent social norm, ideally undertaking larger studies to draw more precise estimates of the magnitude of effects. Specifically, our results contribute to the understanding of how introducing monetary incentives can foster social norms ([Gross and Vostroknutov 2022](#)) in non-WEIRD societies ([Henrich, Heine, and Norenzayan 2010](#)). Empirical studies in social psychology and economics point to how payments can sometimes lead to undesired consequences by crowding-out non-monetary motivations to engage in pro-social behaviors ([Bénabou and Tirole 2006](#); [Bowles and Polanía-Reyes 2012](#); [Deci, Koestner, and Ryan 1999](#); [Titmuss 1970](#)). Such crowding-out effects are well

documented across a variety of situations, for instance, payments reduce blood donations among women (Mellström and Johannesson 2008), fines increase late kindergarten pick-ups (Gneezy and Rustichini 2000a) and length of hospital stays (Holmås et al. 2010), and are sensitive to the amount being offered (Gneezy and Rustichini 2000b). Yet, these negative effects of incentives on intrinsic motivation have not been documented outside the Global North, at least in conservation contexts (Vorlaufer et al. 2023; Blanco et al. 2023; Moros, Vélez, and Corbera 2019).

While our experimental results provide important insights into how leaders responsible for managing local common pool resources make group decisions, it is important to note that democracy is a complex concept that goes beyond simple binary choices of allowing for a vote or not as in the experimental task. Moreover, in day-to-day operations of local leaders, there are better checks and balances in place to ensure compliance with democratic norms than those considered in the experimental task, even though they may be imperfect. Nevertheless, our experiment provides a valuable tool for studying leaders' motivations and preferences in a simplified decision-making environment. It is also worth noting that the evaluation of democratic performance is not always straightforward, as there is often a lot of grey area between being purely democratic and autocratic. In our experiment, leaders cannot blame external events, the media or the opposition as potential reasons for delayed progress in democratization as all leaders face the same decision environment and we can unambiguously observe their rule choices reflecting their motivation and preferences. Nevertheless, the fact that villagers reported higher satisfaction with leaders who chose the democratic rule in the absence of payments demonstrates that our simplified experimental task captures important democratic features that people value in their leaders. These results are in line with evidence showing that people cooperate more with each other if leadership is inclusive (Dal Bó, Foster, and Putterman 2010) and have higher satisfaction with outcomes derived from inclusive decision-making processes (Olken 2010).

We focused in this study on local governance for the management of natural resources and our results should be understood within this context. Furthermore, our results may not be generalizable to other localities where democratic procedures are deeper rooted or settings where traditional authorities are not embedded in a pluralistic system of governance with democratically elected leaders. Despite the emphasis on democratization at the local level by international aid agencies, effectively convincing leaders to adopt democratic procedures in regions where a long-shared history of democratic principles is lacking continues to be a

challenge. Out of fear of elite capture, many environment and development agencies try to avoid using pre-existing institutions but thereby forego important knowledge, networks and skills that local leaders have (Alatas et al. 2012; Mansuri and Rao 2012) and instead create oftentimes new parallel institutions that might be harmful to the social dynamics in the communities (Manor 2004; Vollan 2012).

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SUPPLEMENTARY ONLINE MATERIALS FOR:

Conditional Payments for Democracy to Local Leaders for the Management of Natural Resources in Rural Namibia

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S1. STUDY IMPLEMENTATION

We received permission and support by the Ohangwena regional council (responsible for the entire Ohangwena region) to run our study in all four constituencies, we could not get hold of the regional councilor of Engela constituency (we visited his office three times, but he was never there). Therefore, we decided to replace the seven randomly selected villages in Engela with the first seven villages from our backup list which were from the other three constituencies. Every village twice was visited twice. The first visit was one week ahead of the workshops and served the purpose to schedule a date for the workshops with both leaders and to recruit 16 villagers for the experimental session (four as back-ups). Only in two villages, we could not conduct the experiments. In one case, the chief was not living in the village but in the capital and had a deputy chief installed to take care of the village. In the other case the chief did not want the study to be conducted in his village. Both villages were replaced by the first two randomly selected backups.

During the first visit, the leaders managing natural resources answered a short pre-game questionnaire, containing modules on personal characteristics (age, gender, education background), leadership functions (length of stay in office, procedures to come into office, etc.), motivations to run for office and on social involvement. We always invited two relatives of each leader and all other villagers were randomly recruited with the help of a local assistant on a door-to-door basis, excluding the five closest friends named by each leader during the first visit¹. We needed the relatives of leaders to test a hypothesis related to leniency by leaders when enforcing norms through punishment for a related study for which we collected data after the decisions in this study, see [Vollan et al. \(2020\)](#).² We made all possible efforts to reduce the impact of the presence of relatives during the procedural fairness task, which is the focus of this study.³ Still,

¹ Assistants were instructed to approach every third house on a given street and invite the household to have one of its members participate in the upcoming experiment. Households received an invitation letter that informed about the conditions of participation (only one person per household, 18 years of age), monetary incentives (show-up fee and average earnings), and the place and time of the workshop. Neither assistants nor the invitation letter mentioned the specific purpose of our study and simply explained that there was the possibility to take part in a “workshop on decision-making”. In case of any questions regarding the workshop, the invitation letter included the mobile number of one of our research assistants. In addition, we asked interested people to share their mobile number, which we used to remind them of the workshop one day ahead. Invited people were asked to bring their invitation letter to the experimental session for registration.

² The three decisions presented here were part of a larger experimental workshop eliciting leaders’ pro-social preferences and third-party punishment. There were also more distribution decisions in the procedural fairness reflecting trade-offs over inequality aversion, spite, and efficient selfishness, however without offering a conditional payment.

³ We asked leaders one week ahead of the experiments for five names of relatives from which we invited three (one as backup) to the experiments. At the day of the sessions, leaders stayed in their homes, where they participated in different experiments, separated from the villagers. Thus, while leaders might know that their relatives were invited to participate, they did not know who exactly participated and in which game. In addition, these villages are rather small (30 to 90 households in our sample), and social distance is generally small. Still,

presence of relatives may have created an upward bias in the baseline game towards more participatory decision-making. Yet, we have no reason to believe that this bias should differ between chiefs and DEL nor to affect the treatment differences. Three local research assistants (two female, one male) conducted the workshops under the supervision of one of the authors. Field assistants were all native Oukwanyama, born and raised in the study area and at the time of the field research studied at the University of Namibia in Windhoek. All surveys and experimental materials were translated into the local language, Oshivambo, and back to English to ensure the accuracy of the translation.

On the designated session day, we convened at the predetermined venue, typically the customary location for village meetings. This often manifested itself as a prominent "meeting-tree" situated within the village. Once all the invited participants had registered their presence on the participant list, leaders and villagers were split and participated simultaneously in three different locations (villagers in a central location and leaders in their respective homes), so there was no contact between them during the workshop. To account for potential interviewer effects, we randomized the assignment of assistants (female) to leaders across villages. The tasks were explained with the help of visual aids (posters) and leaders had to answer several control questions to ensure their understanding of the task. In no case we presented the labels "democratic", "autocrat" or "pseudo-democratic" and avoided all value-laden words. At the end of the workshop, leaders answered a second survey including items on leadership functions, economic situation, and two psychometric scales to measure personality traits and leadership attributes. In the meantime, the third assistant explained the task to the 12 villagers in a similar fashion (visuals, control questions) before they took their stage 2 decisions. When all villagers finished taking their decisions in private, they answered a survey on their socio-demographic characteristics and opinions on the leaders' performance.

Conducting a series of experimental tasks raises concerns about potential contamination of behavior across games due to order effects, wealth effects, or behavioral spillovers. To counteract this, we ensured that all leaders were exposed to the same sequence of games, thus minimizing the influence of order effects on behavioral discrepancies between leader types. To tackle potential impacts stemming from wealth and spillover effects, we deliberately refrained

participation of relatives may have created an upward bias in the baseline game towards more inclusive decision-making. Yet, we have no reason to believe that this bias should differ between chiefs and DEL nor to affect the treatment differences.

from disclosing the forthcoming tasks to the subjects in advance and refrained from providing feedback on earnings between tasks.

Table S1. **Time schedule of field implementation**

Step	Time relative to session	Stage	Details
1	-1 month	Preparation on-site	Training of local research assistants and translation of all experimental documents into the local language
2	-1 week	First visit: Invitation & Pre-Game Questionnaires	Meeting with the chief and DEL, requesting permission to run session and recruitment of a local assistant to help us invite a convenient sample of neutral players. Pre-Game Questionnaire with both leaders and arrangement of session date and location.
3	-1 day	Reminder	Reminding of invited households and leaders via phone (SMS / call).
4		1. Registration	Meeting at the arranged location and registration of participants. Separation of leaders and villagers to three independent locations (2 for leaders, 1 for villagers)
5		2. Payment of replacements	Backup participants were paid their show-up fee of 30 N\$
6	Day of Workshop	3. Experimental session	Three behavioural tasks in this order: 1. Procedural fairness game 2. Social preference task 3. Nepotism task
7		4. Post-Workshop Questionnaires	Participants fill in a questionnaire before receiving their payments
8		5. Payments	Payment of all participants in private. On average villagers earned 100 N\$ (~7,5 Euro) and leaders 160 N\$ (~12 Euro)

S2. EXPECTATIONS GROUNDED IN SOCIAL NORMS FRAMEWORK

In Box I of Table 1, we summarize how for intrinsic leaders who were against voting for group decision-making in the absence of payments, the monetary incentive might lead them to switch to pseudo-democracy. Conversely, Box II, classifies intrinsic leaders who already favored inclusive decision-making before payments were introduced, facing a potential risk of crowding-out intrinsic motivations from introducing payments – switching from democratic to non-democratic behavior. The introduction of conditional payments may crowd-out intrinsically-motivated moral norms, as the perception of the task may change once financial rewards are involved (Bénabou and Tirole 2003; Bowles and Polanía-Reyes 2012; Frey and Oberholzer-Gee 1997). This could stem from leaders valuing their autonomy and viewing the payments as controlling or interfering.

Furthermore, for extrinsically motivated leaders in Boxes II and III of Table 1, the conditional payments carry two potential signals: (1) the normative expectation to support voting, whereby

leaders could interpret the conditional payments as a signal of the social desirability of inclusive decision-making (in our setting, coming from the experimentalist). This would thereby reinforce the widespread normative expectations conceiving democratic decisions as fair decision-making. And (2) the indication that voting is not widely embraced by others in their reference network, whereby they could perceive conditional payment as signaling a limited current uptake of inclusive processes among leaders. This would suggest a low prevalence of a descriptive norm associated with voting (since such payments would not be necessary otherwise). For those leaders in Box III, the outcome depends on the perceived cost of not adhering to the normative expectations signaled by the payments and the strength of the empirical signal. If psychological costs, such as guilt aversion or reputation concerns related to the normative signal outweigh monetary concerns and the empirical signal, we could observe a shift towards the democratic rule (crowding-in). In Box IV, the incentives carry the same signals, but since leaders had already chosen the democratic rule without incentives, we expect either a neutral outcome (leaders remain with the democratic rule) or a negative effect (leaders switch to pseudo-democratic rule), contingent upon the relative strength of both signals. In our analyses, we empirically assess the extent to which changes in procedural choices by leaders are consistent with these motivations.

Table 1. *Potential (signaling) effects of conditional payments on inclusive decision-making*

	against at baseline (pseudo- or autocratic rule)	in favor at baseline (democratic rule)
Independent Intrinsically motivated governance	Box I Payoff maximization: Switch from autocratic rule to pseudo-democratic rule or stay with pseudo-democratic rule (0)	Box II Risk of crowding-out: switch from moral norm to individual monetary rationale (-)
Interdependent Extrinsically motivated governance	Box III normative expectations (+): stronger pressure of the social norm / guilt - could shift to democratic depending on the perceived cost of not following the norm empirical expectation (-): signal that not many leaders follow the norm may weaken leaders' belief in the descriptive norm	Box IV normative expectations (+): confirm that there is a social norm - remain democratic empirical expectation (-): signal that not many leaders follow the norm may weaken leaders' belief in the descriptive norm

Notes: **(0)** indicates no increase in the use of the democratic rule in the game due to the conditional payment (stick to autocratic or pseudo-democratic rule). **(-)** indicates a potential negative effect due to the conditional payment (switch from democratic rule to either pseudo-democratic or autocratic rule). **(+)** indicates a potential positive effect due to the conditional payment (switch to democratic rule).

