Supplementary Information for "Tutelary Power and Autocratic Legitimacy: Experimental Evidence from Kazakhstan's Tutelage"*

Masaaki Higashijima† Yuki Shiraito‡

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†Associate Professor, Institute of Social Science, the University of Tokyo. Hongo 7-3-1, Bunkyo-ku, Tokyo, Japan 113-8654. Phone: (+81) 03-5841-4952 Email: higashi@iss.u-tokyo.ac.jp, URL: https://masaakihigashijima.com/.

‡Assistant Professor, Department of Political Science, University of Michigan. Center for Political Studies, 4259 Institute for Social Research, 426 Thompson Street, Ann Arbor, MI 48104-2321, USA. Phone: 734-615-5165, Email: shiraito@umich.edu, URL: shiraito.github.io.

A First-time Runners in Authoritarian Elections

In the introduction of the main paper ("Tutelage and Mass Support in Electoral Autocracies"), we argue that new leaders of electoral authoritarian regimes face a problem of getting mass support. This section provides some empirical evidence for this claim. We show that first-time runners in authoritarian elections tend to receive lower vote shares than incumbents. This empirical pattern is robust to multiple study designs and holds even under long-lasting authoritarian regimes.

We merge multiple data sets to analyze vote shares in authoritarian elections. To distinguish autocracies from democracies, we rely on Boix, Miller, and Rosato (2013). Among authoritarian countries, we identify electoral autocracies by using Skaaning, Gerring, and Bartusevičius (2015)'s Lexical Index of Democracy, which records whether a country holds multi-party elections. In the electoral autocracy sample, "new presidents" refer to those who first participate in a presidential election. By contrast, "incumbent presidents" mean presidents who have consecutively participated in (and won) presidential elections more than twice in electoral authoritarian regimes. These two types of presidents are identified by using Goemans, Gleditsch, and Chiozza (2009)'s *Archigos* (version 4.1), Nyrup and Bramwell (2020)'s *WhoGov Dataset* (version 2), and other online information. Note that the distinction between these two types does not perfectly correspond to the number of elections held in an electoral autocracy: New presidents may be born in the midst of an electoral authoritarian regime, while incumbent presidents may hold the first multi-party elections in a new electoral autocracy after winning multiple democratic elections.

The left panel of Figure A.1 shows the average vote shares of new presidents and incumbent presidents in authoritarian elections. In this analysis, we simply pool all elections in electoral authoritarian regimes in our data and compare the average vote shares of the two types of presidents. It shows that the average vote share of new presidents is 61.31% while that of incumbent presidents is 73.35%. In other words, the vote shares of newly elected authoritarian presidents are on average 12.04 percentage points lower than incumbent presidents ("New − Incumbent" shown in the right of this panel). Although new presidents' vote shares are still sufficient to win elections, the difference between the two types of presidents is statistically significant ($p < .001$). As authoritarian leaders tend to win elections by a large margin, this difference is not trivial.

While the difference is large and clearly statistically significant, the pooled analysis ignores country-specific factors that may affect the vote shares. The difference may be driven by the fact that elections faced by new presidents tend to be the first election under a new authoritarian regime while those faced by incumbent presidents tend to be the second or

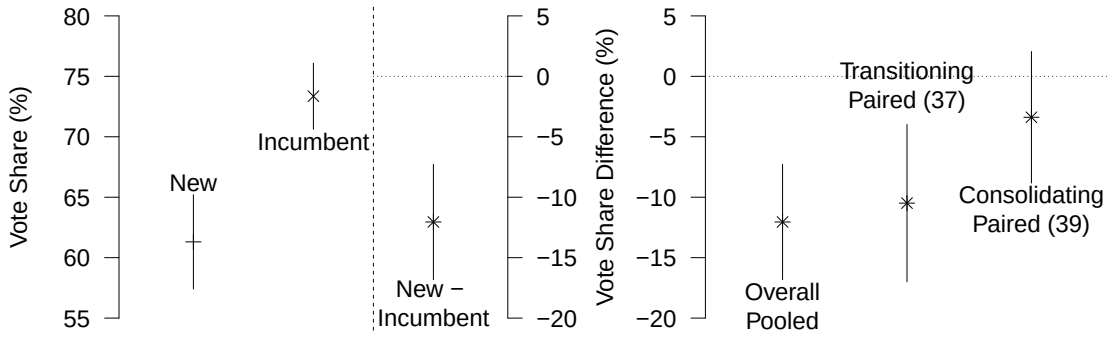

Figure A.1: Vote Shares and Difference between Incumbent and New Presidents in Authoritarian Elections.

later election under a continuing regime. Also, the estimated difference may be spurious if authoritarian leaders in some countries tend to receive higher vote shares and be reelected many more times than those in other countries. This is particularly concerning, given that incumbent presidents are more likely to be from long-lasting authoritarian regimes. Since we did not differentiate new or lasting authoritarian regimes in this analysis, we cannot rule out these possibilities.

To address this issue, we conduct "paired" analysis and present its results in the right panel of Figure A.1. In this analysis, we focus on the pairs of authoritarian elections where (1) the same country held two consecutive authoritarian elections and (2) the first election was won by an incumbent president while the second election was won by a new president. There are 37 such pairs in our data. We then take the average difference between the vote shares of the new and incumbent presidents within each pair. This within-country study design allows us to control for country-specific factors that may affect the vote shares. The average difference, shown as "Transitioning Paired", is 10.49%, which is close to the difference in the pooled analysis (the one in the left panel, also shown as "Overall Pooled" in the right panel for the ease of comparison). That is, within the same country under a continuing electoral authoritarian regime, the vote share of a president facing the first election is 10.49 percentage points lower than their own predecessor on average. This result implies that the result of the pooled analysis are not driven by the initial elections of regimes or country-specific factors, since we use consecutive elections within the same country as a unit of analysis.

For a placebo analysis to establish the robustness of this result, we also conduct the same analysis using the pairs of consecutive authoritarian elections, but we use the pairs where the first election was won by a new president while the second election was won by the same president. Our data set contains 39 pairs of this type. As "Consolidating Paired" in the right panel of Figure A.1 shows, authoritarian presidents facing the second election

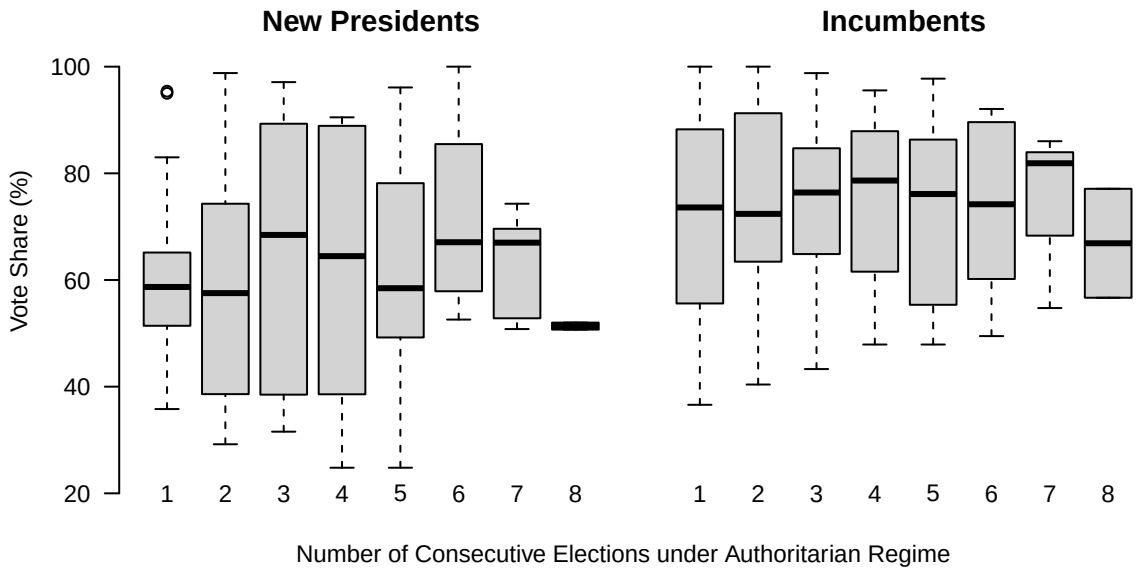

Figure A.2: Box-and-whisker Plots of Vote Shares by the Number of Consecutive Authoritarian Elections.

gains vote shares that are on average 3.39 percentage points higher than their own first election on average (the difference is taken as "New − Incumbent" to be consistent with the other estimates), but this difference is not statistically significant. This result suggests that new presidents may gradually increase their mass support as they stay in power, but the difference is not large enough to be statistically significant. Also, the decrease of the vote share in the previous analysis is not due to all elections faced by succeeding presidents, but due to their first elections only.

