Supporting Information for

"Elections and Deceptions"

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SI1: Theoretical Framework

In this section, we present the main results of the theoretical framework. We assume that the utility of candidate i when she promises P_i in the *Political Campaign* stage, wins the electoral competition with an approval rate that is equal to $\frac{k}{n} \geq \frac{m}{n} = \frac{n+1}{2n}$,[1] and distributes S_i to voters in the *Distribution* stage is given by:

$$U_i\left(P_i, S_i, \frac{k}{n}, \beta_i\right) = E + I - S_i - \beta_i C_i\left(P_i, S_i, \frac{k}{n}\right), \tag{1}$$

where $E \geq 0$ is the ego rent and $\beta_i \geq 0$ is the sensitivity of candidate i to the costs of lying. P_i and S_i are restricted to be positive and lower than the monetary budget, $I \in \mathbb{R}_+$. The psychological costs of lying are expressed by

$$C_i\left(P_i, S_i, \frac{k}{n}\right) = \begin{cases} \frac{k}{n}\frac{1}{2}\frac{(P_i - S_i)^2}{P_i}, \text{ if } P_i > 0 \text{ and } S_i < P_i, \\ 0, \text{ otherwise.} \end{cases} \tag{2}$$

Notice that if $P_i = 0$, then the utility of candidate i strictly decreases with the distributed amount, irrespective of the approval rate, $\frac{k}{n}$, and the sensitivity parameter, β_i. If $P_i > 0$ and $S_i < P_i$, then it follows that:

1. $\frac{\partial C_i\left(P_i, S_i, \frac{k}{n}, \beta_i\right)}{\partial \frac{k}{n}} > 0$: the higher the approval rate of the winning candidate, $\frac{k}{n}$, the higher are the costs of lying;

2. $\frac{\partial C_i\left(P_i, S_i, \frac{k}{n}, \beta_i\right)}{\partial P_i} > 0$: the higher the promise of the winning candidate, P_i, the higher are the costs of lying;

3. $\frac{\partial C_i\left(P_i, S_i, \frac{k}{n}, \beta_i\right)}{\partial S_i} < 0$: the higher the amount distributed by the winning candidate to voters, S_i, the lower the costs of lying are;

Candidate i maximizes (1) with respect to the distributed amount S_i. In any interior solution of the maximization problem it must be that

$$1 = \beta_i \frac{\partial C_i\left(P_i, S_i, \frac{k}{n}\right)}{\partial S_i}. \tag{3}$$

[1] k indicates the number of votes for the winner and $m = \frac{n+1}{2}$ is the simple majority.

Intuitively, in equilibrium the winning candidate chooses the promise, P_i, and the distributed amount, S_i, such that the marginal cost of distributing positive amounts to voters is equal to the corresponding marginal benefit of reducing the costs of lying.

If $\beta_i = 0$ or $P_i = 0$,then candidate i distributes nothing in equilibrium $S_i = 0$. If $P_i > 0$ and $\beta_i > 0$, then the optimal distributed amount is

$$S_i\left(\frac{k}{n}, P_i, \beta_i\right) = \max\left\{P_i \frac{\beta_i \frac{k}{n} - 1}{\beta_i \frac{k}{n}}, 0\right\}. \tag{4}$$

Candidates can be of a two types, H and L. The two types of candidates differ in the magnitude of the sensitivity parameter, namely $\beta^H > \beta^L > 1$.[2] This assumption implies that both types distribute a positive amount if elected unanimously when they make strictly positive promises. Let ϕ and $(1 - \phi)$ be the probabilities that i is an $L - type$ and an $H - type$ candidate, respectively. Without loss of generality, let us assume $E = 0$. We focus on Perfect Bayesian equilibria, where voters do not play weakly dominated strategies. The following results define the four testable predictions presented in the experimental design. The first proposition states that in electoral competitions, lie-averse candidates use promises strategically to increase their approval rate.

Proposition 1 *In any equilibrium of the electoral game with political campaign, the winning candidate promises a positive amount in equilibrium.*

Proof. Suppose that there is an equilibrium in which both candidates promise nothing and, therefore, distribute nothing if elected. In this equilibrium, candidate i wins the elections with a probability that is equal to or less than $\frac{1}{2}$. If she deviates and promises $\varepsilon > 0$, then, regardless of her type, she distributes a positive amount when elected unanimously. Hence, voting for the candidate who promises zero is a weakly dominated strategy. All voters vote for candidate i, who wins the elections unanimously, $k = n$. Therefore, deviating is profitable for candidate i if and only if $\frac{1}{2}I < I - \varepsilon\frac{\beta_i - 1}{\beta_i} - \frac{1}{2\beta_i}\varepsilon$ which holds as long as $\varepsilon < I\frac{\beta_i}{2\beta_i - 1}$. Finally, suppose that there exists an equilibrium in

[2] We discuss the extension where some candidates are purely selfish later in the text.

which one candidate promises zero, her opponent promises a positive amount, and the former is elected. This equilibrium contradicts the assumption that voters do not play weakly dominated strategies. ■

By proposition 1, candidates make positive promises in the political campaign. By combining this result with equation (4), it follows that voters receive positive payoffs in equilibrium.