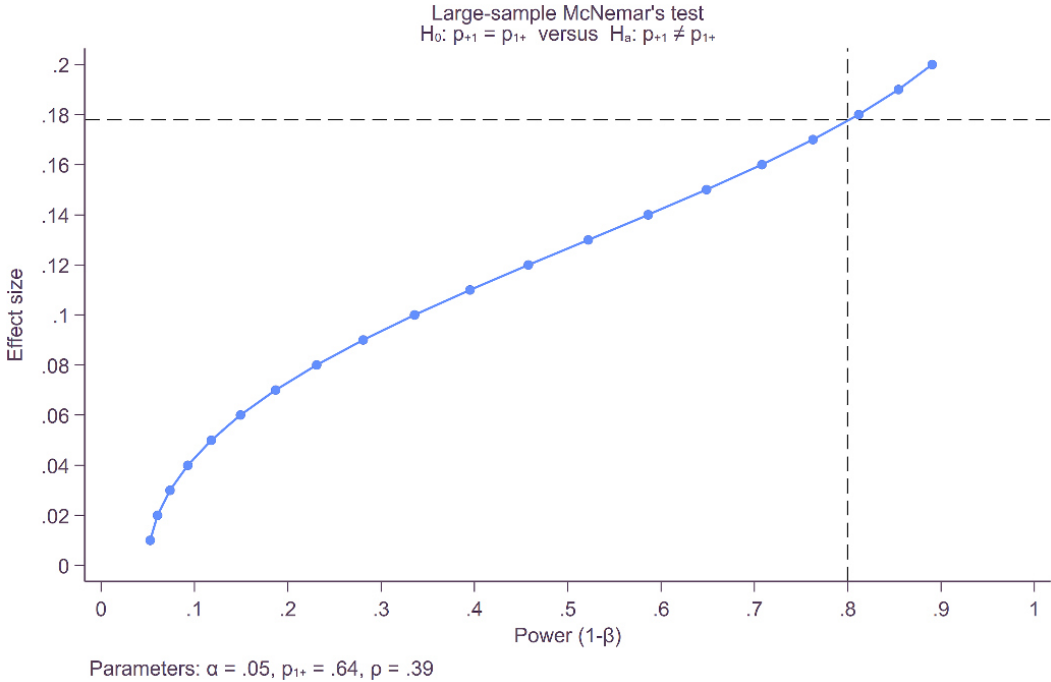
S3. ADDITIONAL ANALYSIS

3.1. POWER ANALYSIS & EQUIVALENCE TESTS

We did not do a power analysis before the data collection because, as mentioned, the study being implemented in the field in 2014, it was not yet common practice to do so and especially difficult in our case as there had been no comparable experiments even conducted with students in lab-settings at the time of our data collection. Therefore, we did not have data from other close experiments to estimate minimum required sample sizes to detect treatment effect but we made design choices (e.g. within-subject design) in order to increase the power by removing subject-to-subject variation from our investigation.

We take a conservative approach to power analyses based on the observed correlation of rule choices between baseline and under the first conditional payment (correlation=0.39). Considering the baseline prevalence of democratic rule choices (64%), we calculate ex-post minimal detectable effect sizes (MDES) at conventional level (alpha of 0.05 and 80% power). These power calculations show that our study of 64 leaders was powered to detect changes in democratic rule choices of 18 percentage points at conventional levels (Figure S1). In reality, we can detect smaller differences, as we only use the data from baseline and response to the first conditional payment..

Figure S1. **Minimal detectable effect size: Within-subject design**



Notes: Power analysis were conducted in Stata 16.

Additionally, we conducted equivalence tests, which give us an idea of whether statistically insignificant results related to responses to the conditional payments on democratic rule choice can be considered as equivalent and whether significant findings (reduction in autocratic and increase in pseudo-democratic rule choices) can be considered as meaningful (Lakens et al. 2018). We set the equivalence bounds, i.e. the smallest effect size of interest induced by the first conditional payment, to 18 percentage points (pp) based on the above shown power analysis. Then the data is tested against two one-sided tests (TOST) around the null effect. Together with a conventional point-null hypothesis test (NHST) this allows us to narrow conclusions drawn from the observed data to four cases: The tests can be statistically equivalent or not, and statistically different from zero or not. Thus, the procedure allows strengthening null effects (NHST insignificant, TOST significant), null rejections (NHST significant, TOST insignificant) and inconclusiveness of data (NHST insignificant, TOST insignificant).

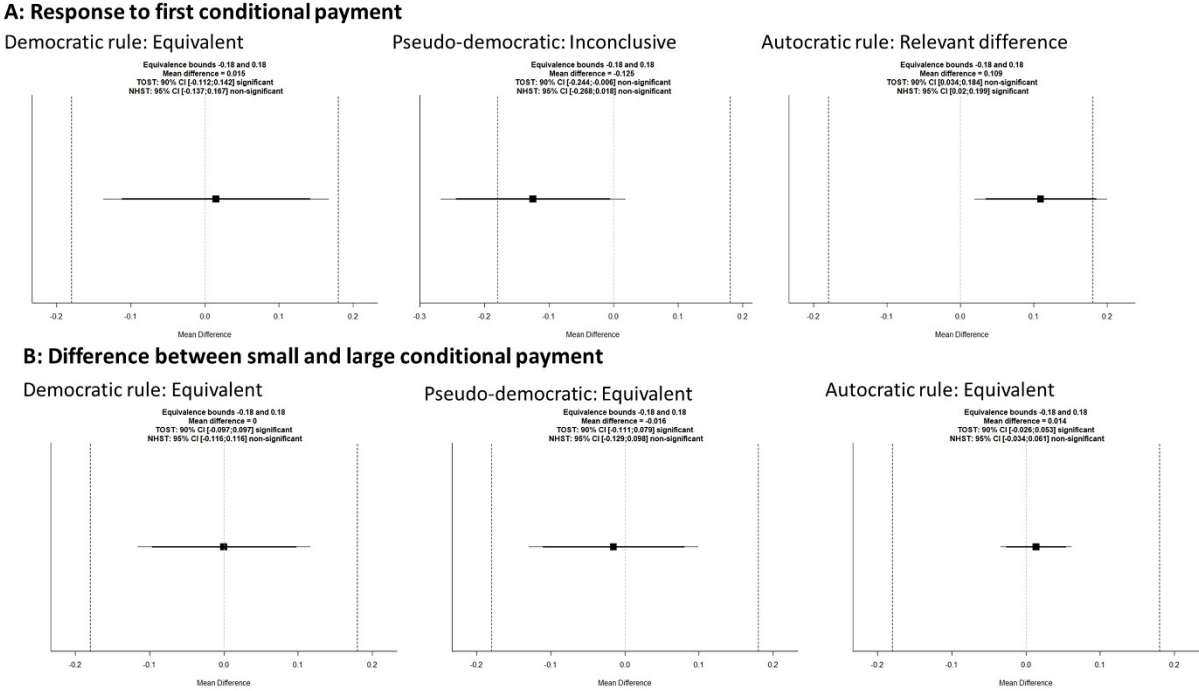
The equivalence tests support the null effect (NHST insignificant, TOST significant) on democratic rule choices by the first conditional payment, see Figure 5, panel A. The vertical dashed lines at -0.18 and 0.18 are the equivalence bounds in percentage points (pp). For democratic rule choices, we can conclude that the effect of responses to conditional payments on democratic rule choice is statistically equivalent (TOST significant, NHST insignificant), i.e. we can reject the presence of any effects larger than 18 pp. Given that smaller effect sizes could be reasonably deemed meaningful and interesting, future research should undertake larger studies to draw more exact conclusions. Thus, as discussed in the introduction and discussion sections of the manuscript, our study should be interpreted as first evidence on this previously unexplored topic in field studies and future research is needed to better understand the size of potential effects.

For autocratic rule choices, we find that the effect is not equivalent (TOST non-significant, overlaps with equivalence bound), and the traditional NHST shows a statistically significant difference from zero. Thus, we can conclude that the effect on autocratic rule choices is a relevant difference, i.e. an effect potentially larger than 18 pp.

Only for pseudo-democratic rule choices the data does not provide conclusive evidence. Both TOST and NHST are insignificant. We cannot reject the smallest effect size of interest, as the 90% confidence interval overlaps with the equivalence bound of 0.18 and we also cannot reject the NHST, as the 95% confidence interval overlaps with zero. There is not enough data to reject the null, or the smallest effect size of interest.

Comparing the small to the large conditional payment, provides evidence for equivalence (TOST significant, NHST insignificant) regarding all three rule choices, see Figure S2 panel B. Thus, we can rule out any differences in rule choices depending on the size of the conditional payment that are bigger than 18 pp.

Figure S2. Equivalence tests



Notes: For computing equivalence test we used the openly accessible R package ‘TOSTER’ by Caldwell (2022). The thick black horizontal line indicates the 90% confidence interval, while the thin line shows a 95% confidence interval.

3.2. SUMMARY STATISTICS

Table S2. **Participants characteristics**

	(1) DELS		(2) Chiefs		(3) Villagers		Mean Difference (t-test)		
	Mean/SD		Mean/SD		Mean/SD		(1)-(2)	(1)-(3)	(2)-(3)
Male (=1)	0.47 [0.51]	0.97 [0.18]	0.47 [0.51]	0.38 [0.49]	-0.50***	0.09	0.59***		
Age (years)	52.75 [14.91]	65.00 [14.02]	52.75 [14.91]	39.69 [16.74]	-12.25***	13.06***	25.31***		
Education (years)	7.32 [3.19]	6.19 [3.89]	7.32 [3.19]	7.49 [3.35]	1.14	-0.16	-1.30**		
Rootedness	0.74 [0.29]	0.70 [0.29]	0.74 [0.29]	0.82 [0.29]	0.04	-0.08	-0.13**		
Wealth (PCA)	0.45 [1.62]	1.70 [1.81]	0.45 [1.62]	-0.19 [1.62]	-1.25***	0.64**	1.89***		
Number of cattle	9.19 [9.07]	20.09 [25.29]	9.19 [9.07]	7.90 [19.27]	-10.91**	1.29	12.20***		
Number of goats	13.84 [13.66]	29.84 [35.41]	13.84 [13.66]	11.91 [13.66]	-16.00**	1.93	17.93***		
Married (=1)	0.78 [0.42]	0.91 [0.30]	0.78 [0.42]	.	-0.13				
Years in Office	8.44 [5.41]	17.34 [15.25]	8.44 [5.41]	.	-8.91***				
Intrinsic motivation (=1)	0.66 [0.48]	0.44 [0.50]	0.66 [0.48]	.	0.22*				
Authentic leadership [4, 16]	10.52 [4.13]	9.98 [4.22]	10.52 [4.13]	.	0.54				
N	32		32		384				
F-test of joint significance					4.42***	4.80***	29.30***		
F-test, Observations					63	393	394		

Notes: The wealth index is the first factor derived from a principal component analysis (PCA) that is based on the assets participants own. We used a list of assets including for example TV, cars, or generators, where leaders simply had to indicate which assets they own. Some assets had to be excluded from the PCA, as they were either owned by nearly all leaders (cell phone) or by none of them (motorbike). Rootedness is measured as the share of a lifetime that the leader has spent in the current community. The score ranges from zero to one, where one implies that the leader has been living in the same community all his life. The leader's political experience is measured by how many years he or she is in office. Reported is the F-statistics from a test for joint orthogonality that differences between leaders and villagers are jointly different from zero. Standard errors: *** p<0.01, ** p<0.05, * p<0.1.

3.3. OVERVIEW MAIN OUTCOME VARIABLES

We start with an overview of the main outcome measures. Table S3 shows the rule choice decisions across all three rounds and the subsequent stage 2 distribution decisions. The rule choice variable from stage one is categorical where the three rules have no natural ordering and choices are observed over three rounds from the same leader. The stage two voting variable is binary, indicating whether the leader voted for distribution A or B. The majority, 41 out of 64 leaders (64%), choose the democratic rule in the baseline round in absence of any reward. Also, 64% of the leaders chose the democratic rule in both treatment rounds, while the number of

autocrats decreases from nine to three with the small bonus and two with the large bonus at the expense of more pseudo-democratic choices.

Regarding the stage 2 distribution decisions, the data shows that leaders who opted for the democratic rule have the highest share of votes for distribution B across all three rounds (baseline 54%, small bonus 59%, and large bonus 43%) compared to baseline pseudo-democrats (36%, 25% and 33% respectively) and autocrats (33%, 33% and 50% respectively). Thus, democratic rule choice seems to be correlated with caring more about the villagers' outcome in stage 2. Moreover, around one-third of the leaders that opt for the autocratic or pseudo-democratic rule implement distribution B, acting as *benevolent autocrats*.

Table S3. Summary statistics of main outcomes for leaders

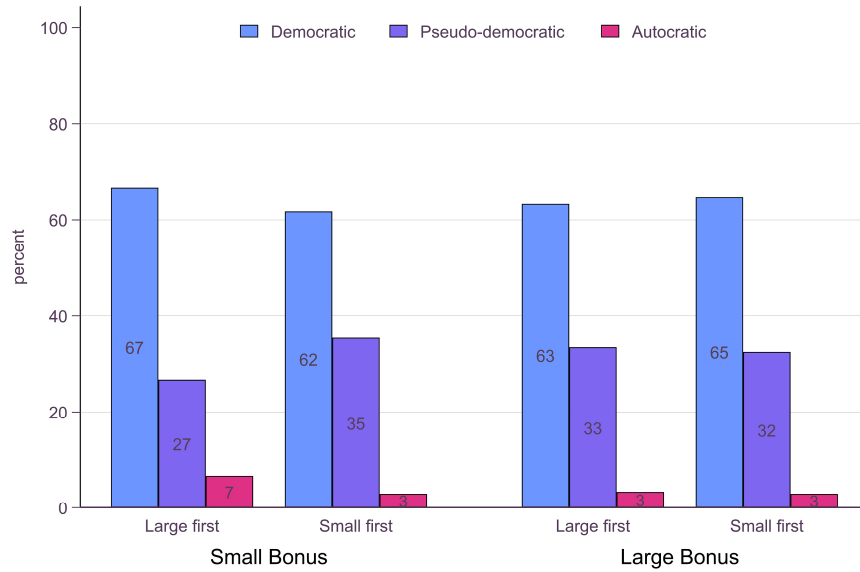
	Baseline		Small Bonus		Large Bonus	
	count	percent	count	percent	count	percent
Stage 1: Rule choice						
Democratic	41	64	41	64	41	64
Pseudo-democratic	14	22	20	31	21	33
Autocratic	9	14	3	5	2	3
Total	64	100	64	100	64	100
Stage 2: Distribution choice						
Democratic						
Distribution A	19	46	17	41	23	56
Distribution B	22	54	24	59	18	43
Total	41	100	41	100	41	100
Pseudo-democratic						
Distribution A	9	64	15	75	14	67
Distribution B	5	36	5	25	7	33
Total	14	100	20	100	21	100
Autocratic						
Distribution A	6	67	2	67	1	50
Distribution B	3	33	1	33	1	50
Total	9	100	3	100	2	100

Notes: Shown are the main outcome variables (rule choice and vote) across all three treatment rounds for both stage 1 and stage 2.