The previous analyses show the empirical pattern that authoritarian presidents tend to receive lower vote shares in their first elections than in their predecessors' elections and their own future elections, but it does not tell us whether this pattern holds under long-lasting authoritarian regimes. Figure A.2 answers this question. It shows the box-and-whisker plots of the presidential vote shares by the number of consecutive elections within each authoritarian regime. The box-and-whisker plots show the median (thick bar), the interquartile range (shaded square), and the range of the data (whiskers). There are few authoritarian regimes that experienced more than 8 consecutive elections, so we show from the first to the eighth elections.

Figure A.2 shows that vote shares are consistently lower for new presidents than for incumbent presidents. However long an authoritarian regime lasts, the median vote share is always lower for new presidents than incumbent presidents. Moreover, new presidents do not get higher vote shares even if they run for elections after their regime has held multiple elections. These results suggest that new presidents in electoral authoritarian regimes

consistently face the problem of getting mass support, even under long-lasting authoritarian regimes.

In sum, authoritarian leaders facing elections for the first time tend to have the problem of getting mass support. They get lower vote shares compared to both incumbent authoritarian presidents in general and their immediate predecessors in particular. This empirical pattern is consistently observed over the life of authoritarian regimes. These analyses support our premise that new leaders of electoral authoritarian regimes have lower support when they succeed power and therefore need to establish their political support base.

B Newspaper Coverage of Two Leaders

In Section "Kazakhstan: Diarchy by Nazarbayev and Tokayev", we argue that citizens in Kazakhstan were well aware that their government is under a tutelary regime. This section provides supplementary evidence that the state media of Kazakhstan was actively publicizing the dual leadership of Nazarbayev and Tokayev.

We use data based on *Kazakhstanskaya Pravda*, the most prominent state newspaper in the country, which is issued every weekday. Intriguingly, on the front page of its print version, the newspaper reported what events and meetings Nazarbayev and Tokayev had attended on the previous day. These articles were presented with their pictures taken in those meetings and events, making their leadership visible to readers. Focusing on these front-page articles on such events and policy meetings, we simply calculate the proportions of the articles presented with the pictures of (1) only Nazarbayev, (2) Tokayev, and (3) both Nazarbayev and Tokayev, respectively. We collect 507 articles in total, which were published between 1 January 2019, a few months before the presidential resignation of Nazarbayev, and 8 December 2020, when the joint rule between Tokayev and Nazarbayev was being in action.[1]

The state newspaper made public the dual leadership of Nazarbayev and Tokayev during the period from Nazarbayev's resignation to the month before our survey began. Overall, 12.3% of the front pages published between March 2019 and December 2020 featured Nazarbayev's policy activities, 40.2% covered Tokayev's, and 20.9% percent presented both leaders'. Although Tokayev appeared more often, Nazarbayev still had significant presence in the state media.

Figure B.1 shows a clearer pattern of the state media appearances of the two leaders. This figure plots the weekly number of three types of front page appearances: Nazarbayev only, Tokayev only, and both. On the x-axis, the first date of our data set (January 7, 2019), the date that Nazarbayev announced his resignation (vertical dashed line, March 18, 2019), and the end date of our data set (December 7, 2020) are labeled. As expected, Nazarbayev's sole appearances declined after his resignation. However, the stark difference before and after the resignation is observed for Tokayev's sole appearances and joint appearances of the two leaders. While no front page coverage of Tokayev, both leaders, or Nazarbayev and other prominent political figures was observed until Nazarbayev's resignation, immediately after that, the state media suddenly started communicating the dual leadership of Tokayev and Nazarbayev to the public. As the weekly numbers of appearances of the two leaders

[1]The source of this data set is Hokkaido University Library's collection of the printed version of *Kazakhstanskaya Pravda*. PDF files are available upon request.

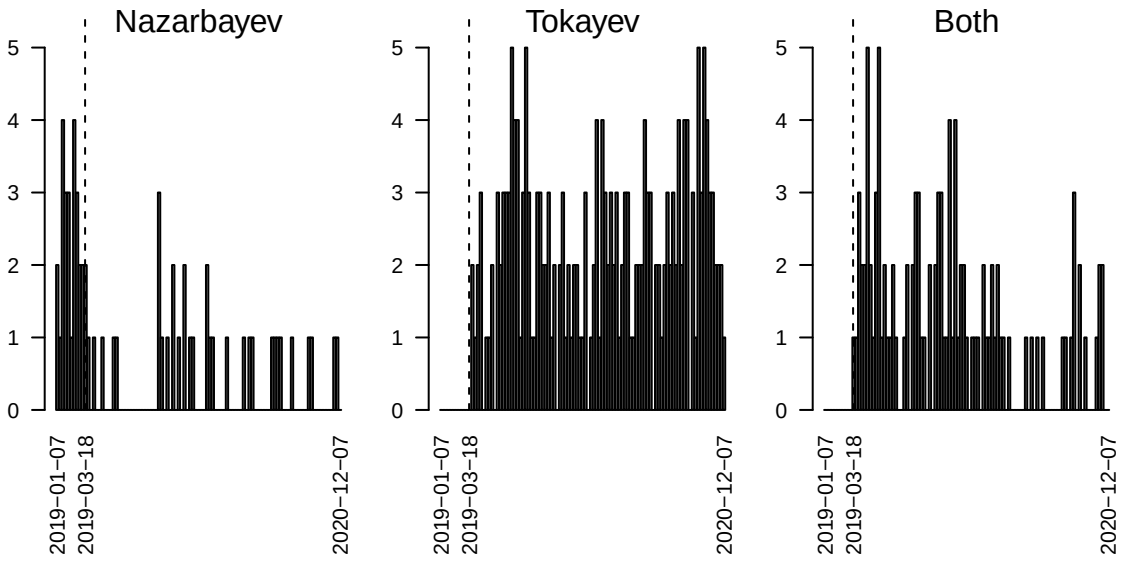

Figure B.1: Weekly Number of Front Page Appearances of Two Leaders.

are comparable to those of Nazarbayev's sole appearances before his resignation, we can conclude that people in Kazakhstan were well aware of the tutelage given the state media's effort in the authoritarian media environment.

C Research Design

Our survey used a nationally representative sample of the adult population in Kazakhstan. To address potential social desirability bias, we relied on two indirect questioning techniques: the item count technique (a.k.a. the list experiment) and the endorsement experiment. This section describes the survey sampling and introduces the design and statistical analysis of the indirect questioning survey experiments.

C.1 Survey Sampling

The survey was conducted from January to March in 2021. The target sample size was $3,000$ respondents consisting of Kazakh citizens of age 18 or older and age 75 or younger. To obtain a nationally representative sample, we used a multi-stage stratified sampling design where the stratas are residency locations and households.

The first level of stratification is residency locations. The survey covers fourteen *oblasts* in the country and three cities (Almaty, Astana, and Shymkent). Each *oblast* is split into the urban and rural areas based on the definition by the National Statistical Committee of Kazakhstan, and thus there were 31 strata in total for the entire country. We allocated 150 Primary Stage Units (PSUs) of twenty households to each of these stratum so that the proportion of respondents from each stratum in the sample is proportional to the population proportion of each stratum. For the population proportion and allocated number of PSUs/interviews, see Table C.1.

Within each PSU, twenty households were sampled by enumerators. The starting point of sampling is the geographic center of the PSU in urban areas while in rural areas sampling began randomly with either an administrative building, a post office, a school, a bus station in the center of a village, or the first or the last house from the entrance of a village. Starting from the given address/point, each interviewer followed the random route method, sample every third household on their right, and turned right at the end of each block. If a starting address or a selected building on the route was an apartment, the interviewer walked from the top floor selecting every sixth apartment unit on her right. For each selected household, the interviewer attempted up to three contacts at different times of the day, days of the week, and the weekend within the survey period to conduct a successful interview. In areas where the interviewer could not return on a different day, she or he made attempts with at least a two-hour gap between each attempt before substituting the household. Geolocation data for all visits were recorded in contact sheets completed by interviewers.

