

SUPPLEMENTARY INFORMATION

Can elections reduce embezzlement? Experimental evidence on selection effects, public trust and citizens' tolerance for embezzlement.

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## Treatment effects on embezzlement

<i>DV: Fraction of Group Resources Embezzled</i>				
	Unweighted		Weighted	
	(1)	(2)	(3)	(4)
<i>OLS coefficients (standard errors in parentheses)</i>				
$\beta_1$ : Elections	-0.025 (0.030)	-0.013 (0.028)	-0.029 (0.029)	-0.025 (0.026)
$\beta_2$ : Transparency	-0.0086 (0.030)	0.0031 (0.028)	-0.010 (0.029)	0.0011 (0.026)
$\beta_3$ : Elections $\times$ Transparency	-0.031 (0.043)	-0.037 (0.039)	-0.047 (0.042)	-0.045 (0.037)
<i>P-Values for pre-specified hypothesis tests</i>				
Hypothesis 1a				
$H_0 : \beta_1 \geq 0$	0.207	0.321	0.160	0.172
$H_0 : \beta_1 + \beta_3 \geq 0$	0.032	0.037	0.005	0.004
Hypothesis 1b				
$H_0 : \beta_2 \geq 0$	0.388	0.544	0.366	0.516
$H_0 : \beta_2 + \beta_3 \geq 0$	0.093	0.114	0.026	0.050
Hypothesis 2				
$H_0 : \beta_3 \leq 0$	0.767	0.825	0.871	0.890
Observations (groups)	471	471	471	471
Municipality fixed effects	yes	yes	yes	yes
Group-level covariates		yes		yes

**Table A-1:** OLS estimates of average treatment effects on embezzlement. All specifications include municipality fixed effects, but omission of municipality effects does not noticeably change the results. Columns (2) and (4) include group-level covariates: Average baseline embezzlement preference, number of women in the group, ethno-linguistic fractionalization of the group, geographic fractionalization of the group (villages of origin), number of pre-existing social ties in the group (one missing value imputed at mean), highest level of education represented in the group (four missing values imputed at mean).

## Treatment effects on trust in the decision maker

<i>DV: Suspected Embezzlement</i>						
	Population-weighted			Unweighted		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>OLS coefficients</i>						
Elections	-0.080*** (0.025)	-0.083*** (0.025)	-0.087*** (0.021)	-0.088*** (0.025)	-0.084*** (0.025)	-0.087*** (0.021)
Transparency	-0.063** (0.027)	-0.066** (0.026)	-0.064*** (0.023)	-0.059** (0.028)	-0.060** (0.027)	-0.064*** (0.023)
Elections×Transparency	0.050 (0.035)	0.059* (0.035)	0.062 (0.029)	0.057 (0.035)	0.059* (0.034)	0.062** (0.029)
Constant	0.36*** (0.035)			0.37*** (0.02)	0.34*** (0.029)	
Observations (individuals)	1884	1776	1776	1884	1776	1776
Individual-level covariates		yes	yes		yes	yes
Municipality effects			yes			yes

Standard errors in parentheses, adjusted for clustering by group.

\* $p < 0.1$  \*\* $p < 0.05$  \*\*\* $p < 0.01$  (two-sided)

**Table A-2.** Estimates of average treatment effects on group members' expectations. Individual-level covariates are age, gender, years of education, and baseline embezzlement preference.

## Treatment effects on perceived fairness of the selection procedure

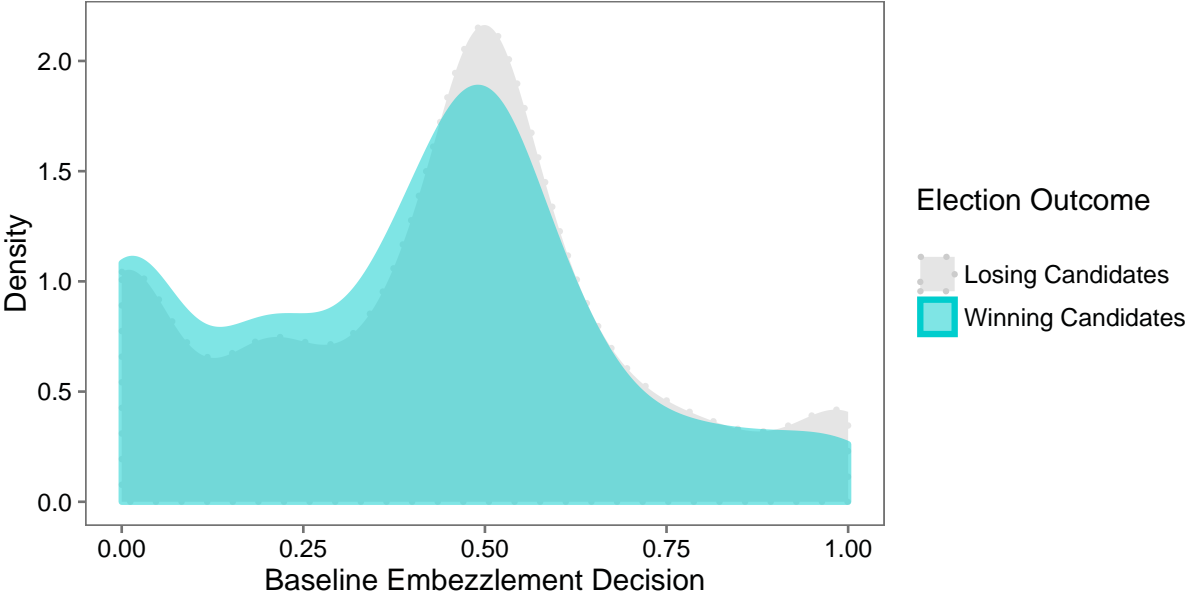
<i>DV: Perceived Procedural Fairness</i>				
	Population-weighted		Unweighted	
	(1)	(2)	(3)	(4)
<i>Proportion perceiving random selection as fair</i>				
Control group	0.918	0.918	0.915	0.915
<i>Change in proportion (estimated via Logit regression)</i>				
Elections	0.034*** (0.013)	0.031*** (0.000017)	0.024* (0.013)	0.020 (0.013)
Observations	2263	2127	2263	2127
Nonresponses (dropped)	92	88	92	88
Individual-level covariates		yes		yes