3.4. ORDER EFFECTS

Figure S3 shows rule choices in the small and large bonus rounds depending on which bonus round was played first. Between sessions, we randomized the order of the bonus rounds to identify potential systematic differences induced by sequencing. We find no significant evidence for sequencing effects on in rule (Fisher's exact, $p=.811$).

Figure S3. Order effects on rule choice in bonus rounds



Notes: 34 leaders played the procedural fairness task in the order Baseline-Small-Large giving us 102 observations for this sequence. The other 30 leaders played in the order Baseline-Large-Small giving us 90 observations.

Table S4. Sample splits by order of conditional payments

	Order 1: Base-Large-Small			Order 2: Base-Small-Large		
	(1) Democratic	(2) Pseudo-democratic	(3) Dictator	(4) Democratic	(5) Pseudo-democratic	(6) Dictator
Round 2	-0.067 (0.108)	0.200** (0.089)	-0.133* (0.080)	0.029 (0.090)	0.059 (0.085)	-0.088 (0.066)
Round 3	-0.033 (0.103)	0.133 (0.094)	-0.100 (0.074)	0.059 (0.085)	0.029 (0.090)	-0.088 (0.066)
Constant	0.700*** (0.086)	0.133** (0.064)	0.167** (0.070)	0.588*** (0.087)	0.294*** (0.080)	0.118** (0.057)
Observations	90	90	90	102	102	102
Leaders	30	30	30	34	34	34
Overall R-squared	0.003	0.037	0.040	0.002	0.003	0.031
Test: R2 = R3 (p-value)	0.713	0.488	0.572	0.712	0.712	0.999

Notes: Panel regression with robust standard errors in brackets: * p < 0.10, ** p < 0.05, *** p < 0.01.

3.5. MAIN RESULTS

Table S5. Main effects of bonus payment

	Democratic (1)	Pseudo- democratic (2)	Autocratic (3)	Democratic (4)	Pseudo- democratic (5)	Autocratic (6)
Small Bonus	0.00 [-0.58,0.59]	0.46 [-0.15,1.08]	-0.77** [-1.48,-0.05]			
Large Bonus	0.00 [-0.58,0.58]	0.53* [-0.09,1.16]	-0.98** [-1.91,-0.05]			
Pooled Bonus				0.00 [-0.52,0.52]	0.50* [-0.06,1.05]	-0.87** [-1.57,-0.16]
Order (small first)	-0.19 [-1.01,0.64]	0.34 [-0.48,1.15]	-0.31 [-1.07,0.44]	-0.19 [-1.01,0.64]	0.34 [-0.48,1.15]	-0.32 [-1.07,0.44]
Constant	0.69** [0.03,1.36]	-1.43*** [-2.18,-0.68]	-1.16*** [-1.91,-0.42]	0.69** [0.03,1.36]	-1.43*** [-2.18,-0.68]	-1.16*** [-1.91,-0.42]
Insig2u	0.57 [-0.32,1.45]	0.46 [-0.48,1.40]	-0.66 [-2.26,0.94]	0.57 [-0.32,1.45]	0.46 [-0.48,1.40]	-0.67 [-2.24,0.90]
N	192	192	192	192	192	192
Individuals	64	64	64	64	64	64
sigma_u	1.33	1.26	0.72	1.33	1.26	0.71
rho	0.64	0.61	0.34	0.64	0.61	0.34
Wald Chi2	0.20	3.97	5.89	0.20	3.88	6.02
p	0.98	0.27	0.12	0.91	0.14	0.05

Notes: Estimates from panel Probit regressions. Models (1-3) show the effects for both the small and large bonus and models (4-6) show the pooled effects over both bonus rounds. 95% confidence interval in brackets: *** p<0.01, ** p<0.05, * p<0.1

Table S6. Treatment effects separately for chiefs and DELs

	Democratic elected leaders			Chiefs		
	Democratic (1)	Pseudo-democratic (2)	Autocratic (3)	Democratic (4)	Pseudo-democratic (5)	Autocratic (6)
Pooled Bonus	0.26 [-0.59,1.11]	0.40 [-0.39,1.20]	-0.85* [-1.79,0.10]	-0.17 [-0.86,0.51]	0.58 [-0.22,1.38]	-0.85 [-2.32,0.62]
Order (small first)	0.11 [-1.50,1.73]	0.10 [-1.20,1.41]	-0.44 [-1.49,0.61]	-0.44 [-1.28,0.40]	0.57 [-0.44,1.57]	-0.13 [-0.99,0.73]
Constant	0.29 [-0.93,1.51]	-1.22** [-2.31,-0.14]	-0.90* [-1.86,0.05]	1.00** [0.24,1.75]	-1.62*** [-2.67,-0.56]	-1.25 [-2.91,0.41]
Insig2u	1.30** [0.02,2.58]	0.76 [-0.64,2.15]	-0.51 [-2.00,0.99]	-0.36 [-1.90,1.19]	0.10 [-1.30,1.50]	-12.88 [-7.2e+05,7.2e+05]
N	96	96	96	96	96	96
Individuals	32	32	32	32	32	32
sigma_u	1.91	1.46	0.78	0.84	1.05	0.00
rho	0.79	0.68	0.38	0.41	0.52	0.00
Wald Chi2	0.39	1.05	3.12	1.34	3.24	2.32
p	0.82	0.59	0.21	0.51	0.20	0.31

Notes: Estimates from panel Probit regressions. Models (1-3) show the effects for DELs and models (4-6) show the for chiefs. 95% confidence interval in brackets: *** p<0.01, ** p<0.05, * p<0.1

Table S7. **Robustness check – Multilevel panel regression**

	(1)	(2)	(3)
	Democratic	Pseudo-democratic	Autocratic
Small Bonus	0.00	0.09	-0.09**
	[-0.13,0.13]	[-0.03,0.22]	[-0.18,-0.01]
Large Bonus	-0.00	0.11*	-0.11**
	[-0.13,0.13]	[-0.01,0.23]	[-0.19,-0.02]
Small bonus first	-0.05	0.08	-0.03
	[-0.24,0.14]	[-0.09,0.25]	[-0.11,0.05]
Constant	0.67***	0.18**	0.16***
	[0.51,0.82]	[0.03,0.32]	[0.08,0.23]
sd(Constant)	0.32***	0.29***	0.08***
	[0.25,0.42]	[0.22,0.38]	[0.04,0.18]
sd(Residual)	0.36***	0.35***	0.24***
	[0.32,0.41]	[0.31,0.40]	[0.22,0.28]
N	192	192	192
Individuals	64	64	64
Wald Chi2	0.26	4.44	8.02
p	0.97	0.22	0.05

Notes: Results are from multilevel panel regression fitted with restricted maximum likelihood estimation and random effects at the individual level. Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table S8. **Robustness check – Multinomial probit**

	Small Bonus	Large Bonus	Pooled bonus
Rule choice	(1)	(2)	(3)
Democratic	-0.013	-0.007	-0.011
	(0.067)	(0.066)	(0.060)
Pseudo-democratic	0.092	0.110*	0.101*
	(0.063)	(0.064)	(0.056)
Autocratic	-0.079**	-0.102**	-0.090**
	(0.039)	(0.049)	(0.039)
Observations	192	192	192
Individuals	64	64	64
Wald chi2	7.17	7.17	7.06
Prob > chi2	0.305	0.305	0.133

Notes: Average marginal effects from multinomial Probit regressions are shown. In all models, we control for order effects. Standard errors clustered at the individual level are reported in parentheses: *** p<0.01, ** p<0.05, * p<0.1

3.6. HETEROGENEOUS EFFECTS BY LEADERS' MOTIVATION

We also elicited leaders' intrinsic motivations and authentic leadership scores. The dummy indicating whether a leader has intrinsic motives to be in a leadership position is based on an open question from the pre-experiment survey. Four research assistants at our home universities independently categorized all responses into either intrinsic or extrinsic motives (activated from the inside/outside) following the motivation crowding theory by Frey & Oberholzer-Gee (1997). In cases of disagreement (eight times), the research assistants discussed and jointly evaluated whether the response should be categorized as intrinsic or extrinsic. When both intrinsic and extrinsic motives were mentioned, we decided to categorize the leader still as intrinsically

motivated, as his or her intrinsic motives could still be crowded out by the payments. Examples for intrinsic motives are: “to fight for the good of the community”, “To bring it up to standard”, “to lead the community”, “To help develop the community”, “To help improve people's/community member's lives” and for extrinsic motives: “just accepted a responsibility given by elders and villagers.”, “just accepted votes” or “didn’t volunteer to be a candidate”.

Table S9. **Subsample treatment effects on democratic rule choices**

	Democratic Rule (=1)			
	(1) Box 1	(2) Box 2	(3) Box 3	(4) Box 4
Pooled Bonus	29.167** (12.007)	50.000*** (13.564)	-26.087*** (7.885)	-16.667** (8.452)
Small bonus first	-0.952 (16.230)	-13.095 (19.208)	7.323 (11.140)	5.000 (9.601)
Constant	0.556 (14.756)	8.333 (17.792)	96.179*** (9.612)	97.778*** (8.528)
N	36	33	69	54
Cluster	12	11	23	18
Wald Chi2	5.90	14.05	11.38	4.16
p	0.05	0.00	0.00	0.12

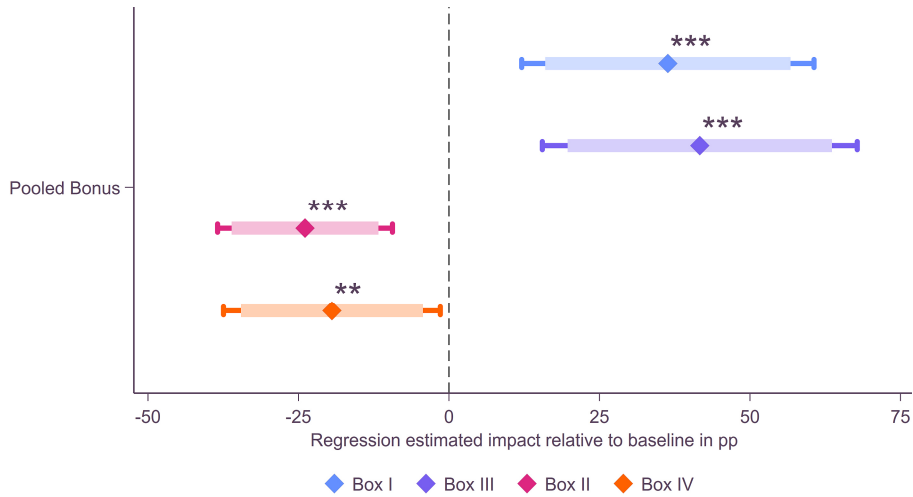
Notes: Estimates are from multilevel panel regressions that account for the grouping structure of the data at the individual level (random intercept). Standard errors with stars indicating the following significant levels: * p < 0.10, ** p < 0.05, *** p < 0.01.

Table S10. **Robustness check: Subsample treatment effects based on authentic leadership scale**

	Democratic Rule (=1)			
	(1) Box 1	(2) Box 2	(3) Box 3	(4) Box 4
Pooled Bonus	36.364*** (12.389)	41.667*** (13.347)	-23.913*** (7.411)	-19.444** (9.189)
Small bonus first	-11.111 (24.568)	-1.905 (17.079)	15.909 (10.706)	-6.667 (9.763)
Constant	9.091 (23.707)	0.794 (14.167)	91.700*** (9.177)	102.963*** (8.938)
N	33	36	69	54
Cluster	11	12	23	18
Wald Chi2	8.82	9.76	12.62	4.94
p	0.01	0.01	0.00	0.08

Notes: Estimates are from multilevel panel regressions that account for the grouping structure of the data at the individual level (random intercept). Standard errors with stars indicating the following significant levels: * p < 0.10, ** p < 0.05, *** p < 0.01.