Only one respondent within each household was interviewed. The "last birthday method" was used to select a respondent if more than one adult person resided in a sampled household.

Oblast		Type of Residency		Allocated # of Interviews			Allocated # of PSUs	
		Urban	Rural	Total	Urban	Rural	Urban	Rural
Akmola Oblast	N	348673	391324	120	60	60	3	3
	%	47.12%	52.88%					
Aktobe Oblast	N	551132	312389	140	80	60	4	3
	%	63.82%	36.18%					
Almaty Oblast	N	460534	1566060	340	80	260	4	13
	%	22.72%	77.28%					
Atylau Oblast	N	298627	328575	100	40	60	2	3
	%	47.61%	52.39%					
West Kazakhstan Oblast	N	336460	313000	120	60	60	3	3
	%	51.81%	48.19%					
Zhambyl Oblast	N	444493	676276	180	80	100	4	5
	%	39.66%	60.34%					
Karaganda Oblast	N	1099029	281009	220	180	40	9	2
	%	79.64%	20.36%					
Kostanai Oblast	N	473971	400370	140	80	60	4	3
	%	54.21%	45.79%					
Kyzylorda Oblast	N	349129	439644	140	60	80	3	4
	%	44.26%	55.74%					
Mangystau Oblast	N	270794	398365	100	40	60	2	3
	%	40.47%	59.53%					
Turkestanskaya Oblast	N	381135	1575381	320	60	260	3	13
	%	19.48%	80.52%					
Pavlodar Oblast	N	533099	221340	120	80	40	4	2
	%	70.66%	29.34%					
North Kazakhstan Oblast	N	251365	305422	100	40	60	2	3
	%	45.15%	54.85%					
East Kazakhstan Oblast	N	847680	534173	220	140	80	7	4
	%	61.34%	38.66%					
Nur-Sultan City	N	1047966	0	180	180	0	9	0
	%	100%	0%					
Almaty	N	1829019	0	300	300	0	15	0
	%	100%	0%					
Symkent	N	1005996	0	160	160	0	8	0
	%	100%	0%					
Republic of Kazakhstan		10529102	7743328	3000	1720	1280	86	64

Table C.1: Sampling Stratas and Allocated Number of PSUs. The data on population come from statistics data of the Republic of Kazakhstan on July 1, 2018.

If none in the sampled household is adult or no adult members of the household agreed to answer the survey, the interviewer continued to the next eligible household.

C.2 Item Count Technique

Soliciting truthful responses to a survey question is particularly challenging when there is a socially desirable answer to the question. This problem is called *social desirability bias*, which is the bias caused by the respondents who conceal the truth to make their past behavior or opinion seem appropriate or acceptable. For example, evidence suggests that survey respondents in the United States overreport their turnout in past elections (e.g., Silver, Anderson, and Abramson, 1986; Bernstein, Chadha, and Montjoy, 2001; Enamorado and Imai, 2019). In authoritarian countries, where people are expected to show support for their dictators, the problem is even severer when a survey tries to measure respondents' political attitudes. Since expressing political attitudes may harm the repondent physically, responses

to a politically sensitive questions are unlikely to reflect the true attitudes in such contexts. Moreover, in some extreme cases, collecting and recording answers itself may be unethical due to the danger to the respondents.

To measure overall public support for the former and current authoritarian presidents in Kazakhstan while avoiding the concern about social desirability bias, we rely on an indirect questioning technique called the *item count technique*, or also known as the *list experiment* (Blair and Imai, 2012; Glynn, 2013). The key idea of this technique is that respondents are asked to tell only an aggregate number of actors whom they generally support, instead of whether they support each actor. In particular, the list experiment question in our survey reads:

> I'm going to read you a list with the names of different groups and individuals on it. After I read the entire list, I'd like you to tell me how many of these groups and individuals you broadly support, meaning that you generally agree with the goals and policies of the group of individuals. Please don't tell me which ones you generally agree with; only tell me HOW MANY groups and individuals you broadly support.

As it clearly states, our respondents were told *not* to choose options and therefore their attitudes were hidden even before the response record was de-identified.

While the item count technique does not allow us to measure respondents' support for dictators directly at the individual level, randomly assigning different lists enables the identification of the support rate within a population. In a typical list experiment, each respondent is randomly assigned to a non-sensitive list group and a sensitive list group. Respondents in the non-sensitive list group are shown a list of three or four groups and individuals about whom opinions are not sensitive. However, the respondents assigned to the sensitive list group view a list that includes the name of a dictator *in addition to* the names included in the non-sensitive list. The difference of the average response between the two groups identifies the treatment effect of having the additional name in the list due to the random assignment of the lists. In other words, the proportion of the respondents who would increase their response (the number of actors they support) if the list included the additional name can be consistently estimated by the difference-in-means estimator.[2]

There are two sensitive list groups in addition to a non-sensitive list group in our list experiment, because we measure public support for each of the former and current presidents. In particular, our non-sensitive list group viewed the following list:

> Akim of your city/region

[2]For more details about statistical analysis of list experiments, see Blair and Imai (2012).

Foreign NGOs
Local farmers
Big businesses

The first sensitive list group is intended to measure support for the current President Tokayev:

Akim of your city/region
Foreign NGOs
Local farmers
Big businesses
President Kassym-Jomart Tokayev

whereas the second sensitive list group is about the former President Nazarbayev:

Akim of your city/region
Foreign NGOs
Local farmers
Big businesses
The Former President Nursultan Nazarbayev

It is worth noting that there is no reason to consider any of the four items in the non-sensitive list above being sensitive. With this assumption, we can use the average response in that group as an estimate of the average number of the non-sensitive actors whom the respondents in the other groups support, and hence the approval rate for Tokayev or Nazarbayev is estimated by taking the difference in the average response to this list question between the non-sensitive list group and the Tokayev or Nazarbayev list group.

C.3 Endorsement Experiment

In addition to the list experiment, we use another indirect questioning technique that is known as the endorsement experiment. In endorsement experiments, "randomly selected respondents are asked to express their opinion about several policies endorsed by a socially sensitive actor of interest. These responses are then contrasted with those from a control group that receives no endorsement. If the endorsement by a political actor induces more support for policies, then this is taken as evidence for the existence of support for that actor" (Bullock, Imai, and Shapiro, 2011). The endorsement experiment is more indirect than the list experiment, since endorsement experiment questions ask about support for policies, not politicians. In list experiments, respondents in the sensitive list group realize that they are asked about support for a dictator, though they also recognize their true attitudes will be hidden. However, respondents in an endorsement experiment do not even know that the

experiment is intended to measure support for a politician, since the question does not seem to be about the person. Therefore, the endorsement experiment better ameliorates the social desirability bias than the list experiment.

In our endorsement experiment, the first sentence of each question provided factual information about a policy item. Then, a randomly selected sentence referring to an endorser follows the first sentence. This sentence states that one of three endorsers is deeply involved in adopting and promoting a policy. An example of our endorsement experiment question is:

> Under a new system of compulsory health insurance, workers need to pay a larger amount of contributions, which in turn enables the government to provide indispensable health care for free, including ambulance, primary health care, emergency care, etc. **Since his inauguration in June 2019, President Kassym-Jomart Tokayev has been leading efforts to promote the policy while declaring his strong support for this new healthcare plan.** How much do you support such a plan? (bold added)

The text in bold is a randomly assigned endorsement, whereas the other two endorsement sentences are:

- "Since his presidential resignation in March 2019, Nursultan Nazarbayev has been leading efforts to promote the policy while declaring his strong support for this new healthcare plan"
- "Since the presidential election last June, both President Kassym-Jomart Tokayev and Nursultan Nazarbayev have been equally leading efforts to promote the policy while declaring their strong support for this new healthcare plan"

The response variable is recorded on a 4-point Likert scale where (1) "Not at all" (2) "Just a little," (3) "Somewhat," (4) "A lot."