Corollary 2 *In any equilibrium of the game with a political campaign, the winning candidate partially fulfills her promises and distributes a positive amount.*

Of course, the elections are beneficial for voters if and only if candidates truly compete through promises in the political campaign. If either the political campaign stage is removed or the winner of the elections is randomly selected, then voters' equilibrium payoff is 0. This is formally stated in the next proposition.

Proposition 3 *If either the winning candidate is randomly appointed or the political campaign stage is removed from the electoral game, then candidates promise nothing and, in equilibrium, the winning candidate distributes nothing to voters.*

Proof. If the winning candidate is randomly appointed, then the promise made in the political campaign does not influence the probability of winning the elections and neither candidate promises anything. Similarly, if the political campaign stage is removed, $P_i = 0$ for both $i = A, B$. Therefore, by equation (4), the winning candidate distributes nothing to voters in either situation. ■

Corollary 4 *Voters are better off when candidates compete for appointment by making promises in the political campaign stage.*

Now, let us describe a standard pooling equilibrium of the electoral game in which voters do not play weakly dominated strategies. Regardless of their type, both candidates promise I. If candidate i is elected with k votes, she distributes $I\frac{\beta_i \frac{k}{n}-1}{\beta_i \frac{k}{n}}$, with $\beta_i = \beta^H$ if i is an $H-type$ and $\beta_i = \beta^L$ if i is an $L-type$. Each voter casts his vote for the candidate who makes the largest promise, while they vote randomly if both candidates make the same promise. Each voter assigns a probability of ϕ to i being an $H-type$ candidate when she promises I, while he assigns a probability of 1 to i being an $L-type$ candidate when she makes any other promise. In equilibrium, the expected payoff of candidate i is $\frac{1}{2}\frac{1}{n-k+1}\sum_{k=m}^{n} I\frac{1}{\beta_i \frac{k}{n}} > 0$.

If she deviates, all voters vote for the other candidate and her payoff is null. When both candidates promise the same amount, the deviation of a voter is irrelevant. If candidate $-i$ promises less than I, then deviating and voting for $-i$ reduces voters' payoffs. Indeed, candidate i that promises I wins with $n-1$ votes and distributes $\max\left\{I\frac{\beta_i\frac{n-1}{n}-1}{\beta_i\frac{n-1}{n}}, 0\right\} < I\frac{\beta_i-1}{\beta_i}$. In the pooling equilibrium, both candidates make the same promise. However, candidates in our experiment make different promises and voters vote with higher probability for the candidate who makes the largest promise. These empirical findings are consistent with our model if we introduce a natural assumption on voters' behavior: If both candidates make the same promise, then each voter casts his vote randomly. This assumption rules out unreasonable separating equilibria such as a situation in which, regardless of their type, candidate A promises $0 < P_A < I$, candidate B promises $P_B = I$ and all voters vote for candidate A although this is detrimental for their expected payoff. We now turn our attention to separating equilibria in which candidates make different promises.

Proposition 5 *In any symmetric separating equilibrium, each voter votes for the candidate who makes the largest promise with a probability that is greater than* $\frac{1}{2}$.

Proof. In a symmetric separating equilibrium, an $H-type$ candidate promises P^H and an $L-type$ candidate promises P^L, with $P^H \neq P^L$. By contradiction, suppose that voters vote for the candidate who makes the lowest promise with probability $\pi > \frac{1}{2}$. Without loss of generality, suppose $P^H > P^L$. If candidate i is an $H-type$, she makes the largest promise P^H and her expected payoff is given by:

$$(1-\phi)\sum_{k=m}^{n}\begin{pmatrix} n \\ k \end{pmatrix}(1-\pi)^n\left[I-P^H+\frac{1}{2\beta^{H}\frac{k}{n}}P^H\right]+\phi\sum_{k=m}^{n}\begin{pmatrix} n \\ k \end{pmatrix}\frac{1}{2^n}\left[I-P^H+\frac{1}{2\beta^{H}\frac{k}{n}}P^H\right]. \tag{5}$$

If candidate i deviates and promises P^L, she gets:

$$(1-\phi)\sum_{k=m}^{n}\begin{pmatrix} n \\ k \end{pmatrix}\frac{1}{2^n}\left[I-P^L+\frac{1}{2\beta^{L}\frac{k}{n}}P^L\right]+\phi\sum_{k=m}^{n}\begin{pmatrix} n \\ k \end{pmatrix}\pi^n\left[I-P^L+\frac{1}{2\beta^{L}\frac{k}{n}}P^L\right] \tag{6}$$

Since $\pi > \frac{1}{2}$ and $P^L < P^H$, the deviation is profitable. ■

It is easy to show that separating equilibria exist for a non empty set of parameters. For instance, when β^H is large enough, β^L is small enough and ϕ is large enough, there exists a separating equilibrium in which: (i) $L-type$ candidates promise I and distribute $I\frac{\beta^L\frac{k}{n}-1}{\beta^L\frac{k}{n}}$ when they win with k votes; (ii) $H-type$ candidates promise $P^H < I\frac{\beta^H(\beta^L-1)}{\beta^L(\beta^H-1)}$ and distribute less than $L-type$ candidates for any approval rate; (iii) voters' beliefs are such that they assign a probability of 1 to a candidate being an $L-type$ when she promises strictly more than P^H, and a probability of 1 to a candidate being an $H-type$ when she promises less than P^H; (iv) voters vote for the candidate they expect (conditional on their beliefs) to be the most benevolent if elected. If voters expect the two candidates to distribute the same amount, they vote for the candidate who makes the larger promise. Finally, if the two candidates make the same promise, voters cast their votes randomly.