Figure S4. **Robustness check: Likelihood to choose democratic rule across subgroups**



Notes: Plotted are the results from four multilevel panel regressions (Table S10) that account for the grouping structure of the data at the individual level (random intercept). The dependent variable in all models is whether the leader opted for the democratic rule. 95 percent (thin lines) and 90 percent (thick lines) confidence intervals are shown. The stars indicate whether differences are statistically significant at the following levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

3.7. SURVEY EVIDENCE: SATISFACTION WITH LEADERS

Table S11. **Villager satisfaction depending on leaders' baseline rule choices**

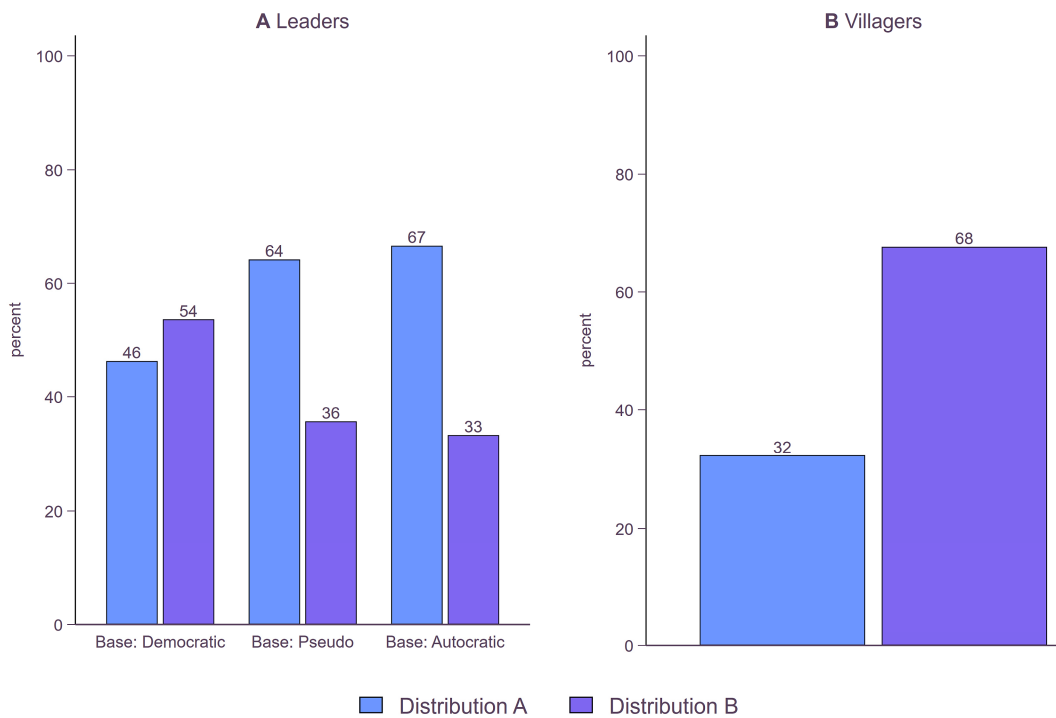
	(1) Satisfaction
Baseline: Pseudo-Democratic	-0.36*** [-0.59,-0.12]
Baseline: Autocratic	-0.30** [-0.54,-0.05]
N	384
Village FE	Yes
R-squared	0.13
Adjusted R-squared	0.04

Notes: Reference category are baseline democrats. Estimates from ordinary least square regressions with satisfaction as the dependent variable. 95% confidence interval in brackets: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

3.8. STAGE 2 OUTCOMES

Figure S5 shows which distribution is preferred by leaders (panel A) and villagers (panel B). As expected, villagers are on average more likely (21 pp) to prefer distribution B than leaders ($\text{Chi}^2=10.43$, $p=0.00$). However, still nearly one-third of villagers prefer distribution A, which favors the payoff of their leader at their own expense. This is especially true for villagers playing with their chief (36% prefer A) compared to playing with the DEL (29% prefer A) (T-Test $\Delta=0$, $t_{382}=1.53$, $p=0.127$)

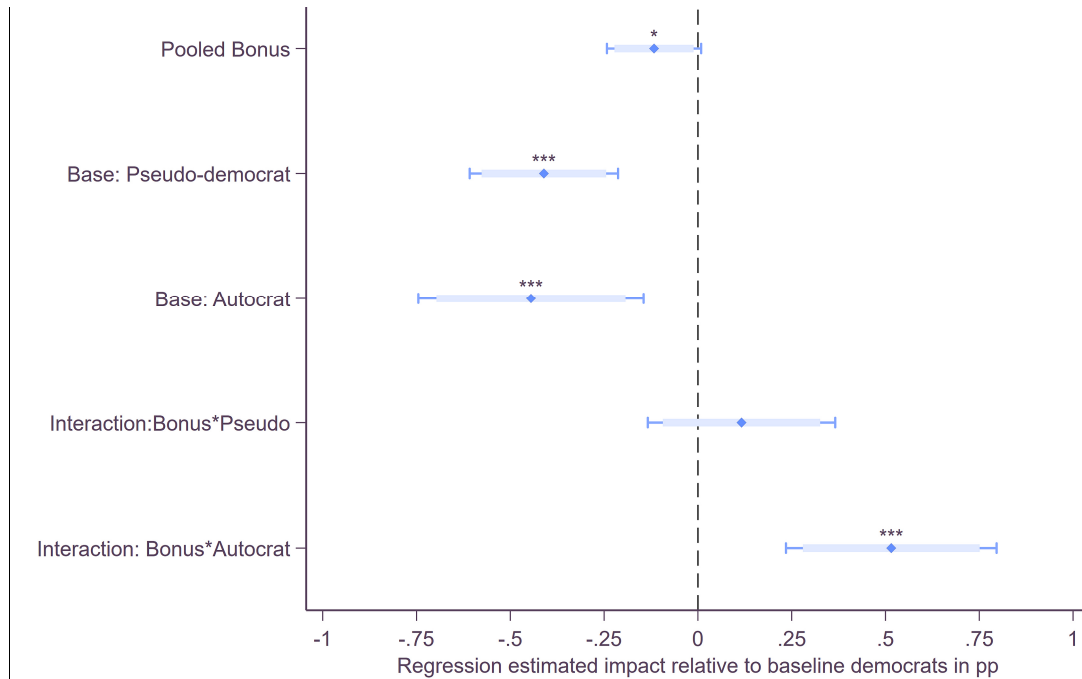
Figure S5. Preferred distribution by leaders and villagers in the baseline



Notes: Panel A shows which distribution was chosen or voted on by leaders in the baseline absent of payments. Panel B shows for which distribution villagers voted depending on whether they were allocated to a group governed by the local traditional authority (n=192 or 32 groups) or democratic leader (n=192 or 32 groups).

Next, we look at whether villagers are better off in monetary terms when payments were introduced. Figure S6 shows that the conditional payments even slightly reduced the share of distribution B (favoring the villagers) in groups with baseline democratic leaders ($\beta=-0.11$, $p=0.07$, $95CI=-.24, .01$). In the baseline round, the likelihood that the villagers received distribution B was significantly lower by 41 pp in pseudo-democratic governed groups ($\beta=-0.41$, $p=0.00$, $95CI=-.61, -.21$) and 45 pp in autocratic governed groups ($\beta=-0.45$, $p=0.004$, $95CI=-.75, -.15$) compared to groups under democrats. The conditional payments were only able to increase the share of distribution B being implemented for the nine groups governed by baseline autocrats (Interaction $\beta=0.52$, $p=0.00$, $95CI=.24, .80$) but not baseline pseudo-democrats (Interaction $\beta=0.11$, $p=0.36$, $95CI=-.13, .37$). In sum, the bonus payments increase the likelihood that the more equal distribution is implemented for groups governed by baseline autocrats but even slightly decrease it among groups governed by baseline democrats.

Figure S6. **Likelihood of distribution B being implemented**



Notes: The dependent variable is the binary identifier of whether distribution B (=1) was implemented or not. Average marginal effects computed after a restricted multilevel panel regression are plotted with baseline democrats as the omitted group. 95percent (thin lines) and 90percent (thick lines) confidence intervals are shown based on standard errors clustered at the individual level. In all regression models, we control for order effects. Stars indicate the following significance levels: *** p<0.01, ** p<0.05, * p<0.1

Table S12 shows the full regression output.

Table S12. **Likelihood of distribution B being implemented**

	(1) Distribution B (=1)
Pooled Bonus	-0.66*
	[-1.39,0.07]
Base: Pseudo-democrat	-2.33***
	[-3.84,-0.81]
Base: Autocrat	-2.52***
	[-4.34,-0.70]
Bonus*Pseudo-democrat	0.66
	[-0.77,2.09]
Bonus*Autocrat	2.92***
	[1.18,4.67]
Constant	1.71***
	[0.79,2.63]
Insig2u	0.91*
	[-0.06,1.88]
N	192
Individuals	64
sigma_u	1.57
rho	0.71
Wald Chi2	17.48
p	0.00

Notes: Estimates from multilevel panel Probit regression. 95% confidence interval in brackets: *** p<0.01, ** p<0.05, * p<0.1

S4. EXPERIMENTAL INSTRUCTIONS & SURVEYS

4.1. LEADERS

Thank you for taking the time to participate in our research study on decision making. This kind of study is conducted with people like you and me all over the world. Today, we want to carry out three games. In each of these games, you can earn money that you can keep and take home. Depending on your decisions in these games, you can earn a considerable amount of money. In addition, you will receive 30 N\$ for showing up.

Apart from you, there are 13 other people from this village participating in this study.

All three games and a questionnaire will last for about 2 hours in total.

Before I start to explain the games, I want to give you some general information that you should know:

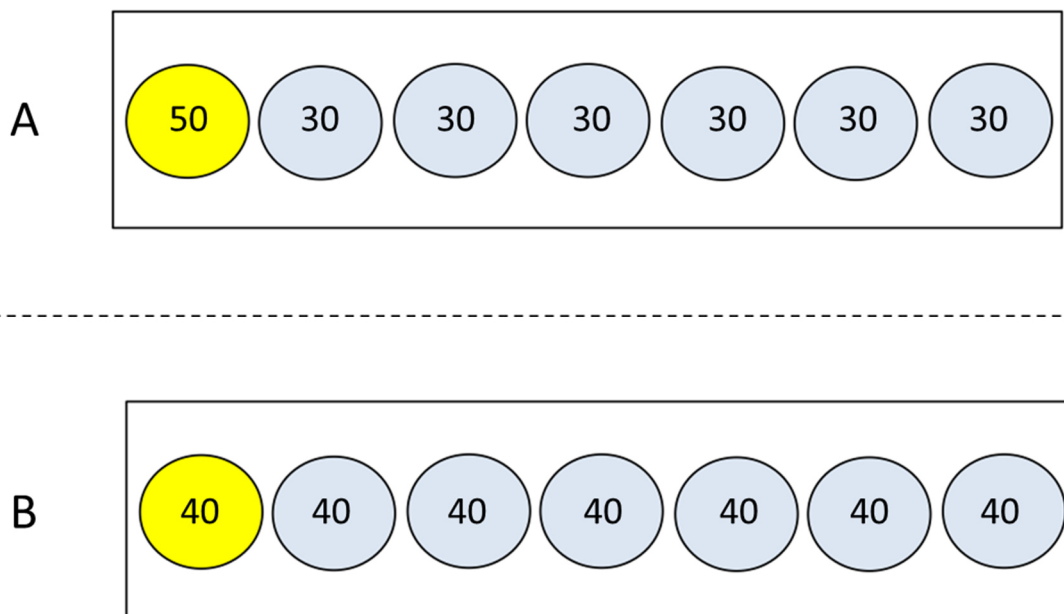
1. With one exception, you will make all decision in the games in private, so that none of the other people in this village will learn your decision. The information we gather today will not be made available to other people outside the research team. The information in this study will only be used in ways that will never reveal who you are.
2. You will participate in 3 games. All three different games are relevant for your final earnings, but you will receive the sum of all your earnings only at the very end after all three games had been played. I will keep a record of your earnings in all the games to make sure that you receive the correct amount.
3. At the beginning of each game, I will explain it and give you examples on how to make decisions. It is very important that you listen to the explanations very carefully.
4. During the games you may please not use your cell phones.
5. In all games, there are no right or wrong answers. You can choose freely the decisions you want to make.
6. If you are willing to participate in the session today I will ask you to sign a consent form.

Game 1 Instructions:

We now start with the first game. You will have the chance to earn a considerable amount of money that will be added to your earnings that we will pay at the end of the session today.

In this first game you are going to make six decisions 1 to 6. Your decisions will affect the money that you and six persons from your village will earn. However, you and the other six villagers will be paid for only one of the 6 decisions. At the end of the session, we will roll a dice, and the diced number will determine the decision you and the others will be paid for. For example, if the dice shows 4, you will be paid for decision number 4.

In each of the situations, we are going to present to you two different distributions of money that we are going to place in this cardboards here. (SHOW CARDBOARD). For every situation the two distributions are called "A" and "B". In all distributions the yellow circle will contain the amount of money that you get and the other light blue circles the amount of money that the six villagers will get. You will not know the names of these six villagers. For example, one allocation A could be where you get 50, and the other six people get 30; and one allocation B could be where you get 40 and the other six people get 40. [WRITE NUMBERS IN THE CIRCLES]



You can choose three different procedures on how the alternative distribution A and B in each decision will be selected. (DISPLAY NOW THE 3 CARDS FOR PROCEDURAL CHOICES).