We did not use the "control" condition where no endorser is shown to the respondents for two reasons. First, our substantive focus is whether tutelary power (i.e., Nazarbayev's backing for Tokayev) leads to greater support for policy outcomes. Therefore, our primary interest is in the effect of having *both* endorsers over Tokayev. In addition to this comparison, we included the Nazarbayev endorser condition to examine people's views on Nazarbayev's involvement without formal power. Second, the condition without any endorsers may obscure the effect of the other endorsements, because we are unable to find the political actors who are implicitly attached to each policy item in each respondent's mind. In our experiment where the endorsers are the former and current presidents, the no endorser condition is

particularly problematic because they are in fact involved in the policies to some extent. We aimed to avoid this ambiguity by explicitly priming particular presidents' names.

Endorsement experiments typically use multiple policy items, and ours is not an exception. Due to the fact that respondents are not asked about their support for endorsers at all, a single policy question does not provide sufficient information to estimate it. A solution to this problem is to ask each respondent multiple questions and aggregate their answers statistically. In our experiment, we used six policy items: health insurance, education, green energy, anti-corruption, ODA, and AI. For English translation of all endorsement questions, see SI E.

C.3.1 Statistical Analysis of the Endorsement Experiment

To combine information from multiple questions, we use the Bayesian measurement model proposed by Bullock, Imai, and Shapiro (2011). It employs the item response theory (IRT) model with the probit link to aggregate each respondent's answers across multiple items, and a latent variable that represents support for an endorser is added to the "ability" parameter. The goal of the model is to conduct posterior inference on this latent variable by extracting common patterns across items and exploiting the randomization of endorsers. In addition, the use of this measurement model allows us to examine the relationship between respondents' covariates and the latent support for endorsers.

Formally, let Y_{ij} denote the observed ordered response variable, which takes one of the following values, $\{1, 2, 3, 4\}$. Let $T_i \in \{0, 1, 2\}$ indicate the randomized endorser variable, which represents the endorser assigned to respondent i. Then, the individual level model is given by the following ordered probit model,

$$\Pr(Y_{ij} \leq l \mid T_i = k) = \Phi(\alpha_{jl} - \beta_j(x_i + s_{ijk})) \tag{1}$$

for $k = 0, 1, 2$ where $\alpha_{j1} = 0$, $\alpha_{j4} = \infty$, and $\alpha_{jl} < \alpha_{j,l+1}$ for any j and l. In this model, x_i represents respondent i's overall support for the government policy and s_{ijk} denotes the effect of endorsement by endorser k on question j for respondent i. As in the standard IRT model, α_{jl}'s are the item difficulty parameters and β_j is the item discrimination parameter. In the current context, α_{jl}'s reflect the degree to which a policy is supported particularily whereas β_j represents the amount of information each question reveals about respondents' overall support for the government.

We model x_i and s_{ijk} hierarchically as follows using the individual level covariates Z_i and the PSU's type (urban/rural) indicator $V_{\text{PSU}[i]}$,

$$x_i \overset{\text{indep.}}{\sim} \mathcal{N}(\delta_{\text{PSU}[i]} + Z_i^\top \delta^Z,\ 1) \tag{2}$$

$$s_{ijk} \overset{\text{indep.}}{\sim} \mathcal{N}(\lambda_{k,\text{PSU}[i]} + Z_i^\top \lambda_k^Z,\ \omega_k^2) \tag{3}$$

$$\delta_{\text{PSU}[i]} \overset{\text{indep.}}{\sim} \mathcal{N}(\delta + V_{\text{PSU}[i]}^\top \delta^V,\ \sigma^2) \tag{4}$$

$$\lambda_{k,\text{PSU}[i]} \overset{\text{indep.}}{\sim} \mathcal{N}(\lambda_k + V_{\text{PSU}[i]}^\top \lambda_k^V,\ \psi_k^2) \tag{5}$$

Conditionally conjugate prior distributions, the normal distribution for the coefficents and the inverse chi-squared distribution for the variance parameters, are placed to complete this Bayesian hierarchical model. Markov chain Monte Carlo (MCMC) simulations for posterior inference is implemented via the R package `endorse` (Shiraito and Imai, 2018).

Our main estimand of interest in this model is the probability that endorser k has a positive effect on respondent i's support for policy j, i.e., the probability that $s_{ijk} \geq 0$. From equations (3) and (5), we have

$$\Pr\left(s_{ijk} \geq 0 | Z_i, V_{\text{PSU}[i]}\right) = \Phi\left(\frac{\lambda_k + V_{\text{PSU}[i]}^\top \lambda_k^V + \lambda_{k,\text{PSU}[i]} + Z_i^\top \lambda_k^Z}{\sqrt{\omega_k^2 + \psi_k^2}}\right) \tag{6}$$

where Φ is the standard normal cumulative distribution function. We compute this quantity using each MCMC draw of the relevant parameters and average them across respondents.

The quantity of interest defined in equation (6) is interpreted as follows. Throughout the paper, we set Tokayev's endorsement of a policy as the baseline condition ($T_i = 0$). Therefore, the quantity being .5 indicates that the endorser (Nazarbayev, or both Nazarbayev and Tokayev) increases the respondent's support for the policy with the 50% probability while decreases it with the 50% probability, relative to Tokayev's single endorsement. In other words, .5 is the threshold at which the effect of the endorser on the respondent's support for a policy is zero on average. If the quantity is greater (less) than .5, the endorser is more (less) likely to increase than decrease the respondent's support for the policy. We present the posterior median and the 95% credible interval of this quantity computed from the MCMC draws in our analysis.

D Principles of Research Ethics

It is important to adhere to the principles of research ethics for the studies that involve human subjects. Our survey addresses the human subject research ethics in the following manner. Before starting each interview, the enumerator informed the respondent that this project was a research study and interviews would not be conducted unless the respondent understood the project's goals and agreed with participating in the survey. After the interview, the respondent was debriefed about the intentions of the survey to minimize the social and individual impacts of the research process on respondents.

The project does not involve any deception. For the endorsement experiment, based on information from the country's newspapers, we used policy items for which the Kazakh government actually promoted and the political leaders involved in their policymaking processes. For the list experiment, all the items do not involve deception and are based on factual information in the country.

We fairly compensated survey participants for an approximately 40 minute interview. We offered 2–2.5 USD per respondent by presenting a small gift such as a box of tea or a large pack of cookies as a token of appreciation for their time. Given that the minimum hourly wage of the country in 2021 is about 0.6 USD, the amount of honorarium is substantively large.

E Endorsement Experiment Questions

Endorsement experiment questions are shown below. Respondents are assigned to one of the three groups, where group 1's endorser is "President Kassym-Jomart Tokayev," group 2's endorser is "the former President Nursultan Nazarbayev," and group 3's endorser is "both President Kassym-Jomart Tokayev and the former President Nursultan Nazarbayev." Each respondent receives a common endorser across the policy items. Response variables are recorded on a 4-point Likert scale: (1) Not at all (2) Just a little, (3) Somewhat, (4) A lot.

Healthcare Policy

1. Under a new system of compulsory health insurance, workers need to pay a larger amount of contributions, which in turn enables the government to provide indispensable health care for free, including ambulance, primary health care, emergency care, etc. Since his inauguration in June 2019, President Kassym-Jomart Tokayev has been leading efforts to promote the policy while declaring his strong support for this new healthcare plan. How much do you support such a plan?

2. Under a new system of compulsory health insurance, workers need to pay a larger amount of contributions, which in turn enables the government to provide indispensable health care for free, including ambulance, primary health care, emergency care, etc. Since his presidential resignation in March 2019, Nursultan Nazarbayev has been leading efforts to promote the policy the policy while declaring his strong support for this new healthcare plan. How much do you support such a plan?

3. Under a new system of compulsory health insurance, workers need to pay a larger amount of contributions, which in turn enables the government to provide indispensable health care for free, including ambulance, primary health care, emergency care, etc. Since the presidential election last June, both President Kassym-Jomart Tokayev and Nursultan Nazarbayev have been equally leading efforts to promote the policy while declaring their strong support for this new healthcare plan. How much do you support such a plan?

Education Policy

1. Under a new education initiative, the government intends to increase expenditures on education and science, which is expected to improve quality of education by reviewing qualification requirements for teachers, setting a single standard for state schools, and strengthening academic institutions by establishing partnerships with the world's leading universities. Since his inauguration in June 2019, President Kassym-Jomart

Tokayev has been leading efforts to promote this policy while declaring his strong support for this new education initiative. How much do you support such a plan?