The previous equilibrium has a simple intuition. An $L-type$ candidate wins against an $H-type$, while a candidate wins with a probability of 1/2 against an opponent of the same type. If β^H is large enough, for an $H-type$ candidate, competing against an $L-type$ candidate is *"too costly"*: she promises the entire budget, I, and, if elected, distributes a large amount to voters. Therefore an $H-type$ candidate prefers to reduce her promise and win the elections with lower probability. Namely, she wins the elections with a probability of 1/2 when she competes against an opponent of the same type (a situation that occurs with a probability of $1-\phi$). In contrast, if ϕ is large enough and β^L is small enough, an $L-type$ candidate competing against an opponent of the same type prefers to promise the entire budget, I, and win the elections with a probability of 1/2.

We conclude with two remarks. First, some candidates in the Election treatment distribute more than what they promised. Moreover, some candidates in the other two treatments, Random and NoCampaign, distribute positive amounts (which are nevertheless significantly lower than the distributed amounts in Election). Also, the amounts candidates distribute are not correlated with the approval rate in NoCampaign and weakly correlated with promises in Random. Our model can be easily extended to account for these empirical results by assuming that candidates (also) exhibit preferences for egalitarianism. For instance, consider the following extension of the utility function of candidate i:

$$U_i(P_i, S_i, \frac{k}{n}, \beta_i, \alpha_i) = I + E - S_i - \beta_i C_i \left(P_i, S_i, \frac{k}{n}\right) - \alpha_i \max\left[0, \frac{1}{2}(I\frac{n}{n+1} - S_i)^2\right], \quad (7)$$

where $\alpha_i \geq 0$ is the sensitivity of candidate i to egalitarianism (with respect to the distribution of the budget). By (7), when either $\beta_i = 0$, or $P_i = 0$, or under random appointment, the winning candidate distributes $S_i = \max\left\{I\frac{n}{n+1} - \frac{1}{\alpha_i}, 0\right\}$ for egalitarian concerns.

In this model, that combines psychological costs of lying with a preference for egalitarianism, the equilibrium predictions and corresponding lines of reasoning would be similar to those discussed in the paper, with the exception that equilibrium promises and distributed amounts would be higher. The same would hold for other forms of other-regarding preferences, as long as the pro-social component in the utility function reduces the opportunity cost of benevolence. For example, if some candidates are altruistic and receive positive utility from distributing money to voters, no separating equilibria exist and the unique pooling equilibrium which satisfies the intuitive criterion prescribes that both candidates promise the entire budget.

Second, we find in our experiment that excessively high promises generate distrust. This evidence can be rationalized within our theoretical framework. Our model admits a multiplicity of pooling equilibria in which candidates promise less than the entire budget I. Starting from one of these equilibria, if one candidate deviates and promises more than the equilibrium level, voters assign a probability of one that the deviation is played by an $L - type$ candidate who will distribute a lower amount if winning the election. Alternatively, our model can be extended to include a third type of (selfish) candidate, denoted $O-type$, such that $\beta^O = 0$. Selfish candidates always distribute zero if they win the elections and their promises are mere cheap talk. Consider a model with three types: O, H and L. As follows, we provide the intuition of how introducing the $O - type$ candidates can change the previous results. A separating equilibrium cannot exist because voters never vote for a selfish candidate. If the probability that a candidate is an $O-type$ is sufficiently high, then there exist pooling equilibria such that, regardless of their type, candidates promise a positive amount $\hat{P} \leq I$ and voters assign a probability of 1 to a candidate being selfish if she promises more than $\hat{P}$. On the other hand, if the probability that a candidate is an $O - type$ is sufficiently low, there also exist semi-pooling equilibria in which $L - type$ and $O - type$ candidates promise $P^{L,O} \leq I$ and $H - type$ candidates promise P^H, with $P^H < P^{L,O}$. Voters vote for the candidate who promises $P^{L,O}$ if the other candidate promises P^H, and voters assign a probability of 1 to a candidate being selfish when she promises more than $P^{L,O}$. Hence, making an excessively large promise generates distrust and reduces the probability of winning the elections.[3]

[3]Indeed, it is easy to show that assigning a probability of 1 to a candidate being selfish when she promises more than $\hat{P}$ ($P^{L,O}$) in the pooling (semi-pooling) equilibria is the unique profile of voters' beliefs that satisfies standard refinement criteria for Bayesian equilibria, such as the D1 criterion.

SI2: Analysis of Text Messages

We ran an additional classroom experiment to classify the text messages candidates sent in treatments Election and Random, following Houser and Xiao (2011). We recruited 59 students uninvolved in the main experiments. After providing the verbal instructions for the original experiment, we gave students a list containing the candidates' messages and asked them to classify each message as a "statement of intent or promise" or "empty talk". At the end of the classroom experiment, 10 participants were randomly selected and paid according to the following: they earned two euros for each message they classified in the same way as the majority of the other students.

In columns (3)-(5) of Table 1 we extend our regression model from the main text by including the dummy variable "Text promise" indicating whether the text message was classified as a promise. Column 3 shows that text messages that included a promise significantly increased voters expectations. Moreover, the significant positive interaction effect "Promise*Text promise" suggest that the relationship between the promised amount and expectation can be reinforced with additional verbal statements of intent. Overall, the relationship between the promised amount and expectations (see column 1 and 2) is robust if we control for text messages.