Procedure 1: This card here with one man represents that you will decide by your own. If you choose this card, you can then decide by your own whether you want us to pay to you and to the

six villagers the money in A or in B. You will do so by choosing one of the grey cards here A or B (DISPLAY THE GREY CARD A AND B).

Procedure 2: This other card here with seven men represents that you and the six villagers will vote between the two distributions. You and the six villagers will vote for either A or B. The distribution (A or B) that gets four or more votes is the one that will be paid to you and the villagers. The result of the vote is binding. You and the villagers will vote for the preferred distribution by choosing one of the grey cards here A or B (DISPLAY THE GREY CARD A AND B).

Procedure 3: This card here with six small men and one large man represents that villagers will vote between the two distributions, but it is still you who will be making the decision on whether we will pay A or B. You will do so by choosing one of the grey cards here A or B (DISPLAY THE GREY CARD A AND B).

If you choose this card, we will later ask the villagers for their votes, but the votes will not count. That is, you can already now implement your preferred payoff distribution and the villagers will not know that you actually do not consider their vote.

In each of the different situations 1 to 6 you can choose the procedure that you prefer. You do not need to choose always the same one. Moreover, remember there are no right or wrong answers.

If in a situation you choose the card with one man then the villagers will be informed that you decided on your own without considering their votes.

If in a situation you choose one of the other cards with seven men or with six small men and one large man, we will inform villagers that you allowed for a voting. But we will not tell them if you used the card with seven men or the card with six small men and one large man. This is to say, if you choose this card with six small men and one large man you can choose the outcome you want and the villagers will not know that you decided on your own.

In any case, we will not reveal which payoff-distribution A or B you preferred.

Do you have any questions? [EXPLAIN AGAIN IF NECESSARY]

4.2. CONTROL QUESTIONS & DECISION-MAKING: LEADERS

(PLEASE REPORT WHETHER PARTICIPANT ANSWERED CONTROL QUESTIONS CORRECTLY IN RECORD SHEET)

We kindly ask you now to answer some questions about the game. Do not worry if you are not able to answer all questions correctly immediately. You will have the chance to ask me questions before you make your decision and we will make sure that you understand the game. Please remember that each decision is between payoff distribution A or B.

1. Suppose you choose the card with one man and decide for A.
 - a. Does this mean that A will be implemented?
 - b. Will the villagers think you allowed for a vote?
2. Suppose you choose the card with seven men and vote for B.
 - a. Does this mean that A will be implemented?
 - b. Will the villagers think you allowed for a vote?
3. Suppose you choose the card with six small men and one large men and decide for A:
 - Does this mean that A will be implemented?
 - Will the villagers think you allowed for a vote?

(IF THE PARTICIPANT HAD PROBLEMS ANSWERING THE CONTROL QUESTIONS, EXPLAIN HIM/HER THE GAME AGAIN AND ASK AGAIN ALL CONTROL QUESTIONS. OTHERWISE; IF THE PARTICIPANT ANSWERED THE QUESTIONS CORRECTLY, MOVE ON)

Decisions: Let us start with situation 1. In distribution A... *(DESCRIBE THE AMOUNTS IN A, AND B WHILE PLACING THE CORRESPONDING MONEY IN EACH CIRCLE)*

Now please tell me, for situation 1 do you prefer to use the one man, the seven men card or the card with six small men and one large man?

If the one man card is chosen: Thank you. Now please **decide** whether you want distribution A or B to be paid out to you and the 6 villagers.

If the seven men card is chosen: Thank you. Now please **vote** for your preferred distribution A or B. We will next ask the six villagers to vote between A and B. The distribution A or B that received most votes will be paid to you and the 6 villagers. We will tell you the result at the end of the session.

If the big and small men card is chosen: Thank you. Now please **decide** whether you want distribution A or B to be paid out to you and the 6 villagers.

Thank you.

Let us now move to situation 2. In the new option A... (*DESCRIBE THE AMOUNTS IN A AND B*)

[*PROCEED TO SITUATIONS 3 AND 4*]

Thank you. Let us now move to situation 5. In this case we are introducing a new rule: If you choose the card with the seven men or the card with the six small men and one large man, we will give 10 N\$ extra for you. In distribution A... (*DESCRIBE THE AMOUNTS IN A AND B*)

Thank you.

Let us now move to situation 6. In this case we are introducing again a new rule: If you choose the card with the seven men or the card with the big and small men, we will give 100 N\$ extra for you. In distribution A... (*DESCRIBE THE AMOUNTS IN A AND B*).

Thank you.

With this we finish the first game.

4.3. VILLAGERS

Greetings and welcome to all of you. My name is [...] and I am a student of the University of Namibia. Together with my colleagues, I am here for a research study on decision making. This kind of study is conducted with people like you and me all over the world. Today, we want to carry out three games. In each of these games, you can earn money that you can keep and take home. Depending on the decisions made by you and other participants in these games, you can earn a considerable amount of money. In addition, each of you will receive 30 N\$ for showing up.

Apart from you sitting here, the chairperson of the local water point committee [SAY NAME] and the village headman [SAY NAME] also participate in these games today. They participate from their homes. Throughout the games we will refer to them as "leaders".

All three games and a questionnaire will last for about 3-4 hours in total.

Before we start to explain the games, we want to announce some general information and rules that you should know:

1. You will make all decisions in all three games in private, so that none of the other villagers, the chairperson of the local water point committee [SAY NAME] or the village headman

[SAY NAME] will ever learn your decision. Also, the information we gather today will never be made available to other people outside the research team. The information in this study will only be used in ways that will never reveal who you are.

2. You will participate in 3 games. All three different games are relevant for your final earnings, but you will receive the sum of all your earnings only at the very end after all three games had been played. We will keep a record of your earnings in all the games to make sure that you receive the correct amount.
3. At the beginning of each game, we will explain it and give you examples on how to make decisions. It is very important that you listen to the explanations very carefully. In case you do not understand them, please stop us and ask us. We are happy to explain it again.
4. Before we play a game, we will check if you have understood the game or not. In case you do not understand the game, we will explain it to you again. However, if you still find the game too difficult, we might request you to leave the venue. In this case, you will receive the show-up fee of 20 N\$ from us. Therefore, it is important that you listen to the explanations carefully. But don't worry, I am sure you will understand the games.
5. During all games conversation and use of cell phones is strictly prohibited.
6. In all games, there are no right or wrong answers. You can choose freely the decisions you want to make.
7. If you find that this is something that you do not wish to participate in for any reason, you are of course free to leave at any time. But if you know that you will not be able to stay for the three hours, then you should not participate.
8. If you are willing to participate in the session today we will ask you to sign a consent form.

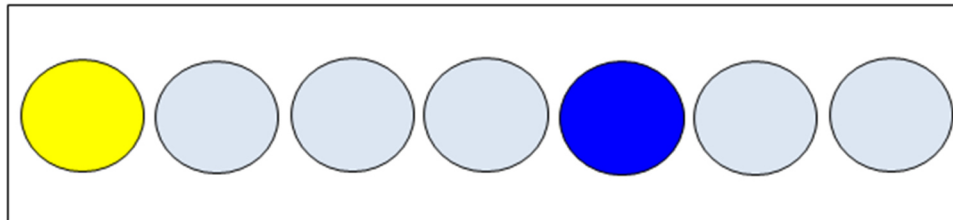
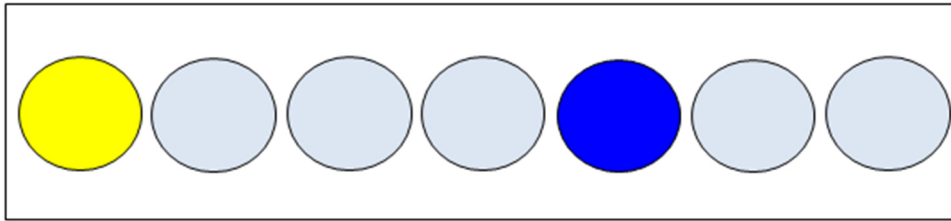
ASSISTANT: ASK WHETHER EVERYONE UNDERSTOOD THE GENERAL RULES.
ASK IF THERE IS ANYONE NOT WILLING TO PARTICIPATE.

Game 1 Instructions:

GENERAL INSTRUCTIONS FOR ALL VILLAGERS

We now start with the first game. You will have the chance to earn a considerable amount of money that will be added to your earnings that we will pay at the end of the session today.

To help explain the game we will be using this poster (SHOW). Later on, one by one will come to us to make his or her decisions in this game. You will then be presented this poster, which represents a decision situation.



You will play this game with 6 other people. You see, there are a total of 7 circles. The dark blue circle is you. Five of the other people playing with you sit with you in this room, and there is one light blue circle for each of them; the 6th person is one of the two leaders. We will tell you later with which of the leaders you are playing in this game. But you will not know who the other five people in this room are.

In this game you are going to make decisions about 4 different situations. Your decisions can affect the money that you and the other 6 people will earn. However, all of you will be paid for only **one of the 4** decisions. At the end of the workshop, we will draw one of four cards to determine which decision you and the others will be paid for. For example, if the card shows 3, you will be paid for decision number 3.

In each situation the game proceeds in **two steps**:

In the first step, for each situation, the leader will determine the **procedure** according to which one of the two alternative distributions A or B will be selected. In the second step, the distribution according to which you, the leader and the other 5 people will be paid (A or B) will be determined.

For example, the leader can decide that he **himself** alone determines whether distribution A or B will be paid. In this case, we will pay you, the leader and the other five villagers the amounts of the distribution selected by the leader

Alternatively, he can **allow for a vote** on the distribution of money that will be paid where the whole group including you, himself and the other five villagers will vote. If he allows for the vote, he **can** choose to follow the choice of the majority, but he does not need to. If the leader

chooses to follow the choice of the majority, you, the leader and the other five villagers will receive the amounts of the distribution A or B that received most votes. If the leader chooses to decide alone, we will pay you, the leader and the other five villagers the amounts of the distribution selected by the leader.

Although we don't know the leader's choice yet, we will ask you to vote on all the decisions 1 to 4. Only after all games are over, we will tell you if the leader allowed for a vote. Do you have any questions?

We will call you by your Name to come join us in a separate space. When you're done playing, you can wait outside until everybody has finished playing. It's really important to us that you don't talk about the game until everyone has played. We really want you to follow this rule!

(THE THREE ASSISTANTS START CALLING OUT 3 OF THE PARTICIPANTS SEPARATELY. IVO AND FABIAN TAKE CARE OF KEEPING SILENCE IN THE ROOM.)

I

4.4. CONTROL QUESTIONS & DECISION-MAKING: VILLAGERS

(PLEASE REPORT WHETHER PARTICIPANT ANSWERED CONTROL QUESTIONS CORRECTLY IN RECORD SHEET)

We kindly ask you now to answer some questions about the game. Do not worry if you are not able to answer all questions correctly immediately. You will have the chance to ask me questions before you make your decision and we will make sure that you understand the game.

Please remember that each decision is between payoff-distribution A and B.

1. Suppose you vote for A: Does this mean that A will be implemented?
2. Suppose the majority votes for B. Does this mean that B will be implemented?
3. Suppose the leader allows for a vote and votes A. Does this mean that A will be implemented?
4. Suppose the leader doesn't allow for a vote and votes for B. Does this mean that B will be implemented?

(IF THE PARTICIPANT HAD PROBLEMS ANSWERING THE CONTROL QUESTIONS, EXPLAIN THE RULES AGAIN AND ASK THE CONTROL QUESTIONS AGAIN)

Decisions:

In this game the leader you will be playing with is [NAME].

Let's start with **situation 1**:

In distribution A... *(DESCRIBE THE AMOUNTS IN A, AND B WHILE PLACING THE CORRESPONDING MONEY IN EACH CIRCLE)*

We ask you now to vote for the distribution you like most by choosing one of the grey cards A or B. We will also ask the other five villagers and [NAME LEADER] to do the same.

Now please choose one of the grey cards A or B.

Thank you.

Now, let's turn to **situation 2**:

In distribution A... *(DESCRIBE THE AMOUNTS IN A AND B)*

We ask you now to vote for the distribution you like most by choosing one of the grey cards A or B. We will also ask the other five villagers and [NAME LEADER] to do the same.

Now please choose one of the grey cards A or B.

Thank you.

[PROCEED TO SITUATIONS 3, 4]

Thank you. Please wait outside until we call you for the next game.

4.5. MATERIALS

SHEETS TO RECORD DECISIONS OF LEADERS



















Name:

GAME 1

Village:

Solved all control questions: **Yes** **No:**

Question number incorrect.....

- | | | | | | | |
|-----------------------|--|--|--|---|---|---|
| 1. Decision 1: |  |  |  | ; | A | B |
| 2. Decision 2: |  |  |  | ; | A | B |
| 3. Decision 3: |  |  |  | ; | A | B |
| 4. Decision 4: |  |  |  | ; | A | B |
| 5. Decision 5: |  |  |  | ; | A | B |
| 6. Decision 6: |  |  |  | ; | A | B |

The three displayed pictograms were used for the leaders rule decision. From left to right: Autocrat rule, Democratic rule and Pseudo Democratic rule.