2. Under a new education initiative, the government intends to increase expenditures on education and science, which is expected to improve quality of education by reviewing qualification requirements for teachers, setting a single standard for state schools, and strengthening academic institutions by establishing partnerships with the world's leading universities. Since his presidential resignation in March 2019, Nursultan Nazarbayev has been still leading efforts to promote this policy while declaring his strong support for this new education initiative. How much do you support such a plan?

3. Under a new education initiative, the government intends to increase expenditures on education and science, which is expected to improve quality of education by reviewing qualification requirements for teachers, setting a single standard for state schools, and strengthening academic institutions by establishing partnerships with the world's leading universities. Since the presidential election in June 2019, both President Kassym-Jomart Tokayev and Nulsultan Nazarbayev have been equally leading efforts to promote the policy while declaring their strong support for this new education initiative. How much do you support such a plan?

Green Energy Policy

1. Urged by the recent oil price shock, the country is purporting to make a firm commitment to the development of green energy for sustainable economic growth. Since his inauguration in June 2019, President Kassym-Jomart Tokayev has been leading efforts to promote this policy while declaring his strong support for this new green energy plan. How much do you support such a plan?

2. Urged by the recent oil price shock, the country is purporting to make a firm commitment to the development of green energy for sustainable economic growth. Since his presidential resignation in March 2019, Nursultan Nazarbayev has been still leading efforts to promote this policy while declaring his strong support for the new green energy plan. How much do you support such a plan?

3. Urged by the recent oil price shock, the country is purporting to make a firm commitment to the development of green energy for sustainable economic growth. Since the presidential election in June 2019, both President Kassym-Jomart Tokayev and Nursultan Nazarbayev have been equally leading efforts to promote this policy while declaring

their strong support for the new green energy plan. How much do you support such a plan?

Anti-Corruption Policy

1. In June 2019, the Anti-Corruption Agency was established to more effectively prevent civil servants from committing graft schemes and bribes, requiring all civil servants to publish income and expense declarations. After his inauguration, President Kassym-Jomart Tokayev led efforts to create this independent agency for corruption while declaring his strong support for this anti-corruption policy. How much do you support such a plan?

2. In June 2019, the Anti-Corruption Agency was established to more effectively prevent civil servants from committing graft schemes and bribes, requiring all civil servants to publish income and expense declarations. Even after his presidential resignation, Nursultan Nazarbayev still led efforts to create this independent agency for corruption while declaring his strong support for this anti-corruption policy. How much do you support such a plan?

3. In June 2019, the Anti-Corruption Agency was established to more effectively prevent civil servants from committing graft schemes and bribes, requiring all civil servants to publish income and expense declarations. After the presidential election in June 2019, both President Kassym-Jomart Tokayev Nursultan Nazarbayev equally led efforts to create this independent agency for corruption while declaring their strong support for this anti-corruption policy. How much do you support such a plan?

ODA

1. The government is currently working on strengthening Official Development Assistance (ODA) to support people living below the poverty line in other Central Asian countries and Afghanistan. Although this foreign aid program is expected to bolster ties between Kazakhstan and its neighbors, Kazakhstan also holds the similar poverty and inequality problems. President Kassym-Jomart Tokayev has been leading efforts to promote this program while declaring his strong support for it. How much do you support such a plan?

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AI policy

1. The government is currently working to introduce Artificial Intelligence (AI) for the public administrative system. Although AI and big data analysis may risk personal data protection and other privacy issues, it may also correctly identify citizens' needs and efficiently implement public policies. President Kassym-Jomart Tokayev has been leading efforts to promote the AI policy while declaring his strong support for it. How much do you support such a plan?

2. The government is currently working to introduce Artificial Intelligence (AI) for the public administrative system. Although AI and big data analysis may risk personal data protection and other privacy issues, it may also correctly identify citizens' needs and efficiently implement public policies. The former President Nursultan Nazarbayev has been leading efforts to promote the AI policy while declaring his strong support for it. How much do you support such a plan?

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F Descriptive Analysis of Endorsement Experiment

Figure F.1 shows the empirical distribution of the response to each policy item for each endorser. Panels correspond to items whereas horizontal bars within each panel correspond to endorsers. Dark gray represents the proportion of "A lot" (i.e., greatest support) and the lighter gray is the lower the represented support level is. The shaded areas show the "Don't know" or "Refused" answer. The figure clearly shows that some policy items (in particular, "Education and Science" and "Corruption". For exact wording see SI E) are overwhelmingly supported by the respondents. This is not desirable, unfortunately, for the endorsement experiment.

Figure F.2 presents the average support for each policy by endorsers. While the level of public support varies across policies, difference across endorsers is observed in few items. Compared with Tokayev's unitary involvement, Nazarbayev's involvement causes a statistically significant difference only in the green energy item, and the joint involvement of both politicians does not lead to a significant difference in any item. On the one hand, these results suggest that policymaking under the tutelage of Nazarbayev does not provide a popularity boost for Tokayev's policies across policy areas. On the other hand, these results may be because of the nature of endorsement experiment. Endorsement experiment obfuscates respondents' true attitudes toward an endorser, which allows researchers to elicit the truthful response. However, the obfuscation of the true attitudes leads to lower statistical power, and therefore it is more difficult to detect the difference across endorsers. With the available data at hand, we can only conclude that there is no strong evidence for varying endorsement effects across policy areas.

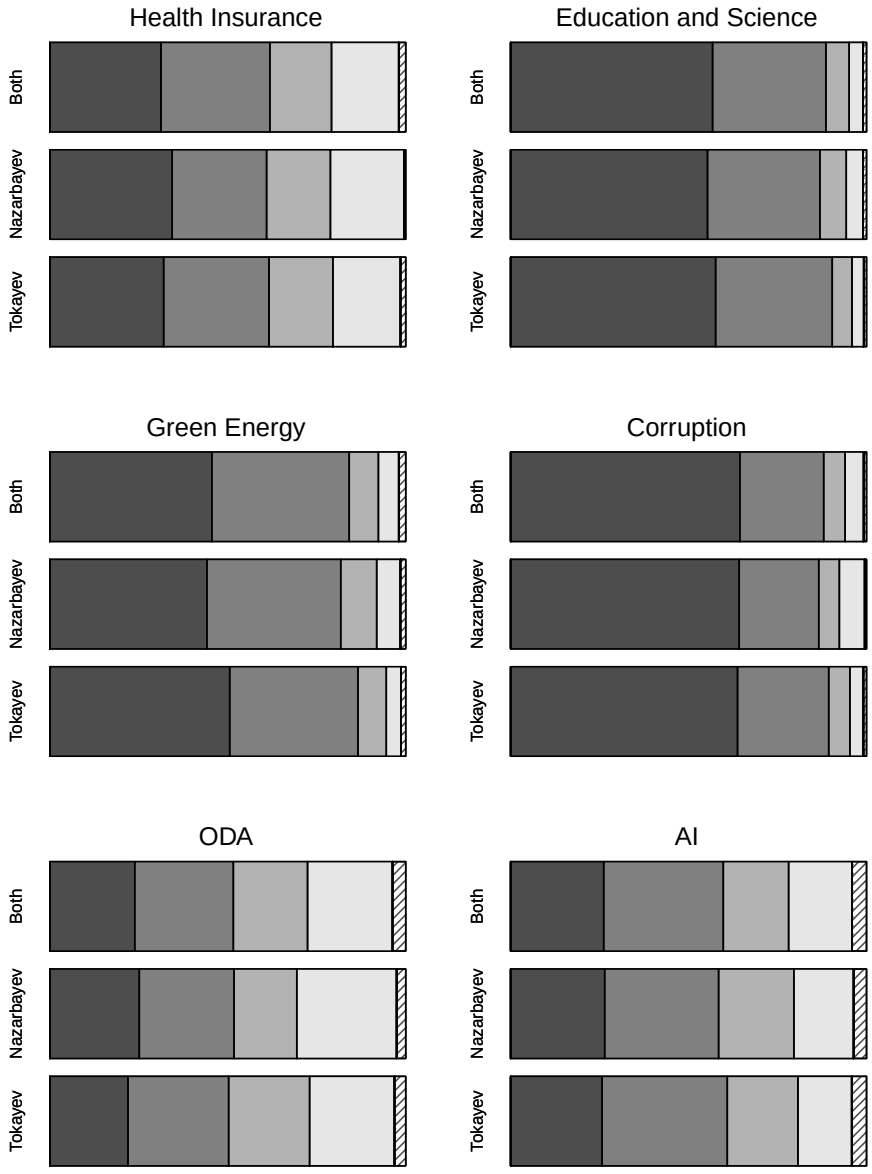

Figure F.1: Distribution of the Response in the Endorsement Experiment. Dark gray represents the proportion of "A lot" (greatest support) while light gray shows the proportion of "Not at all" (lowest support). Some policies (education and corruption) are highly supported regardless of the endorser.