We also analyzed how text messages affected voting behavior by using the regression model from the main text and including the dummy "$\Delta_{A,B}$Text promise" which takes a value of one if candidate A but not B made an additional verbal promise (see Table 2). The results from column 3 and 4 show that verbal promises increase electoral success and they amplify the effect of the quantitative promises. Our main results reported in column (1) and (2) remain unchanged if we control for text messages.

In contrast to the behavior and expectations of voters, verbal promises did not significantly affect the benevolence of the candidates. The coefficient for "Text promise" is statistically insignificant (see column 3 in Table 3). Moreover, as depicted in column (4) the interaction between verbal and quantitative promises is insignificant.

Table 1: Promises and Expectations (incl. text messages)

	(1)	(2)	(3)	(4)	(5)
Promise	0.426***	1.174***	0.449***	0.267**	0.716***
	(0.101)	(0.127)	(0.075)	(0.095)	(0.200)
$(\text{Promise})^2$		-0.002***			-0.001*
		(0.000)			(0.000)
Text promise			45.224**	-74.748**	-55.293**
			(18.772)	(24.329)	(20.881)
Promise*Text promise				0.368***	0.290***
				(0.072)	(0.081)
Constant	89.125**	30.004***	56.720**	118.337***	76.913***
	(31.477)	(6.258)	(24.739)	(32.700)	(17.201)
R^2	0.112	0.138	0.137	0.157	0.164
Obs.	100	100	100	100	100
Sample	Election	Election	Election	Election	Election

Notes: This table shows OLS coefficient estimates (standard errors in parentheses are corrected for clustering on the level of each electorate). The dependent variable is the number of tokens voter n believed that candidate i would distribute. "Promise", resp. "$(\text{Promise})^2$" is the (squared) number of tokens the candidate promised. "Text promise" is a dummy variable indicating whether the candidates text message is classified as a promise. The results remain qualitatively the same if we use a Tobit model as an alternative. Significance levels are denoted as follows: Significance levels are denoted as follows: * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

Table 2: Promises and Voting (incl. text messages)

	(1)	(2)	(3)	(4)
$\Delta_{A,B}$Promise	0.146	0.321***	0.326***	0.322***
	(0.116)	(0.088)	(0.074)	(0.076)
$(\Delta_{A,B}\text{Promise})^2$		-0.194***	-0.154***	-0.151***
		(0.057)	(0.037)	(0.038)
$\Delta_{A,B}$Text promise			0.369***	0.424***
			(0.069)	(0.058)
$\Delta_{A,B}$Promise*$\Delta_{A,B}$Text promise				0.440***
				(0.085)
Constant	0.579***	0.684***	0.577***	0.576***
	(0.096)	(0.082)	(0.057)	(0.058)
R^2	0.065	0.180	0.262	0.265
Obs.	50	50	50	50
Sample	Election	Election	Election	Election

Notes: This table shows OLS coefficient estimates (standard errors in parentheses are corrected for clustering on the level of each electorate). The dependent variable is a dummy variable indicating whether voter casted his vote for candidate A. "$\Delta_{A,B}$Promise" respectively "$(\Delta_{A,B}\text{Promise})^2$" is the (squared) difference between the number of tokens candidates A and B promise (in hundreds of tokens). "$\Delta_{A,B}$Text promise" is a dummy variable indicating whether candidate A's, but not B's, text message classifies as a promise. The results remain qualitatively the same if we use a Probit model as an alternative. Significance levels are denoted as follows: * p<0.1, ** p<0.05, *** p<0.01.

Table 3: Democratic Institutions and Benevolence (incl. text messages)

	(1)	(2)	(3)	(4)
Election	121.217***	57.169	45.860	47.089
	(39.392)	(49.205)	(51.377)	(52.833)
Promise		0.401***	0.388**	0.364**
		(0.139)	(0.143)	(0.171)
Text promise			44.599	24.380
			(41.016)	(35.959)
Promise*Text promise				0.075
				(0.201)
Constant	75.500***	9.448	0.433	5.055
	(26.005)	(14.178)	(15.968)	(16.784)
R^2	0.199	0.351	0.374	0.376
Obs.	40	40	40	40
Sample	Election & Random	Election & Random	Election & Random	Election & Random

Notes: This table shows OLS coefficient estimates (with robust standard errors in parentheses). The dependent variable is the number of tokens (averaged over all three approval rates) that candidates distributed. "Election" is a dummy indicating treatment Election. Random is considered as the reference category. "Promise" is the number of tokens the candidate promised. "Text promise" is a dummy variable indicating whether the candidates text message is classified as a promise. The results remain qualitatively the same if we use a Tobit model as an alternative. Significance levels are denoted as follows: * p<0.1, ** p<0.05, *** p<0.01.

SI3: Analysis of Second-Order Beliefs

Following Charness and Dufwenberg (2006), we elicited candidates' second-order beliefs, i.e. their beliefs about what the electorate expects them to distribute. Charness and Dufwenberg analyzed behavior in an experimental trust game (see Berg, Dickhaut and McCabe 1995) with pre-play communication and found a positive correlation between the trustee's second-order beliefs and his or her actual trustworthiness. This positive correlation is consistent with their notion of guilt aversion, where people suffer from psychological costs to the extent that they fail to meet other people's expectations.