4.6. PRE-EXPERIMENTAL SURVEYS

4.6.1. TRADITIONAL AUTHORITIES

**LEADER : VILLAGE HEADMAN
PRE-GAME QUESTIONNAIRE**

Date and Place of interview [TO BE FILLED IN BY INTERVIEWER]		
Day : <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/>	Month: <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/>	Village: <input style="width: 95%;" type="text"/>
Interviewer: <input style="width: 95%;" type="text"/>		
Name of interviewed person: <input style="width: 95%;" type="text"/>		

MODULE A. Personal characteristics	
A1. What is your gender?	1. <input type="checkbox"/> Male 2. <input type="checkbox"/> Female
A2. What is your marital status?	1. <input type="checkbox"/> Married 2. <input type="checkbox"/> Partnership/Cohabiting 3. <input type="checkbox"/> Single (Never Married) 4. <input type="checkbox"/> Divorced/Separated 5. <input type="checkbox"/> Widowed
A3. How old are you?	

A4a. What is the highest grade you attained at school? [INTERVIEWER: FILL IN "0" IF PERSON NEVER ATTENDED SCHOOL]	Grade _____
A4b. Do you have a college or university degree?	1. <input type="checkbox"/> Yes, specify degree in: 2. <input type="checkbox"/> No
A5. Including yourself, how many people live in your household? Please consider only people who live for more than 6 months a year in your household	_____ people
A6. Since when have you been living in this village?	Since _____
A7. What religion do you identify with?	1. <input type="checkbox"/> Christian, specify: 2. <input type="checkbox"/> Traditional 3. <input type="checkbox"/> Muslim 4. <input type="checkbox"/> Other, specify:
A8a. What ethnic group do you identify with?	
A8b. If Owambo, please specify the clan you identify with	

MODULE F. Functions and Procedures PART A

F1. Since when have you been the traditional leader in this village?	
F2a. Is there a term of office?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No [GO TO F3b]
F2b. If yes, how long (how many years) is the term of office?	
F2c. Had you been in the position of the village headman once before?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No [GO TO F2e]
F2d. If you had been in the position once before, for how many years had you been previously in the position of the village headman?	
F2e. Will you run for another term when your current term has expired?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No
F3b. Please explain the way you came into this position [INTERVIEWER: DO NOT READ ANSWER POSSIBILITIES ALOUD. LET PERSON EXPLAIN AND CHOOSE THEN MOST APPLICABLE ANSWER, ADD COMMENTS IF NECESSARY]	1. <input type="checkbox"/> Was elected by the villagers 2. <input type="checkbox"/> Was elected by a specific group of villagers (e.g. the elderly), specify 3. <input type="checkbox"/> Was elected by someone else, please specify by whom: 4. <input type="checkbox"/> Was appointed, specify by whom: 5. <input type="checkbox"/> Inherited the position (birth right or something similar) 6. <input type="checkbox"/> Other, specify:
F4. I would like to learn more about the election procedures. In particular, we are interested in who can run for office, who is eligible to vote, and how elections take place	

<p>F4a. Who can become a village headman? [INTERVIEWER: ARE THERE ANY RESTRICTIONS REGARDING AGE, VILLAGE RESIDENCE (I.E. ONLY VILLAGERS), FAMILY/CLAN AFFILIATION]</p>	
<p>F4b. Who is allowed to vote/appoint the village headman? [INTERVIEWER: IS THERE A MINIMUM AGE? ARE THERE SOME GROUPS OF PEOPLE EXCLUDED FROM THE ELECTION/APPOINTMENT? WHO HAS A VOTE?]</p>	
<p>F4c. Please explain me how exactly the election/appointment procedure took place? [INTERVIEWER: DO NOT READ ANSWER POSSIBILITIES ALOUD. LET PERSON EXPLAIN AND CHOOSE THEN MOST APPLICABLE ANSWER, ADD COMMENTES IF NECESSARY]</p> <p>1. <input type="checkbox"/> Voting/appointment was completely anonymous [i.e. by secret ballot] 2. <input type="checkbox"/> Voting/appointment took place publicly [voting was observable by others]..... 3. <input type="checkbox"/> Other, specify</p>	
<p>F5. If any, how many people were running for the position as the village headman? [INTERVIEWER: WRITE 0 IF NOT APPLICABLE]</p>	
<p>F6. What were your main motivations to run for office?</p>	
<p>F7. Would you please tell me what are your major functions/tasks as a traditional leader:</p>	

Module G: Social Involvement		
G1. Are you a member of any of the following board/councils:	1. Yes 2. No	Specify position if applicable
G1a Council of traditional authority		
G1b. Local water point <i>committee</i>		
G1c. Management committee of a communal conservancy		
G1d. Board of a political party		
G1e. Board of a religious organization		
G1f. Board of a sport or recreational organization		
G1g. Board of a professional organization		
G1h. Other, specify:		
		NAME

G2. Could you give me the names of your 5 closest friends in this village? [INTERVIEWER: IF RESPONDENT IS HESITANT; TELL THAT WE WON'T SHARE THIS INFORMATION WITH ANYONE IN THIS VILLAGE]	1)	
	2)	
	3)	
	4)	
	5)	
G3. If you had a problem or needed advice, to whom in your village would you talk?	NAME	
	1)	
	2)	
G4a. Apart from those living in your household, do you have any relatives in this village?	1. <input type="checkbox"/> Yes	
	2. <input type="checkbox"/> No	
G4b. Could you give me the names of 5 relatives of yours in this village, and tell me the kin relationship to this person. If possible, please name people from different households, and only people of 18 years or older)	Name	Relationship
	1)	
	2)	
	3)	
	4)	
	5)	
G5. How is your relationship to the following persons	1. A close friend of mine	
	2. A relative of mine	
	3. Neither friend, nor relative	
G5b. The chairperson of the local water point association		
G5c. The traditional healer / witch doctor		
G5d. The local councillor		
G5e. The local priest/pastor of the church you belong to		
G6. Who would you say is the most influential person in your village?	1. <input type="checkbox"/> I myself	
	2. <input type="checkbox"/> The traditional healer / witch doctor	
	3. <input type="checkbox"/> The local councillor	
	4. <input type="checkbox"/> The local priest/pastor	
	5. <input type="checkbox"/> The chairperson of the Water point committee	
	6. <input type="checkbox"/> Other, specify:	

Module H: Invitation “ORGANIZATIONAL SUPPORT”

When we come back to your village in order to conduct the research study, we need one person from this village who could help us with the logistics. This person would organize a room, help recruiting people and prepare coffee, tea and cookies during the day when the study takes place. Of course, the coffee, tea and cookies would be provided by us. Could you recommend us one person (and two substitutes) who would be able to do this - The person will be paid 100 NAD for helping us. [INTERVIEWER: REPORT NAME AND ADDRESS]

NAME	ADDRESS
1.	
2.	

4.6.2. DEMOCRATIC LEADER: WATERPOINT CHAIRPERSON

**LEADER: CHAIRPERSON WPC
PRE-GAME QUESTIONNAIRE**

Date and Place of interview [TO BE FILLED IN BY INTERVIEWER]		
Day : <input type="text"/> <input type="text"/> <input type="text"/>	Month: <input type="text"/> <input type="text"/> <input type="text"/>	Village:
Interviewer:		
Name of interviewed person:		

MODULE A. Personal characteristics	
A1. What is your gender?	3. <input type="checkbox"/> Male 4. <input type="checkbox"/> Female
A2. What is your marital status?	1. <input type="checkbox"/> Married 2. <input type="checkbox"/> Partnership/Cohabiting 3. <input type="checkbox"/> Single (Never Married) 4. <input type="checkbox"/> Divorced/Separated 5. <input type="checkbox"/> Widowed
A3. How old are you?	
A4a. What is the highest grade you attained at school? [INTERVIEWER: FILL IN "0" IF PERSON NEVER ATTENDED SCHOOL]	Grade _____
A4b. Do you have a college or university degree?	3. <input type="checkbox"/> Yes, specify degree in: 4. <input type="checkbox"/> No
A5. Including yourself, how many people live in your household? Please consider only people who live for more than 6 months a year in your household	_____ people
A6. Since when have you been living in this village?	Since _____
A7. What religion do you identify with?	5. <input type="checkbox"/> Christian, specify: 6. <input type="checkbox"/> Traditional 7. <input type="checkbox"/> Muslim 8. <input type="checkbox"/> Other, specify:
A8a. What ethnic group do you identify with?	
A8b. If Owambo, please specify the clan you identify with	

MODULE F. Functions and Procedures PART A	
F1. Since when have you been in the position of the chairperson?	
F2a. Is there a term of office?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No [GO TO F2c]
F2b. If yes, how long (how many years) is the term of office?	

F2c. Had you been part of the local water point committee before?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No [GO TO F2e]								
F2d. If yes, please list all previous positions and terms of office	Terms of office (from month/year to month/year)								
<table border="1"> <tr> <td data-bbox="177 344 967 405">Position</td> <td data-bbox="967 344 1433 405">From _____ to _____</td> </tr> <tr> <td data-bbox="177 405 967 465">F2d1.</td> <td data-bbox="967 405 1433 465">From _____ to _____</td> </tr> <tr> <td data-bbox="177 465 967 526">F2d2.</td> <td data-bbox="967 465 1433 526">From _____ to _____</td> </tr> <tr> <td data-bbox="177 526 967 586">F2d3.</td> <td data-bbox="967 526 1433 586">From _____ to _____</td> </tr> </table>	Position	From _____ to _____	F2d1.	From _____ to _____	F2d2.	From _____ to _____	F2d3.	From _____ to _____	
Position	From _____ to _____								
F2d1.	From _____ to _____								
F2d2.	From _____ to _____								
F2d3.	From _____ to _____								
F2e. Will you run for another term when your current term has expired?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No								
<p>F3. Please explain the way you came into this position?</p> <p>[INTERVIEWER: DO NOT READ ANSWER POSSIBILITIES ALOUD. LET PERSON EXPLAIN AND CHOOSE THEN MOST APPLICABLE ANSWER, ADD COMMENTES IF NECESSARY]</p>	<p>7. <input type="checkbox"/> Was directly elected as chairperson by the water point users</p> <p>8. <input type="checkbox"/> Was elected as member of the water point committee and then elected as chairperson by committee members</p> <p>9. <input type="checkbox"/> Was elected by someone else, please specify by whom:</p> <p>10. <input type="checkbox"/> Was appointed, specify by whom:</p> <p>11. <input type="checkbox"/> Inherited the position (birth right or something similar)</p> <p>12. <input type="checkbox"/> Other, specify:</p>								
<p>F4c. Please explain me how exactly the elections/appointments took place?</p> <p>[INTERVIEWER: DO NOT READ ANSWER POSSIBILITIES ALOUD. LET PERSON EXPLAIN AND CHOOSE THEN MOST APPLICABLE ANSWER, ADD COMMENTES IF NECESSARY]</p> <p>4. <input type="checkbox"/> Voting/appointment was completely anonymous [i.e. by secret ballot]</p> <p>5. <input type="checkbox"/> Voting/appointment took place publicly [voting was observable by others]</p> <p>6. <input type="checkbox"/> Other, specify</p>									
<p>F5a. If any, how many people were running for the position as the chairperson?</p> <p>[INTERVIEWER: WRITE 0 IF NOT APPLICABLE]</p>									
F5b. How many more votes did you get than the next candidate?									
<p>F6. What were your main motivations to run for office?</p>									
<p>F7. Would you please tell me what are your major functions/tasks:</p>									

Module G: Social Involvement

G1. Are you a member of any of the following board/councils:	1. Yes 2. No	Specify position if applicable
G1a. Council of traditional authority		
G1c. <i>Management committee</i> of a communal conservancy		
G1d. Board of a political party		
G1e. Board of a religious organization		
G1f. Board of a sport or recreational organization		
G1g. Board of a professional organization		
G1h. Other, specify:		
G2. Could you give me the names of your 5 closest friends in this village? [INTERVIEWER: IF RESPONDENT IS HESITANT; TELL THAT WE WON'T SHARE THIS INFORMATION WITH ANYONE IN THIS VILLAGE]	NAME	
	1)	
	2)	
	3)	
	4)	
	5)	
G3. If you had a problem or needed advice, to whom in your village would you talk?	NAME	
	1)	
	2)	
	3)	
G4a. Apart from those living in your household, do you have any relatives in this village? 1. Yes 2. No		
G4b. Could you give me the names of 5 relatives of yours in this village, and tell me the kin relationship to this person. If possible, please name people from different households, and only people of 18 years or older.	Name	Relationship
	1)	
	2)	
	3)	
	4)	
	5)	
	6)	
G5. How is your relationship to the following persons	4. A close friend of mine 5. A relative of mine 6. Neither friend, nor relative	
G5a. The local traditional village headman		
G5c. The traditional healer / witch doctor		
G5d. The local councillor		
G5e. The local priest/pastor of the church you belong to		
G6. Who would you say is the most influential person in your village?	7. <input type="checkbox"/> I myself 8. <input type="checkbox"/> The traditional healer / witch doctor 9. <input type="checkbox"/> The local councillor 10. <input type="checkbox"/> The local priest/pastor 11. <input type="checkbox"/> The local traditional village headman 12. <input type="checkbox"/> Other, specify:	