Standard errors in parentheses, adjusted for clustering by group.

\* $p < 0.1$  \*\* $p < 0.05$  \*\*\* $p < 0.01$  (two-sided)

**Table A-3.** Estimates of treatment effects on whether group members considered the procedure by which the decision maker was selected fair. Individual-level covariates are age, gender, years of education, baseline embezzlement preference, and transparency treatment.

Electoral selection effects



**Figure A-1.** Baseline embezzlement preferences of winning and non-winning candidates (kernel density estimates,  $n_{winners} = 236$ ,  $n_{losers} = 944$ ).

## Decision makers' baseline preferences predict actual and suspected embezzlement

	<i>DV: Actual Embezzlement</i>			<i>Avg. Suspected Embezzlement</i>
	Pooled (1)	Transparency (2)	Private Information (3)	Private Information (4)
<i>OLS coefficients</i>				
Baseline preference	0.56*** (0.046)	0.56*** (0.064)	0.56*** (0.033)	0.26*** (0.064)
Baseline preference × Elected	-0.016 (0.066)	0.0042 (0.089)	-0.041 (0.098)	-0.054 (0.092)
Elected	-0.022 (0.032)	-0.043 (0.044)	0.00050 (0.047)	-0.062 (0.044)
Constant	0.12 (0.023)	0.12 (0.032)	0.13 (0.033)	0.25 (0.031)
Observations (groups)	471	471	471	471
adj. $R^2$	0.37	0.40	0.34	0.13
F-statistic	93.92	53.81	41.13	13.12

Standard errors in parentheses.

\* $p < 0.1$  \*\* $p < 0.05$  \*\*\* $p < 0.01$  (two-sided)

**Table A-4.** Decision makers' baseline embezzlement preferences are strongly correlated both with their later embezzlement choices (Columns 1 to 3) and other group members' expectations (Column 4).

## Suspected embezzlement correlates with actual embezzlement

<i>DV: Suspected Embezzlement</i>				
	Population-weighted		Unweighted	
	(1)	(2)	(3)	(4)
<i>OLS coefficients</i>				
Actual embezzlement	0.58*** (0.031)	0.57*** (0.033)	0.51*** (0.037)	0.49*** (0.037)
Baseline embezzlement preference		0.026 (0.018)		0.067*** (0.019)
Intercept	0.11*** (0.011)	0.10*** (0.011)	0.14*** (0.012)	0.11*** (0.013)
Observations	1884	1884	1884	1884
Groups	471	471	471	471
adj. $R^2$	0.35	0.35	0.27	0.27