We find that the candidates' approval rate and their promises correlate positively with their second-order beliefs (see column 1 of Table 4). Moreover the candidates' second-order beliefs correlated significantly with their actual behavior (see column 2). These results are broadly consistent with the notion of guilt aversion proposed by Charness and Dufwenberg (2006) and Battigalli and Dufwenberg (2007). As noted by Vanberg (2008) and Ellingsen, Johannesson and Torsvik (2010), however, a positive correlation between second-order beliefs and behavior could be explained equally well by a false consensus effect: candidates who prefer to distribute a lot to their electorate believe their electorate expects them to do so. We report these results mainly for the sake of completeness, but acknowledge that their interpretation is debatable.

Table 4: Second Order Beliefs and Benevolence

	(1) 2^{nd} Order Beliefs	(2) Distributed Tokens
Approval (in %)	2.250***	0.891*
	(0.458)	(0.495)
Promise	0.662***	
	(0.127)	
2^{nd} Order Beliefs		0.666***
		(0.163)
Constant	-131.929***	-49.730
	(45.520)	(36.228)
Obs.	60	60
R^2	0.470	0.364

Notes: This table shows OLS coefficient estimates (standard errors are given in parentheses and corrected for clustering on the level of each candidate) for the Election sample. In column (1), the dependent variable represents the candidates' second-order beliefs (i.e. how many tokens they believe voters expect them to distribute) for each approval rate. In column (2), the dependent variable is the number of tokens candidates distributed to the electorate for each approval rate. The variable "Approval" indicates the approval rate. "Promise" is the number of tokens the candidate promised and "2^{nd} Order Beliefs" are the candidates' second-order beliefs. The results remain qualitatively the same if we use a Tobit model as an alternative. Significance levels are denoted as follows: * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

SI4: Additional Graphs

Figure 1: Quadratic Fits: Promises and Voter's Expectations/Behavior

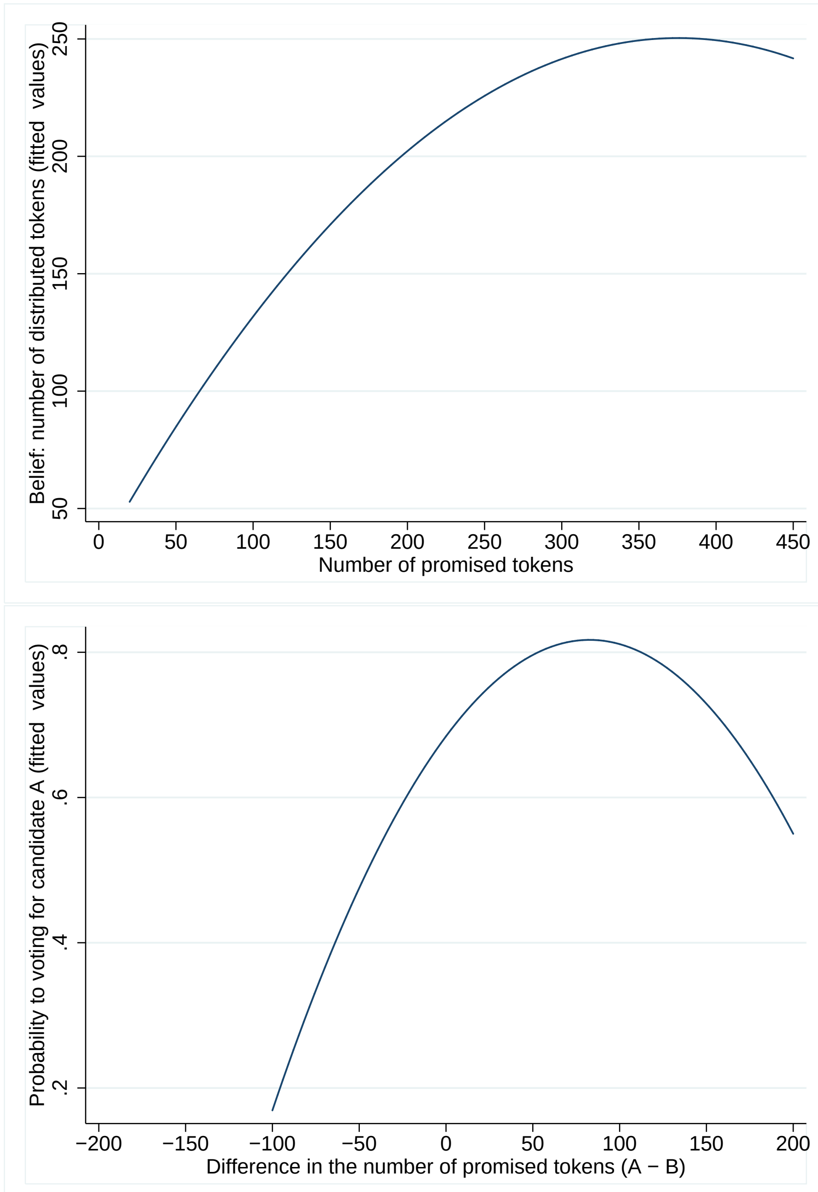
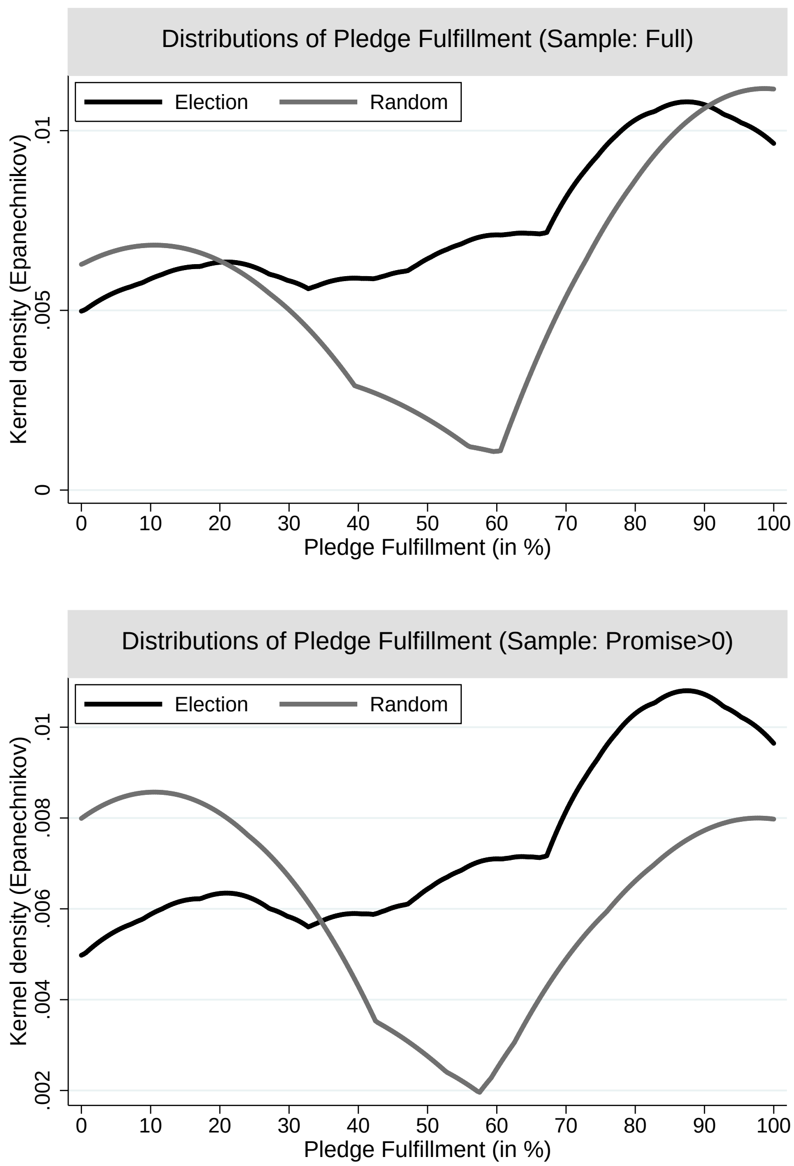