4.7. POST-EXPERIMENTAL SURVEY

4.7.1. TRADITIONAL AUTHORITIES

**LEADER : Village Headman
POST-GAME/EXPERIMENTAL QUESTIONNAIRE**

Date and Place of experiment [TO BE FILLED IN BY INTERVIEWER]		
Day : <input type="text"/> <input type="text"/>	Month: <input type="text"/> <input type="text"/>	Village:
Interviewer:		
Name of interviewed person:		

MODULE F. Functions and Procedures PART B

F10a. Do you receive a fixed salary from the government for your work as a traditional leader?	1. <input type="checkbox"/> Yes, specify amount and payment period (i.e. daily, weekly, monthly...) Amount: _____ NAD Period: _____ 2. <input type="checkbox"/> No
F10b. What other kind of payments do you receive for your activities as a traditional leader (e.g. jurisdiction / case fees, grazing fees, land fees, other payments/fees/levies from community members?)	
F11. How much time do you spend on your activities as a village headman in a typical week?	_____ hours
F12. Do you have the right to grant access to grazing land / agricultural land?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No [GO TO F13]
F12b. If yes, which of the following best describes the way you decide about access to land [INTERVIEWER: DO NOT READ ANSWER POSSIBILITIES ALOUD. LET PERSON EXPLAIN AND THEN CHOOSE MOST APPLICABLE ANSWER CATEGORY]	1. <input type="checkbox"/> I alone take the decision 2. <input type="checkbox"/> I alone take this decision, but I seek other's opinion before I decide. Please specify whose opinions: 3. <input type="checkbox"/> I take this decision together with other people, please specify with whom: 4. <input type="checkbox"/> Other, specify:
F12c. How relevant are each of the following criteria for your decision to assign land use rights to community members? Is the criterion highly relevant/important, somewhat relevant, rather irrelevant, not at all relevant [INTERVIEWER: FOR EACH ITEM, REPORT 1 IF "HIGHLY RELEVANT", 2 IF "SOMEWHAT RELEVANT ETC.]	1. Highly relevant 2. Somewhat relevant 3. Rather irrelevant 4. Not at all relevant
F12c1. Neediness (economic situation) of the applicant	
F12c2. Applicant's power/social status in the community	
F12c3. You know the applicant is trustworthy	
F12c4. Your degree of kinship/consanguinity/ to the applicant	
F12d. What are further criteria according to which you assign land use rights?	

F12e. Do the beneficiaries of granted land use rights have to pay a fee or levy to you?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No
F13. Please tell me for each of the following statements whether it is true that ... [INTERVIEWER: FOR EACH ITEM REPORT 1 IF "YES" AND 2 IF "NO"]	1. Yes 2. No
F13a. The leadership position helps me to improve my financial situation	
F13b. The leadership position increases my popularity among villagers	
F13c. The leadership position increases my status in the community	
F13d. The leadership fosters my connections to people outside the villages	

MODULE C. Opinions	
C. Please indicate for each of the statement whether you disagree strongly, disagree a little, neither agree nor disagree, agree a little, or strongly agree [INTERVIEWER: FOR EACH ITEM, REPORT 1 IF "STRONGLY DISAGREE", 2 IF "DISAGREE A LITTLE" ETC.]	1. Strongly disagree 2. Disagree a little 3. Agree a little 4. Strongly agree 5. Don't know
C1. For important decisions members of a group should be allowed to vote	
C2. Most people can learn to be leaders- it's not a matter of birth.	
C3. Democratic elections in this village ensure that the elected authorities act in the interests of their people	
C4. In most cases, failures in this village are traceable to bad leadership	
C5. Schools and parents should teach children to obey authority	
C6. Favours friends, relatives or supporters over others in the course of ones duties as a leader is sometimes justified	
C7. On the whole, men make better political leaders than women do	
C8. A leader has to serve all his/her people including those who did not vote for him/her or are not friends with him/her	
C9. Accepting a bribe in the course of ones duties is sometimes justified	
C10. Most people in this village can be trusted	
C11. On the whole, more-educated people make better political leaders than the less-educated do	
C12. On the whole, elders make better political leaders than the youth do	
C13. My actions reflect my core values	
C14. I seek others' opinions before making up my own mind	
C15. I openly share my feelings with others.	
C16. I do allow group pressure to control me	
C17. I listen closely to the ideas of those who disagree with me	
C18. I let others know who I truly am as a person.	
C19. Other people know where I stand on controversial issues	

C20. I do not emphasize my own point of view at the expense of others	
C21. I rarely present a “false” front to others	
C22. My morals guide what I do as a leader	
C23. I listen very carefully to the ideas of others before making decisions	
C24. I admit my mistakes to others	
C25. I see myself as someone who is generally trusting	
C26. I see myself as someone who is reserved	
C27. I see myself as someone who tends to be lazy	
C28. I see myself as someone who is relaxed, handles stress well	
C29. I see myself as someone who is outgoing, sociable	
C30. I see myself as someone who has few artistic interests	
C31. I see myself as someone who tends to find fault with others	
C32. I see myself as someone who does a thorough job	
C33. I see myself as someone who gets nervous easily	
C34. I see myself as someone who has an active imagination	
C35. People have different views about themselves and how they relate to the world. Which of the following is the most and second most applicable statement	
	Most applicable
	Second most applicable
a. I see myself as part of the Namibian nation	<input type="checkbox"/>
b. I see myself as part of my local community	<input type="checkbox"/>
c. I see myself as part of my ethnic group	<input type="checkbox"/>
d. I see myself as part of my kinship/clan	<input type="checkbox"/>
e. I see myself as a world citizen	<input type="checkbox"/>
f. I see myself as an autonomous individual	<input type="checkbox"/>

Module D: Economic situation	
D1a. What is your main source of income?	
1. Salary from government/public sector 2. Wages or salaries from private sector 3. Agriculture 4. Livestock farming 5. Own business (self-employment) 6. Pension (old age / disability) 7. Transfers from family members/friends 8. Other source, specify: _____	<input type="checkbox"/>
D1b. How much do you earn in an ordinary month?	_____ NAD
D2. What is the approximate total income of your household in an ordinary month?	_____ NAD

D3. Please tell me how many of each kind of livestock <i>your household</i> possesses:	
D3a. Cattle	
D3b. Sheep	
D3c. Goats	
D4. Considering your household's current financial situation in comparison to other households in your village, would you say that you are...	
1. Better off than most other households 2. Worse off than most other households 3. Neither better nor worse off	
D5. Does your household have the following assets?	PLEASE FILL IN "1" for yes and "2" for no
1. Yes	
2. No	
Radio	
Television	
Cell phone	
Fridge / Refrigerator	
Washing machine	
Stove (electric, paraffin, kerosin)	
Sewing machine	
Car / Automotive	
Motor cycle / scooter	
Bicycle	
Donkey Cart / Ox cart	
Generator	
Plough	
D6. What is the household's main source of drinking water? (mark only one)	1. <input type="checkbox"/> Private tap 2. <input type="checkbox"/> Public tap 3. <input type="checkbox"/> Water tank 4. <input type="checkbox"/> Well 5. <input type="checkbox"/> Other, specify:
D7a. What is the main material used for the outer walls of your household's main dwelling?	1. <input type="checkbox"/> Cement blocks / bricks / stones 2. <input type="checkbox"/> Corrugated iron / zinc 3. <input type="checkbox"/> Sticks 4. <input type="checkbox"/> Thatch, grass 5. <input type="checkbox"/> Other, specify:

4.7.2. DEMOCRATIC LEADERS: WATERPOINT CHAIRPERSON

**LEADER: CHAIRPERSON WPC
POST-GAME/EXPERIMENTAL QUESTIONNAIRE**

Date and Place of experiment [TO BE FILLED IN BY INTERVIEWER]		
Day : <input type="text"/> <input type="text"/>	Month: <input type="text"/> <input type="text"/>	Village:
Interviewer:		

Name of interviewed person: _____

MODULE F. Functions and Procedures PART B

F10b. What kind of payments do you receive for your activities as a water point committee member (e.g. attendance fees, transport fees etc.)?	
F11. How much time do you spend on your activities as a chairperson in a typical week?	_____ hours
Qa. If there is an important water-related decision to be taken, who has the final say	1. <input type="checkbox"/> I as the chairperson [GO TO F13] 2. <input type="checkbox"/> The committee 3. <input type="checkbox"/> The community/water point association 4. <input type="checkbox"/> The Directorate of Rural Water Supply 5. <input type="checkbox"/> Other, specify: _____
Qb. If decision is made by the committee or the community, according to what electoral procedure is it made?	1. <input type="checkbox"/> By majority vote 2. <input type="checkbox"/> By consensus 3. <input type="checkbox"/> Other, specify: _____
F13. Please tell me for each of the following statements whether it is true that ... [INTERVIEWER: FOR EACH ITEM REPORT 1 IF "YES" AND 2 IF "NO"]	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No
F13a. The leadership position helps me to improve my financial situation	
F13b. The leadership position increases my popularity among villagers	
F13c. The leadership position increases my status in the community	
F13d. The leadership fosters my connections to people outside the villages	
18a. What is the source of water supply for your village? [INTERVIEWER: IF MORE THAN ONE APPLICABLE, TICK ALL ANSWER CATEGORIES THAT WERE MENTIONED]	1. <input type="checkbox"/> Pipeline (NamWater) 2. <input type="checkbox"/> Boreholes 3. <input type="checkbox"/> Other
F18b. How many people wrongly report water consumption or refuse to pay the water fees?	1. <input type="checkbox"/> Almost all 2. <input type="checkbox"/> More than half 3. <input type="checkbox"/> Less than half, but still a sizeable fraction 4. <input type="checkbox"/> Only very few 5. <input type="checkbox"/> None
F18c. What do you think are the main reasons why people wrongly report their water consumption or refuse to pay water fees? [INTERVIEWER: DO NOT READ ANSWER POSSIBILITIES ALOUD. LET RESPONDEND TELL AND THEN CHOOSE MOST APPLICABLE. IF MORE THAN ONE APPLICABLE, TICK ALL ANSWER CATEGORIES THAT WERE MENTIONED]	1. <input type="checkbox"/> Poverty [people are too poor to afford fee] 2. <input type="checkbox"/> Find that access to water is basic right for which one does not have to pay 3. <input type="checkbox"/> Other, specify: _____
F18d. What do you do with people who refuse to pay? [INTERVIEWER: DO NOT READ ANSWER POSSIBILITIES ALOUD. LET RESPONDEND TELL AND THEN CHOOSE MOST APPLICABLE. IF MORE THAN ONE APPLICABLE, TICK ALL ANSWER CATEGORIES THERE WERE MENTIONED]	1. <input type="checkbox"/> Report to police 2. <input type="checkbox"/> Report to Rural Water Supply 3. <input type="checkbox"/> Report to traditional authority 4. <input type="checkbox"/> Try to convince them from the necessity of paying the fees 5. <input type="checkbox"/> Nothing 6. <input type="checkbox"/> Refusing access 7. <input type="checkbox"/> Other, specify: _____

MODULE C. Opinions

<p>C. Please indicate for each of the statement whether you disagree strongly, disagree a little, neither agree nor disagree, agree a little, or strongly agree [INTERVIEWER: FOR EACH ITEM, REPORT 1 IF “STRONGLY DISAGREE”, 2 IF “DISAGREE A LITTLE” ETC.]</p>	<p>6. Strongly disagree 7. Disagree a little 8. Agree a little 9. Strongly agree 10. Don't know</p>
C1. For important decisions members of a group should be allowed to vote	
C2. Most people can learn to be leaders- it's not a matter of birth.	
C3. Democratic elections in this village ensure that the elected authorities act in the interests of their people	
C4. In most cases, failures in this village are traceable to bad leadership	
C5. Schools and parents should teach children to obey authority	
C6. Favouring friends, relatives or supporters over others in the course of ones duties as a leader is sometimes justified	
C7. On the whole, men make better political leaders than women do	
C8. A leader has to serve all his/her people including those who did not vote for him/her or are not friends with him/her	
C9. Accepting a bribe in the course of ones duties is sometimes justified	
C10. Most people in this village can be trusted	
C11. On the whole, more-educated people make better political leaders than the less-educated do	
C12. On the whole, elders make better political leaders than the youth do	
C13. My actions reflect my core values	
C14. I seek others' opinions before making up my own mind	
C15. I openly share my feelings with others.	
C16. I do allow group pressure to control me	
C17. I listen closely to the ideas of those who disagree with me	
C18. I let others know who I truly am as a person.	
C19. Other people know where I stand on controversial issues	
C20. I do not emphasize my own point of view at the expense of others	
C21. I rarely present a "false" front to others	
C22. My morals guide what I do as a leader	
C23. I listen very carefully to the ideas of others before making decisions	
C24. I admit my mistakes to others	
C25. I see myself as someone who is generally trusting	
C26. I see myself as someone who is reserved	