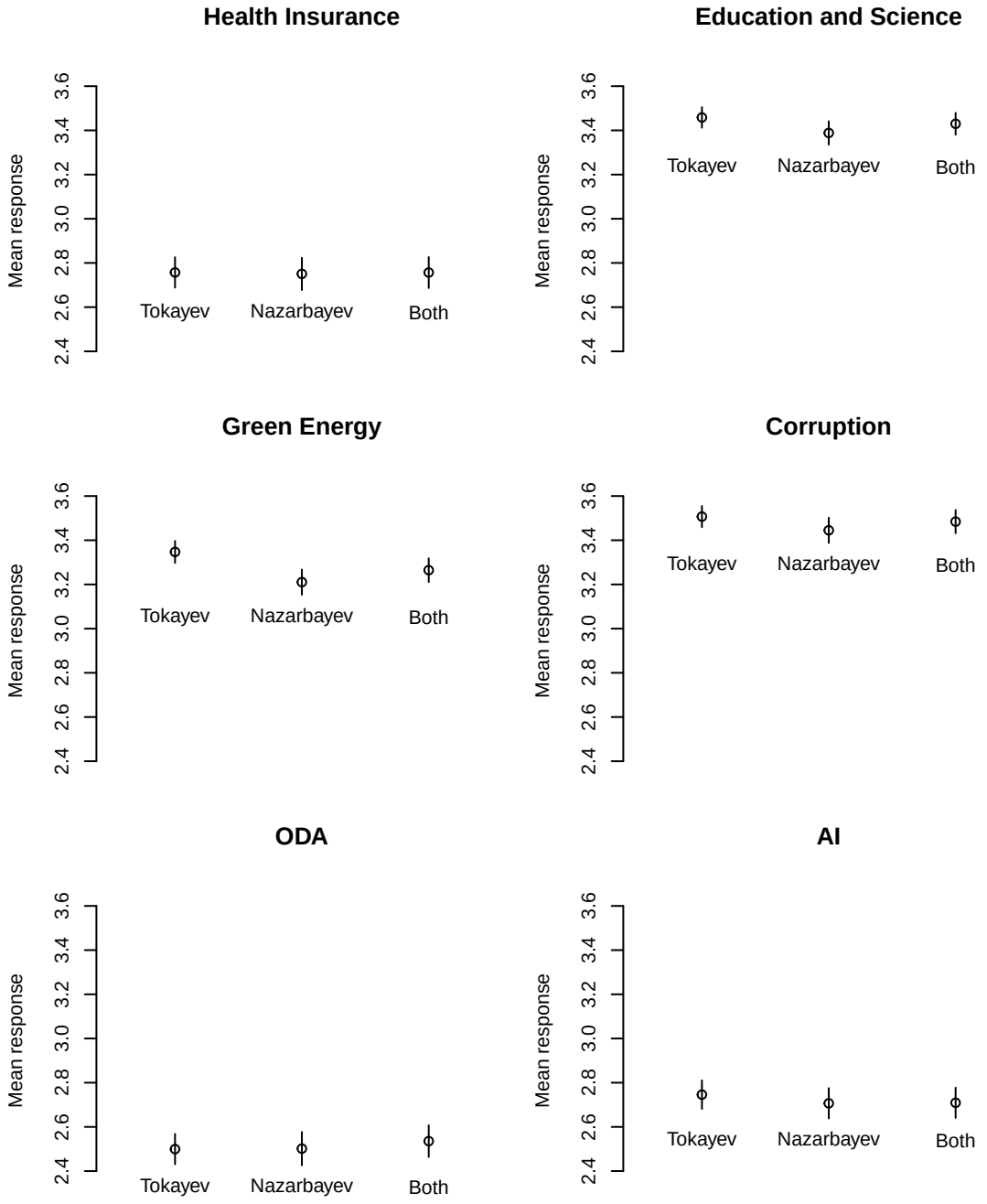

Figure F.2: Sample Average of the Response in the Endorsement Experiment. For each policy item, a circle represents the sample average of the response within an endorsement group, which is shown below the symbol. The response is coded from 1 (lowest support) to 4 (greatest support). The bars are the 95% confidence intervals.

G Regression Analysis of Endorsement Experiment

Our hierachical model described in SI C.3.1 allows us to explore some covariates' predictive relationships with estimated support. Although we did not preregister the hypotheses and the choice of covariates, we explore the following three covariates: (1) the vote share of Tokayev in the previous presidential election, (2) the vote share of Nazarbayev in the previous presidential election, and (3) the number of protests before and after Nazarbayev's resignation in 2019. All of these predictors are measured at the oblast (province) level, due to the data availability. Overall, we do not find strong evidence for the predictive relationships between the covariates and the estimated effect of Nazarbayev's involvement in policy making as a gurdian on public support.

Figures G.1 and G.2 present the probability of positive support for the endorser predicted by Tokayev's vote share in the 2019 presidential election and Nazarbayev's vote shares in the 2015 election, respectively.[3] The interpretation of the y-axis is identical to Figure 2 in the manuscript: We analyze the effects of Nazarbayev's sole endorsement and a joint endorsement by Nazarbayev and Tokayev on public support for policies, compared to Tokayev's endorsement. The 2019 presidential election was held to succeed formal presidential power to Tokayev, presuming that Nazarbayev would retain significant political influence as the the chairperson of the Security Counsel,[4] while the 2015 election was the last election Nazarbayev faced. With this context in mind, if Tokayev's vote share in the election is an indicator of popular support for the tutelary regime, Nazarbayev's endorsement, either jointly or individually, is expected to increase public support.

[3]The data is taken from the the website of the central election commission of the Republic of Kazakhstan (`https://www.election.gov.kz/eng/`).

[4]Validating that Kazakh voters was assuming that Nazarbayev would remain powerful when they casted their ballot in 2019 is difficult. Nevertheless, the following two claims can be safely made. First, vote shares more or less reflect regime strengths. Of course, vote shares in Kazakhstan are significantly manipulated by electoral fraud and thus are not a pure manifestation of public support. However, organizing blatant electoral fraud involves lots of organizational and human resources by ruling elites and regime supporters to signal their regime loyalty (e.g., Simpser, 2013; Rundlett and Svolik, 2016). It is well known that oblast akims, ruling party members, bureaucrats, and other local regime brokers mobilize regime supporters by using both fraud and co-optation techniques also in the case of Kazakhstan (Issacs, 2011; Higashijima, 2022). In this respect, although numbers themselves may not be accurate indicators for actual levels of public support, regional variations in vote shares are likely to be associated with which regions the extant regime consolidates power.

Second, Nazarbayev was then expected to maintain significant political influence behind Tokayev. Nazarbayev made amendments to the legislation in advance to strengthen the role of the Security Council and to stipulate that the first President is to become a life-long chair of the council a year before he resigned (Burkhanov, Orazgaliyev, and Araral, 2020). After his presidential resignation, he took the position of the chair of the Security Council. Therefore, until the massive mass protest occurred in January 2022 and Nazarbayev was dismissed as the Chair of the Security Council, it had been widely considered that Nazarbayev was still highly influential, although how influential he was was uncertain.