Figure 2: Heterogeneity in Pledge Fulfillment



SI5: Data and Messages

Table 5: Experimental Data

promised amount	votes received	distributed amount 3/5	4/5	5/5	voters' average belief	candidate's belief 3/5	4/5	5/5
Treatment Election								
350	5	350	350	350	334	280	280	350
250	0	50	100	200	200	100	180	250
400	3	0	0	5	237	10	25	50
360	2	50	100	150	262	240	300	360
400	3	300	325	350	280	330	350	370
300	2	300	325	375	220	310	330	368
60	3	20	30	50	105	30	50	70
20	2	100	101	102	48	20	25	27
375	2	355	365	375	175	300	350	375
450	3	100	200	330	243	220	330	430
375	4	225	300	375	245	225	300	375
400	1	200	250	300	124	200	250	300
450	3	50	150	450	261	200	250	400
250	2	25	150	200	220	50	200	350
300	5	0	0	0	262	300	300	300
300	0	100	125	150	252	250	300	350
300	0	320	380	420	230	290	300	320
400	5	250	300	375	281	400	400	400
375	3	0	0	0	288	375	375	375
375	2	225	300	375	281	250	320	360

Table 6: Experimental Data (continued)

promised amount	votes received	distributed amount 3/5	4/5	5/5	voters' average belief	candidate's belief 3/5	4/5	5/5
Treatment Random								
420	0	400	400	400	84	70	70	70
300	5	100	200	300	60	200	300	400
350	4	0	0	0	83	0	0	0
0	1	0	0	0	0	0	0	0
50	3	50	150	200	23	300	300	450
225	2	0	0	0	170	50	50	50
50	1	10	20	50	80	0	10	10
100	4	100	100	100	110	100	100	100
100	0	100	100	100	46	0	0	0
250	5	50	50	50	112	5	5	5
0	2	0	0	0	0	0	0	0
350	3	350	350	350	140	350	350	350
50	4	0	0	0	8	0	0	0
300	1	50	50	50	24	0	10	10
400	3	0	0	0	318	5	5	5
0	2	0	0	0	0	0	0	0
50	5	50	50	50	22	10	20	30
0	0	0	0	0	82	50	50	50
300	3	0	50	100	99	200	200	200
0	2	0	0	0	0	0	0	0