C27. I see myself as someone who tends to be lazy		
C28. I see myself as someone who is relaxed, handles stress well		
C29. I see myself as someone who is outgoing, sociable		
C30. I see myself as someone who has few artistic interests		
C31. I see myself as someone who tends to find fault with others		
C32. I see myself as someone who does a thorough job		
C33. I see myself as someone who gets nervous easily		
C34. I see myself as someone who has an active imagination		
C35. People have different views about themselves and how they relate to the world. Which of the following is the most and second most applicable statement		
	Most applicable	Second most applicable
g. I see myself as part of the Namibian nation	<input type="checkbox"/>	<input type="checkbox"/>
h. I see myself as part of my local community	<input type="checkbox"/>	<input type="checkbox"/>
i. I see myself as part of my ethnic group	<input type="checkbox"/>	<input type="checkbox"/>
j. I see myself as part of my kinship/clan	<input type="checkbox"/>	<input type="checkbox"/>
k. I see myself as a world citizen	<input type="checkbox"/>	<input type="checkbox"/>
l. I see myself as an autonomous individual	<input type="checkbox"/>	<input type="checkbox"/>

Module D: Economic situation	
D1a. What is <u>your</u> main source of income? 9. Salary from government/public sector 10. Wages or salaries from private sector 11. Agriculture 12. Livestock farming 13. Own business (self-employment) 14. Pension (old age / disability) 15. Transfers from family members/friends 16. Other source, specify: _____	<input type="checkbox"/>
D1b. How much do <u>you</u> earn in an ordinary month?	_____ NAD
D2. What is the approximate total income of your <u>household</u> in an ordinary month?	_____ NAD
D3. Please tell me how many of each kind of livestock <i>your household</i> possesses:	
D3a. Cattle	
D3b. Sheep	
D3c. Goats	
D4. Considering your household's current financial situation in comparison to other households in your village, would you say that you are...	
4. Better off than most other households	

5. Worse off than most other households	
6. Neither better nor worse off	
D5. Does your household have the following assets?	PLEASE FILL IN "1" for yes and "2" for no
3. Yes	
4. No	
Radio	
Television	
Cell phone	
Fridge / Refrigerator	
Washing machine	
Stove (electric, paraffin, kerosin)	
Sewing machine	
Car / Automotive	
Motor cycle / scooter	
Bicycle	
Donkey Cart / Ox cart	
Generator	
Plough	
D6. What is the household's main source of drinking water? (mark only one)	6. <input type="checkbox"/> Private tap 7. <input type="checkbox"/> Public tap 8. <input type="checkbox"/> Water tank 9. <input type="checkbox"/> Well 10. <input type="checkbox"/> Other, specify:
D7a. What is the main material used for the outer walls of your household's main dwelling?	6. <input type="checkbox"/> Cement blocks / bricks / stones 7. <input type="checkbox"/> Corrugated iron / zinc 8. <input type="checkbox"/> Sticks 9. <input type="checkbox"/> Thatch, grass 10. <input type="checkbox"/> Other, specify:

4.7.3. VILLAGERS

QUESTIONNAIRE VILLAGERS

Date and Place of experiment [TO BE FILLED IN BY INTERVIEWER]			
Day : <input style="width: 40px;" type="text"/>	Month: <input style="width: 40px;" type="text"/>	P No:	Village:

MODULE A. Personal characteristics	
A1. What is your gender? (circle your answer)	1. <input type="checkbox"/> Male 2. <input type="checkbox"/> Female
A3. How old are you?	_____ years
A4a. What is the highest grade you attained at school? [FILL IN "0" IF YOU NEVER ATTENDED SCHOOL]	Grade _____
A6. Since when have you been living in this village?	<input type="checkbox"/> All my life <input type="checkbox"/> Since _____ (year)
A9. What ethnic group do you identify with?	
A9b. If Ovambo, please specify the clan you identify with	

MODULE B. Village life and local organizations

B1. What would you say is the most influential village position?	1. <input type="checkbox"/> The local traditional leader 2. <input type="checkbox"/> The chairperson of the Water Point committee 3. <input type="checkbox"/> The traditional healer / witch doctor 4. <input type="checkbox"/> The local councilor 5. <input type="checkbox"/> The local priest/pastor 6. <input type="checkbox"/> Other, please tell us who:					
B2. Who or which organization in this village makes decisions and rules regarding ...	The local Water point committee	The local village headmen	The local government	The villagers	Each individual him/herself	Someone else
B2a. Access to and use of the village's water resources						
B2b. Access to and use of the village's agricultural land						
B2c. Access to and use of the village's grazing land						
LOCAL WATER POINT COMMITTEE						
B3. What is the name of the chairperson of the local water point association?						
B4. Are you currently member of the local water point committee?	1. <input type="checkbox"/> Yes, specify position: 2. <input type="checkbox"/> No					
B5a. Did you vote in the last water point committee election?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No [GO TO B6]					
B5b. If yes, did you vote for the current chairperson?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No					
B6. How many candidates were running for the office of the chair person in the last elections?						
B7. Please indicate for each of the following statements regarding the <i>last election of the water point management</i> whether you disagree strongly, disagree a little, agree a little, or strongly agree	Strongly disagree	Disagree a little	Agree a little	Strongly agree	Don't know / Not applicable	
B7a. The election votes were counted by a group of trustworthy people						
B7b. The elections were held in a way that nobody could see for whom the other people in this village voted						
B7c. Some candidates that were interested to become a member of the water point committee were intimidated during the elections and chose not to run for office						
B7d. Elected candidates made promises that they did not keep						
B7e. Some people in this village were paid in order to vote for a certain candidate						
B7f. I felt pressure to vote for a certain candidate						

B8. Please indicate for each of the following statements regarding the water point management whether you disagree strongly, disagree a little, agree a little, or strongly agree	Strongly disagree	Disagree a little	Agree a little	Strongly agree	Don't know / Not applicable
B8a. Small repairs are directly undertaken by the WPC					
B8b. The WPC takes decisions in a way that they are understandable for the people					
B8c. The WPC takes appropriate action against people who wrongly report their water consumption or refuse to pay the fees					
B8d. The chairperson of the WPC exploits his/her position to his/her own benefit					
B9. How many people in your village wrongly report their water consumption to the water point committee?	6. <input type="checkbox"/> Almost all 7. <input type="checkbox"/> More than half 8. <input type="checkbox"/> Less than half, but still a sizeable fraction 9. <input type="checkbox"/> Only very few 10. <input type="checkbox"/> None 11. <input type="checkbox"/> Don't know				
B10a. Overall, how satisfied are you with the performance of the water point committee? Are you very dissatisfied, somewhat dissatisfied, somewhat satisfied, very satisfied	1. <input type="checkbox"/> Very satisfied 2. <input type="checkbox"/> Somewhat satisfied 3. <input type="checkbox"/> Somewhat dissatisfied 4. <input type="checkbox"/> Very dissatisfied 5. <input type="checkbox"/> Don't know				
B10b. And how satisfied are you with the performance of the CHAIRPERSON of the water point committee?	1. <input type="checkbox"/> Very satisfied 2. <input type="checkbox"/> Somewhat satisfied 3. <input type="checkbox"/> Somewhat dissatisfied 4. <input type="checkbox"/> Very dissatisfied 5. <input type="checkbox"/> Don't know				
B10c. Imagine tomorrow were water point committee elections, would you vote for the current chairperson?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No				
LOCAL VILLAGE HEADMAN					
B11. Please indicate for each of the following statements regarding the local village headman whether you disagree strongly, disagree a little, agree a little, or strongly agree	Strongly disagree	Disagree a little	Agree a little	Strongly agree	Don't know / Not applicable
B11a. In principle, everybody from this village could have become the village headman if he/she wanted to					
B11b. Prior to his inauguration, the village headman made promises that he did not keep					
B11c. The village headman allocates access to grazing or farming land in a fair manner					
B11d. In cases of arguments/conflicts, the village headman strives to find a fair solution					
B11e. The headmen treats all people equally in the traditional court					
B11f. The headman takes actions against people who disobey the rules					
B11g. The headman takes decisions in a way that they are understandable for the people					
B11h. The headman exploits his position to his own interest					
B11i. The creation of the water point committee has reduced the power of the headman in this village					

B12a. How satisfied are you with the performance of the village headman?	1. <input type="checkbox"/> Very satisfied 2. <input type="checkbox"/> Somewhat satisfied 3. <input type="checkbox"/> Somewhat dissatisfied 4. <input type="checkbox"/> Very dissatisfied 5. <input type="checkbox"/> Don't know
B12b. If there was an election for the position of the local village headman leader, would you vote for the current headman?	1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No

Module C: Opinions					
C. Please indicate for each of the statement whether you disagree strongly, disagree a little, neither agree nor disagree, agree a little, or strongly agree	Strongly disagree	Disagree a little	Agree a little	Strongly agree	Don't know
C1. For important decisions members of a group should be allowed to vote					
C2. Most people can learn to be leaders- it's not a matter of birth.					
C3. Democratic elections in this village ensure that the elected authorities act in the interests of their people					
C4. In most cases, failures in this village are traceable to bad circumstances rather than bad leadership					
C5. Schools and parents should teach children to obey authority					
C6. Favours friends, relatives or supporters over others in the course of ones duties as a leader is sometimes justified					
C7. On the whole, men make better political leaders than women do					
C8. A leader has to serve all his/her people including those who did not vote for him/her or are not friends with him/her					
C9. Accepting a bribe in the course of ones duties is sometimes justified					
C10. Most people in this village can be trusted					
C11. On the whole, more-educated people make better political leaders than the less-educated do					
C12. On the whole, elders make better political leaders than the youth do					

Module D: Economic situation	
D1a. What is <u>your</u> main source of income?	1. <input type="checkbox"/> Salary from government/public sector 2. <input type="checkbox"/> Wages or salaries from private sector 3. <input type="checkbox"/> Agriculture 4. <input type="checkbox"/> Livestock farming 5. <input type="checkbox"/> Own business (self-employment) 6. <input type="checkbox"/> Pension (old age / disability) 7. <input type="checkbox"/> Transfers from family members/friends 8. <input type="checkbox"/> Other source, specify: _____
D1b. How much do <u>you</u> earn in an ordinary month?	_____ NAD
D2. What is the approximate total income of your <u>household</u> in an ordinary month?	_____ NAD

D3. Please tell me how many of each kind of livestock <i>your household</i> possesses:	Number of animals	
D3a. Cattle		
D3b. Sheep		
D3c. Goats		
D4. Considering your household's current financial situation in comparison to other households in your village, would you say that you are...	1. <input type="checkbox"/> Better off than most other households 2. <input type="checkbox"/> Worse off than most other households 3. <input type="checkbox"/> Neither better nor worse off	
D5. Does your household have the following assets?	YES	NO
Radio		
Television		
Cell phone		
Fridge / Refrigerator		
Freezer		
Washing machine		
Stove (electric, paraffin, kerosin)		
Sewing machine		
Car / Automotive		
Motor cycle / scooter		
Bicycle		
Donkey Cart / Ox cart		
Generator		
Plough		
D6. What is the household's main source of drinking water? (mark only one)	11. <input type="checkbox"/> Private tap 12. <input type="checkbox"/> Public tap 13. <input type="checkbox"/> Water tank 14. <input type="checkbox"/> Well 15. <input type="checkbox"/> Other, specify:	
D7a. What is the main material used for the floor of your household's main dwelling	1. <input type="checkbox"/> Sand 2. <input type="checkbox"/> concrete 3. <input type="checkbox"/> mud, clay and/or cow dung 4. <input type="checkbox"/> wood 5. <input type="checkbox"/> other, <i>specify</i>	
D7b. What is the main material used for the outer walls of your household's main dwelling?	11. <input type="checkbox"/> Cement blocks / bricks / stones 12. <input type="checkbox"/> Corrugated iron / zinc 13. <input type="checkbox"/> Sticks 14. <input type="checkbox"/> Thatch, grass 15. <input type="checkbox"/> Other, specify:	

Module E: Relationship to other participants

E1. How many of the other 11 participants in today's session are... [The maximum number is 11, the minimum is zero]	
E1a. Close friends of you	
E1b. Relatives of you	
E1c. You have had an argument/ fight in the past with	

E2. How is your relationship to...	1. A close friend of mine	2. A relative of mine	3. Neither friend, nor relative of mine
E2a. The local traditional leader			
E2b. The chairperson of the local water point committee			

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2024-03

IVO STEIMANIS, ESTHER BLANCO, BJÖRN VOLLAN

Conditional Payments for Democracy to Local Leaders Managing Natural Resources in Rural Namibia

Abstract

In this study, we provide causal evidence on the capacity of monetary incentives to encourage real-life local leaders managing water and land to improve their procedural fairness. We report results from incentivized decisions and surveys conducted with local leaders in rural Namibia (n=64) and their constituents (n=384). Conditional payments are introduced in a setting where leaders can select among different rules that vary in their perceived procedural fairness in distributing a monetary allocation. In a within-subject design we randomly introduce a small or large conditional payment for allowing for a vote. The majority of leaders (64%) embrace democratic decision-making initially. With payments there is a significant reduction in autocratic leadership, by switching mainly to appearing democratic while keeping control, but with no significant increase in truly democratic leadership. Explorative analyses reveal that the effects are mainly driven by extrinsically motivated leaders to govern, who are less democratic initially and who reap the conditional payments without effectively including constituents in the decision process. Our findings suggest that simply introducing conditional payments for democratic choices may not be sufficient to promote democratization of local governance for the management of natural resources, and caution against their blueprint use in pluralistic governance settings.

ISSN 1993-4378 (Print)

ISSN 1993-6885 (Online)