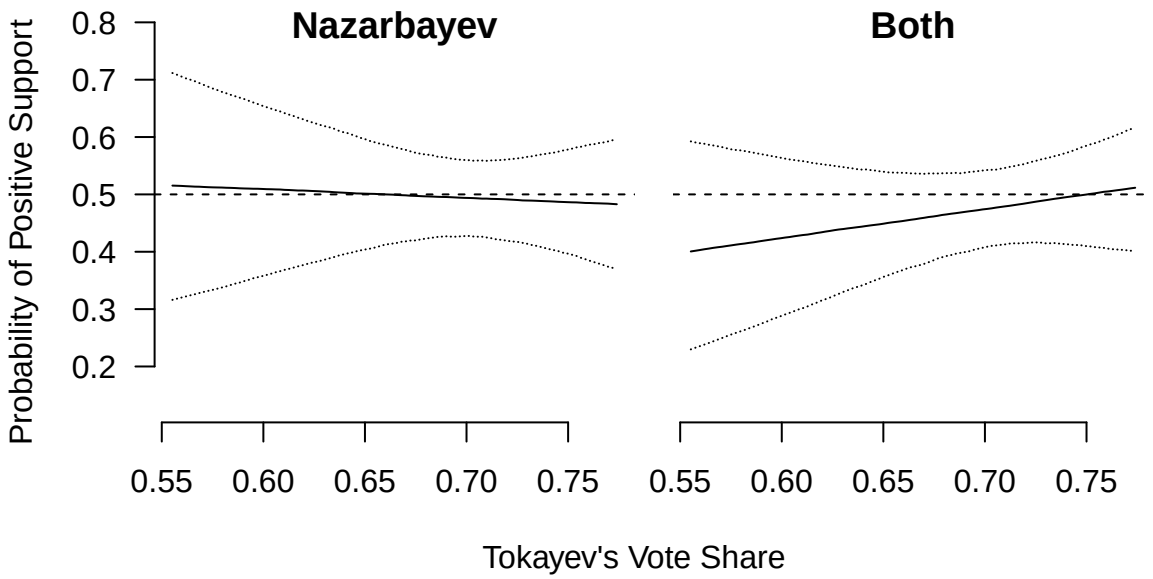

Figure G.1: Posterior Medians and the 95% Credible Intervals of the Probability that Support for the Endorser is Greater than Tokayev, Predicted by Observed Values of Tokayev's Vote Share in the Previous Presidential Election. The dashed line at 0.5 indicates that an endorsement neither increases nor decreases support for policies.

The evidence we find is mixed at best. The left panel of Figure G.1 shows the results for Nazarbayev's single endorsement. The fact that the plotted line is almost flat indicates that Tokayev's vote share does not predict an increase or decrease of public support. Whether Tokayev's winning margin was small or large, Nazarbayev's endorsement effect relative to Tokayev is estimated to be close to zero. The right panel for the joint endorsement of Nazarbayev and Tokayev, on the other hand, presents a little more nuanced results. A lower vote share is associated with a negative effect of the joint endorsement, although the probability of positive support for the joint endorsement is not statistically distinguishable from 0.5, meaning that we do not find enough evidence to rule out the possibility that policies endorsed only by Tokayev and policies endorsed by both Nazarbayev and Tokayev enjoy the same level of public support.

As shown in Figure G.2, we find little evidence that Nazarbayev's vote share in the 2015 election predicts the effect of his endorsement on public support. Compared to Tokayev's endorsement, Nazarbayev's endorsement, either replacing or supplementing Tokayev's one, is estimated to have no effect on public support for policies, regardless of Nazarbayev's vote share in the 2015 election. On the one hand, it would be surprising that the effect of his endorsement of a policy is not at all associated with his vote share in the 2015 election, if one interpreted the vote share as an indicator of popular support for him. On the other hand, these results are consistent with one of the possible reasons why tutelage was adopted in

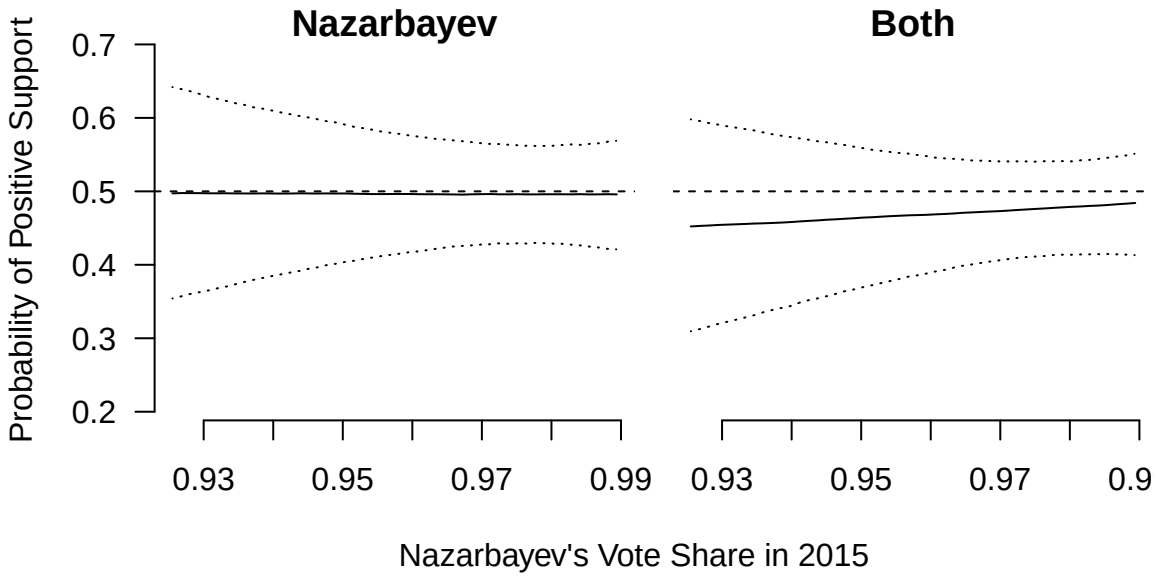

Figure G.2: Posterior Medians and the 95% Credible Intervals of the Probability that Support for the Endorser is Greater than Tokayev, Predicted by Observed Values of Nazarbayev's Vote Share in the Previous Presidential Election. The dashed line at 0.5 indicates that an endorsement neither increases nor decreases support for policies.

Kazakhstan even though it was not effective in increasing public support for the successor: difficulty of accurately measuring public support for the leader by authoritarian elections. As shown in the horizontal axis of Figure G.2, Nazarbayev's vote share in the 2015 election was above 90% in all provinces. A small variation from 90% to 99% is unlikely to be informative, not only to researchers but also to the regime itself, about the level of public support for the leader. When the regime adopted the tutelage of Nazarbayev and Tokayev in 2019, they might have misperceived that the public support for Nazarbayev was high enough to be transferred to Tokayev.

We also examine the association between the number of protests and the effect of Nazarbayev's endorsement on public support.[5] The results are shown in Figures G.3 and G.4. Again, we do not find clear evidence that the number of protests predicts the effect of Nazarbayev's endorsement on public support. In both figures, we plot the estimated probability that Nazarbayev's endorsement increases public support for policies on the y-axis, and the number of protests on the x-axis. In Figure G.3, we observe that the number of protests before Nazarbayev's resignation in 2019 has virtually no association with the effect of Nazarbayev's endorsement, as it is equally likely to increase and decrease public support for policies regardless of the number of protests. Figure G.4 shows suggestive evidence that Nazarbayev's

[5]The protest data are from the Oxus Society of Central Asian Affairs, Central Asia Protest Tracker (CAPT) available at `https://oxussociety.org/projects/protests/`.

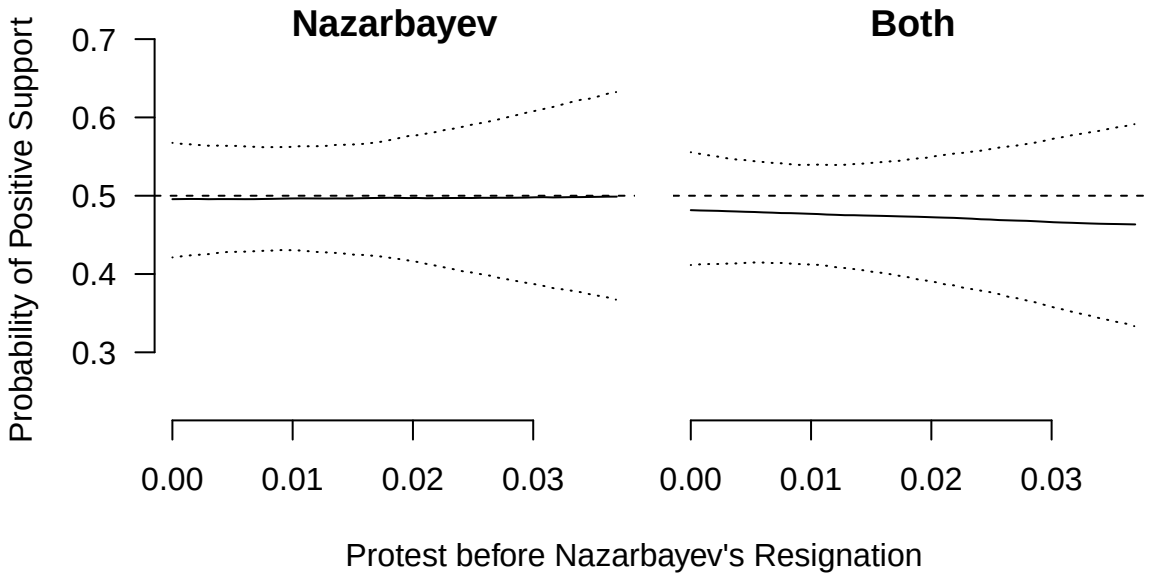

Figure G.3: Posterior Medians and the 95% Credible Intervals of the Probability that Support for the Endorser is Greater than Tokayev, Predicted by Observed Number of Protests before Nazarbayev's Resignation in 2019. The dashed line at 0.5 indicates that an endorsement neither increases nor decreases support for policies.