Table 7: Experimental Data (continued)

promised amount	votes received	distributed amount 3/5	4/5	5/5	voters' average belief	candidate's belief 3/5	4/5	5/5
Treatment NoCampaign								
	3	0	0	0	60	0	0	0
	2	0	5	10	60	2	5	15
	2	250	250	250	31	50	50	50
	3	0	0	0	32	0	0	0
	1	50	100	150	40	50	50	50
	4	200	150	100	50	300	250	100
	2	50	50	50	55	50	50	50
	3	50	50	50	55	10	15	20
	4	0	0	0	20	100	100	100
	1	0	0	0	30	0	0	0
	3	0	0	0	152	1	1	1
	2	30	40	50	78	10	20	30
	1	50	50	50	36	0	0	0
	4	0	20	40	31	0	20	29
	3	60	80	100	51	300	350	400
	2	0	0	0	40	0	0	0
	1	0	0	0	90	0	0	0
	4	0	0	0	100	0	0	0
	0	0	0	0	23	0	0	0
	5	10	20	30	29	20	30	50

Table 8: Classification of Messages: Promise (P) or Empty Talk (E)

	Message	*Category*
	Election Treatment	
1	The more votes I get, the more I will distribute, that is for sure! And it won't be a small amount!	P (39)
2	70 for each of you and 100 for me – that is (almost ;-)) fair. It is only a game, but I will share honestly anyway. Out of principle, and so that I can sleep well tonight ;-)	P (53)
3	Hello dear voters!	E (0)
4	[Blank]	E
5	Hello, I shall distribute equally among all of us, I suppose that is fair, so you get 80 Tokens each and I get 50+30 for winning the election	P (51)
6	Hi :). I will pay 300 if I receive 3 votes, 325 for 4 votes and 375 for 5 votes. I want to do things fairly, but there should also be a small incentive to vote for me ;-).	P (57)
7	Hello, I hope you will vote for me, so that afterwards we can buy one (or several) beers with the money we earn. If you don't: have a nice day :)	E (24)
8	Each of you will receive at least 20 Tokens from me! You can count on that!	P (56)
9	All for one and one for all! Vote for me and win with me!	E (1)
10	I think the numbers speak for themselves! I would be happy about each vote :)	E (2)
11	If I win, I will pay each citizen the same amount of Tokens, because I think that is fair.	P (42)
12	You want to get something done? Then vote for me!	E (10)
13	Vote for me, because I will give you the most money! By the way, I am supporting world peace ;-)	E (24)
14	If I were to distribute more, I would have no money left to fulfill your wishes;)	E (8)
15	If this helps to get elected, I will give you this amount in any case; if the other candidate offers a relatively unrealistic amount (e.g. 450), then I would be skeptical – this is also useful for the beliefs.	P (53)
16	Ban the fee on dog license! Freedom for the whales! My opponent is lying! Tuition fees are antisocial! Abolish deposits on cans! My opponent is lying!	E (0)
17	Hello all ;) you are here to earn money, right ????? I am here to help you do so... ;) so VOTE FOR ME AND I WILL SHARE MY MONEY FAIRLY WITH YOU :)))))) You won't regret it... Best wishes:)	P (48)
18	I will distribute 400 Tokens, which is fair, because then each citizen gets a 400/5 = 80T payoff	P (58)

Table 9: Classification of Messages: Promise (P) or Empty Talk (E) (continued)

	Message	*Category*
19	Dear citizens! Vote for me and I will make sure that the amount of 450 Tokens is shared equally amongst you, i.e. 75 Tokens for each of you and for me too. That means an extra 3 Euro for each of you.	P (56)
20	If I get elected, I will divide the 450 Tokens fairly by 6, so that each citizen receives the same amount of Tokens as I do. So I will distribute 375 Tokens, every citizen receives 75 Tokens, and so do I!	P (59)
	Treatment Random	
1	I keep my pre-election promises.	E (21)
2	[Blank]	E
3	[Blank]	E
4	Sorry, but since the electoral outcome does not depend on the citizens, I have no reason to offer you more - just enter that you expect me to distribute 0 tokens whatever my approval rate, so that you earn 10 tokens for correct beliefs. ;-) Have a wonderful voting stage.	P (59)
5	[Blank]	E
6	Dear voters.	E (0)
7	[Blank]	E
8	I shall give you 100 tokens.	P (51)
9	[Blank]	E
10	[Blank]	E
11	3:0 4:0 5:0 that is a lottery, the other candidate is a loser, so I take a higher risk.	E (1)
12	350 tokens will be distributed to the citizens - no ifs, and or buts- Wealth to the people.	P (55)
13	[Blank]	E
14	[Blank]	E
15	For the sake of fairness, I will split the amount by 6.	P (52)
16	[Blank]	E
17	[Blank]	E
18	Yes, we can!	E (0)
19	If I am the winner, I will share the tokens fairly	P (53)
20	[Blank]	E

SI6: Experimental Design - Treatment Election (direct)

By asking for a conditional distribution choice for each approval rate, we might have artificially induced candidates to condition their decisions on the approval rates. In order to rule out the possibility that our results are an artifact of the strategy method, we applied the direct response method in the additional control treatment "Election (direct)". In this treatment the winning candidate decided only after having learned the electoral outcome. The winning candidate thus made only one unconditional choice and the losing candidate did not make any decision. In order to increase the number of observations we reduced the number of voters per constituency to three, and repeated the game for three periods. The participants kept their roles for all three periods. We excluded reputational concerns by re-matching the candidates with a new set of voters and a new contestant in every period. At the end of the experiment one period was randomly chosen for actual payment. This was common knowledge for the participants. We conducted 11 sessions, each consisting of four constituencies. In total 220 subjects participated in this additional control treatment. We implemented two additional design changes with respect to the original Election treatment: First, we did not incentivize the elicitation of first and second order beliefs anymore and second we adjusted the exchange rate to the current payment norms at the BonnEconLab (i.e. €5, instead of €4 per 100 tokens). All other aspects of the design remained the same.