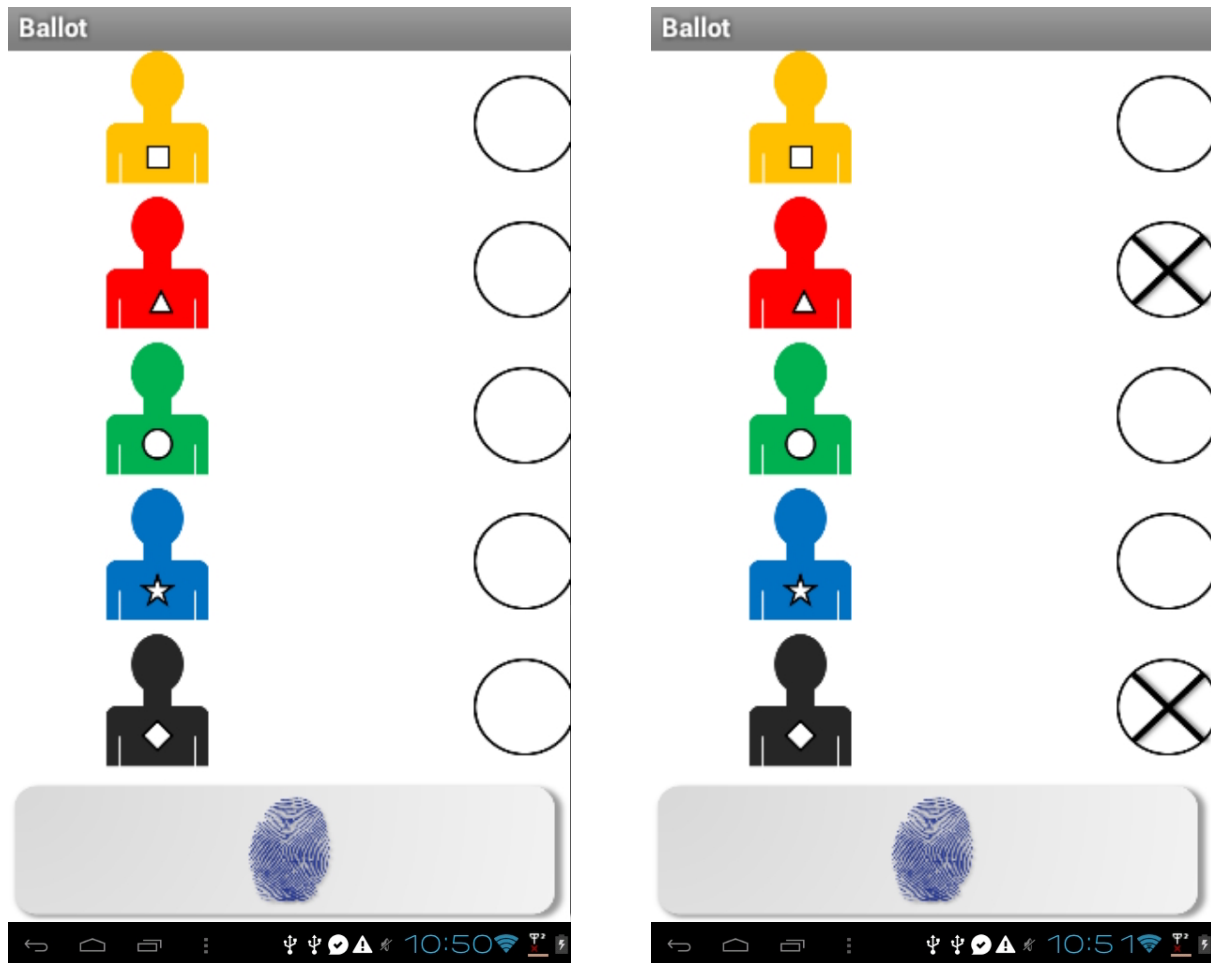
Standard errors in parentheses, adjusted for clustering by group.

\* $p < 0.1$  \*\* $p < 0.05$  \*\*\* $p < 0.01$  (two-sided)

**Table A-5.** Study participants' expectations correlate with actual embezzlement.



## Touch screen ballot



**Figure A-2.** Touch screen ballots. On the ballot, candidates were identified by their badge colors. The ballot order was randomized at the group level. Two candidates had to be selected in the first stage, one candidate in the runoff stage. Votes were cast secretly in a voting booth and submitted by touching the fingerprint symbol. After submitting, a lock screen was displayed and the vote was counted automatically. The tablet was returned to the facilitator, who would unlock it with a password and activate a blank ballot for the next voter.

## Population weights

In this study, both unweighed and population-weighted results are presented. Due to the sampling procedure, individuals from regions with fewer municipalities, municipalities with fewer villages, and villages with fewer voting-age residents were relatively more likely to be included in the study. Therefore, analyses at the level of individual group members were weighted by the inverse of each study participants' probability of being included into the sample.

Population inferences at the level of decision makers are more difficult to accomplish, given that the election outcomes may depend on the group composition, which in turn depended on individual group members' inclusion probabilities. To address this challenge, observations from individual decision makers were weighted by the simulated likelihood that they would have been elected if the experiment had been carried out with self-weighted sample of the population of each municipality. To simulate voting outcomes in a self-weighted population sample, weighted bootstrap samples were drawn from each group (using the group members' sampling weights) and the entire election process was simulated for each bootstrap iteration via their recorded vote choices in the first round and runoff elections. For comparability, the weights for randomly selected decision makers were obtained analogously, simulating random selection instead of elections. Thus, an individual decision maker's weight can be interpreted as the estimated proportion of decision makers represented by this individual, if the experiment had been carried out infinitely many times on self-weighted samples of the respective municipality's voting-age population.

## Research transparency

The experimental design, along with a detailed explanation of the research design choices and the trade-offs involved were documented in a pre-analysis plan. The pre-analysis plan was finalized and registered prior to accessing any data from the experiment. An anonymized version is available at <https://bit.ly/338xLUK>.

The pre-analysis plan organized the research questions hierarchically into primary outcomes and analyses related to the underlying causal mechanisms. The analysis plan also included simulations of the experimental data and the program code for a first pass of data analysis. The core analyses of this paper follow closely the pre-analysis plan, but are complemented with further tests to scrutinize the results. Some of the supplementary analyses and ancillary experiments that were also covered in the pre-analysis plan are beyond the scope of this paper and may be reported in different papers.