SI7: Instructions (Treatment Election, translated from German)

Welcome to this experiment! Please read the following instructions carefully. At the end of the instructions, you will find control questions. The experiment starts after you have answered all the questions correctly. Today's study is completely anonymous, i.e. you will not find out who you are interacting with. How much you earn during the experiment depends on your decisions as well as on the decisions of the other participants. At the end, earned tokens will be paid to you in cash at an exchange rate of 1 token = 4 Euro cents. Please wait at your terminal until we call you to pick up your payment. Hand in all the documents we gave you when you pick up your payment. You start the experiment with an initial endowment of 100 tokens (4 Euro). This sum might increase as you earn additional tokens in the course of the experiment. Please note that you are not allowed to talk to any of the other participants from now on and throughout the experiment. If you do, we will abort the experiment and you will not receive any payments. If you have any questions, please call us, and we will come to your booth to answer your question in private.

In this experiment, you are assigned either the role of a candidate or of a citizen. Roles are randomly assigned at the beginning of the experiment and are unchanged throughout the experiment. At the beginning you are randomly allocated to a group of 7 persons. Each group consists of two candidates (candidate A and candidate B) and five citizens. The group composition stays the same throughout the experiment. Candidates have the opportunity to send campaign messages to citizens.

Afterwards, each citizen casts a vote for one of the two candidates. The candidate who receives the majority of votes (the winner) wins the election, earns 30 tokens, and is granted a budget of 450 tokens. The winner can distribute any amount from the budget to the citizens. The distributed amount is shared equally among all citizens. The winner keeps the remainder of the budget that is not distributed. The experiment consists of one single round. The round follows 5 stages:

Stage 1: *Messages from candidates A and B.* Both candidates promise how many tokens (from 0 to 450) from their budget they intend to distribute to the citizens if they win the election. Both candidates also have the opportunity to send a text message (up to 300 characters) to the citizens. A candidate's message must not contain information that might identify him (e.g., name, terminal id, etc.). If any of these rules are disregarded, we will exclude the candidate from the experiment. Note that neither the compulsory nor the voluntary messages are binding.

Stage 2: *Electing a candidate.* Each of the five citizens cast their vote for one of the two candidates. The outcome of the election is only announced in stage 5.

Stage 3: *Candidates' decisions.* Both candidates bindingly decide how many tokens they will distribute from their budget equally to the citizens, conditional on winning the election with 3, 4, or 5 out of 5 votes. The candidate retains the remainder of the budget that is not distributed. For the final payoff, only the decision corresponding to the actual number of votes is implemented.

Example: If the candidate receives 3 out of 5 votes, only the amount from the decision for 3 out of 5 votes is distributed to the citizens. The decisions related to the other potential election results (4 out of 5 or 5 out of 5 votes) have no influence on the final payoff in those cases.

Stage 4: *Estimates.* a) Citizens' estimates: Each citizen estimates the total number of tokens that each candidate will distribute to the citizens after winning the election. For each estimate coinciding with the tokens actually distributed, a citizen earns 10 additional tokens. For every token that the estimate and the actual number of tokens distributed differ, a citizen receives one fewer token. If the difference is larger than 10 tokens, a citizen gets nothing for the estimate. b) Candidates' predictions of the citizens' estimates: Each candidate predicts the average number of tokens that the citizens estimated in stage 4a he would distribute. The candidate predicts the citizens' average estimate in the case of winning the election with 3 out of 5, 4 out of 5, or 5 out of 5 votes. As in stage 3, the only estimate relevant for payment purposes is that coinciding with the actual number of votes obtained. If the relevant prediction coincides with the citizens' actual average estimate, a candidate earns 10 additional tokens. For each token the candidate's prediction and the citizens' actual average estimate differ, the candidate gets one fewer token. If the difference exceeds 10 tokens, the candidate gets nothing for the prediction.

Stage 5: *End of the experiment.* The outcome of the election in stage 2 is revealed. Depending on how votes were distributed (3 out of 5, 4 out of 5, or 5 out of 5 votes), and on the candidates' decisions in stage 3, the corresponding payment is calculated for each participant.

SI8: Summary Statistics

Table 10: Subjects' Background Statistics

Variable	Mean	Std. Dev.
Age	24.819	6.509
Male	0.543	0.499
Natural sciences	0.271	0.445
Economics	0.237	0.426
Law and politics	0.217	0.413
Other humanities	0.275	0.448

Notes: This table shows the summary statistics for the subjects age, gender and field of study. The total sample size is 210. Three subjects did not provide their field of study.

Table 11: Subjects' Background Statistics: Direct Response Treatment

Variable	Mean	Std. Dev.
Age	23.573	4.125
Male	0.368	0.483
Natural sciences	0.395	0.490
Economics	0.191	0.394
Law and politics	0.145	0.353
Other humanities	0.268	0.444

Notes: This table shows the summary statistics for the subjects' (in the direct response replication experiment) age, gender and field of study. The total sample size is 220.

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