endorsement is more welcomed in oblasts with a higher number of protests after Nazarbayev's resignation. In particular, when Nazarbayev adds his endorsement to Tokayev's, its effect on public support seems to be greater where more protests occurred since 2019. Nevertheless, the no-effect .5 threshold of the probability of positive support is still included in the 95% credible interval of the estimated probability. With the available data, we cannot distinguish whether our analysis is underpowered, or the effect of Nazarbayev's endorsement is indeed not associated with the number of protests.

In sum, our analysis using the hierarchical model for endorsement experiment provides some evidence that Tokayev's vote share in the 2019 election and the number of protests after Nazarbayev's resignation are positively associated with Nazarbayev's boosting effect on public support for policies. However, the evidence is not strong enough to make any definitive conclusion on what factors are associated with the effect of Nazarbayev's endorsement.

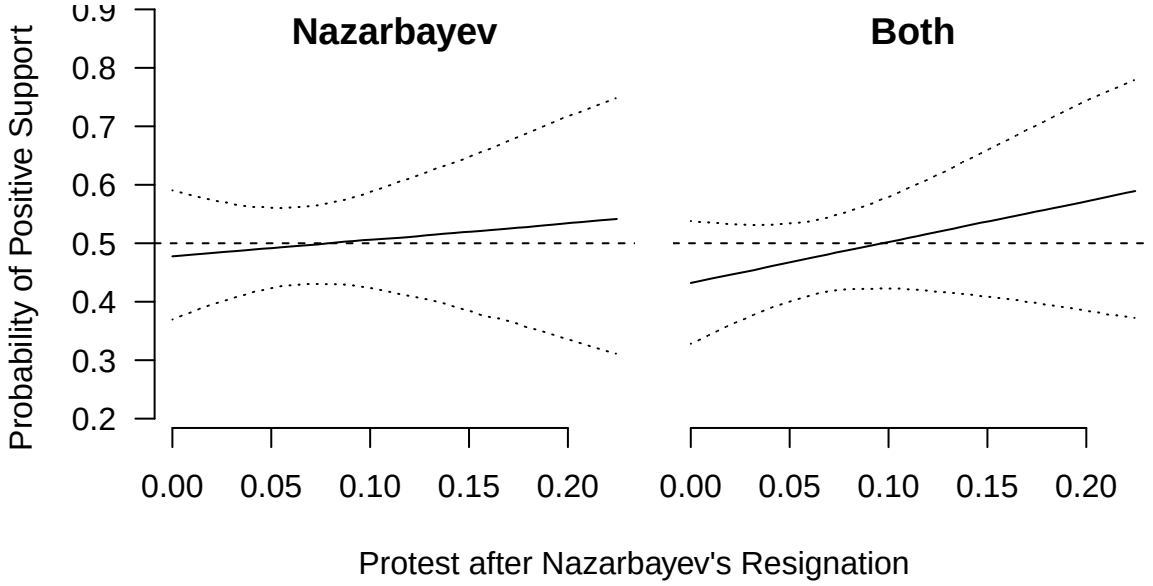

Figure G.4: Posterior Medians and the 95% Credible Intervals of the Probability that Support for the Endorser is Greater than Tokayev, Predicted by Observed Number of Protests before Nazarbayev's Resignation in 2019. The dashed line at 0.5 indicates that an endorsement neither increases nor decreases support for policies.

H Preregistered Hypotheses and Analysis Plan

The following hypotheses and analysis plan are preregistered at `https://doi.org/10.17605/OSF.IO/G9CD8`.

H.1 Hypotheses

In autocracies where a new leader succeeds power, gaining public support is highly important because the new regime faces lots of political uncertainty and hence remains unstable. To avoid the destabilization of new regimes, autocracies often allow retired leaders to influence decision-making processes within the government. In particular, in autocracies where power succession went smoothly, the former dictators still remain popular and hence are seen as powerful figures and often serve as the guardians for the new regimes.

There are pros and cons of such tutelary power in dictatorships. On the one hand, relying on the former leader's rich experience and high popularity among citizens, the new leader may be able to signal the new regime's strength and competence. On the other hand, the former leader is not endowed with formal power as the head of the government on the constitution. The lack of institutional legitimacy may negatively affect citizens' assessment of the former leader's involvement in decision-making processes.

Given this trade-off, we suggest that when deciding something formally, the joint decision-making of the former and current dictators is most likely to increase citizens' support for political leadership in new autocracies, compared to the scenarios where either only the former dictator or the current dictator involves in making policy decisions. Endorsement experiments (explained in the next section) are particularly suitable to investigate this hypothesis because this type of survey experiment includes policy information to elicit respondents' true preferences on politically sensitive questions like leadership in dictatorships.

H1: The joint policy decision-making of the new and old leaders is more likely to be supported by citizens in the framework of endorsement experiments, compared to decision-making solely by either the former or current dictator.

The discussion above premises that the former dictator is still popular and is supported by citizens as a leader in autocracies where peaceful leadership succession has been put in practice. List experiments enable us to measure broad popularity for "retired" political leaders regardless of their participation in formal decision-making processes while mitigating social desirability bias.

H2: The former dictator is more likely to be supported than the current dictator in the framework of list experiments.

H.2 Analysis Plan

H.2.1 Statistical models

1. Difference-in-means analysis for the list experiment. We compute the difference-in-means estimates for the comparison between the control list group and each of the treatment list groups (the current and former presidents).

2. Test for detecting design effects. Following Blair and Imai (2012) , we conduct a statistical test for detecting design effects. If design effects are detected, we adjust for the effects using the proposed method by the aforementioned paper.

3. The Bayesian measurement model proposed by Bullock, Imai, and Shapiro (2011) for the endorsement experiment. Using the R package "endorse", we fit the non-hierarchical model and two hierarchical models without covariates to estimate the average probability of support for the former president and the combination of the former and current presidents relative to the current president. We use urban and rural areas in 14 oblasts (provinces in Kazakhstan) and three major cities as groups in one hierarchical model whereas we use 150 primary sampling units in the other model. The quantity of interest is the probability of latent support for each actor being positive relative to the baseline.

H.2.2 Inference criteria

For the difference-in-means analysis for the list experiment, we use the conventional hypothesis test with the significance level being .05.

For the endorsement experiment, we present the posterior distribution of the quantity of interest using Markov chain Monte Carlo draws.

H.2.3 Data exclusion

We remove the data points that is highly likely to be fabricated by survey enumerators. We examine the mean and variance of the response variable for each enumerator and remove those respondents interviewed by any suspicious enumerators. We include the mean and variance for each enumerator in our analysis results.

H.2.4 Missing data

We conduct the available-case analysis for the list experiment.

For the endorsement experiment, the Bayesian measurement models we use handles missing responses so that those missing responses do not contribute to the posterior density.

H.2.5 Exploratory analysis

For both list and endorsement experiments, we conduct exploratory analysis on the relationship between respondents' covariates and their level of support for dictators using multivariate regression analysis provided by R packages "list" and "endorsement".

I Table for the Difference-in-means Estimates of List Experiment

	Tokayev	Nazarbayev	Control
Sample Mean	2.43	2.21	1.77
Sample Variance	1.84	1.48	0.82
N	1021	992	987

Table I.1: Statistics Used to Compute the Difference-in-means Estimates of Public Support for Tokayev and Nazarbayev in the List Experiment.

J Robustness of Broken List Experiment

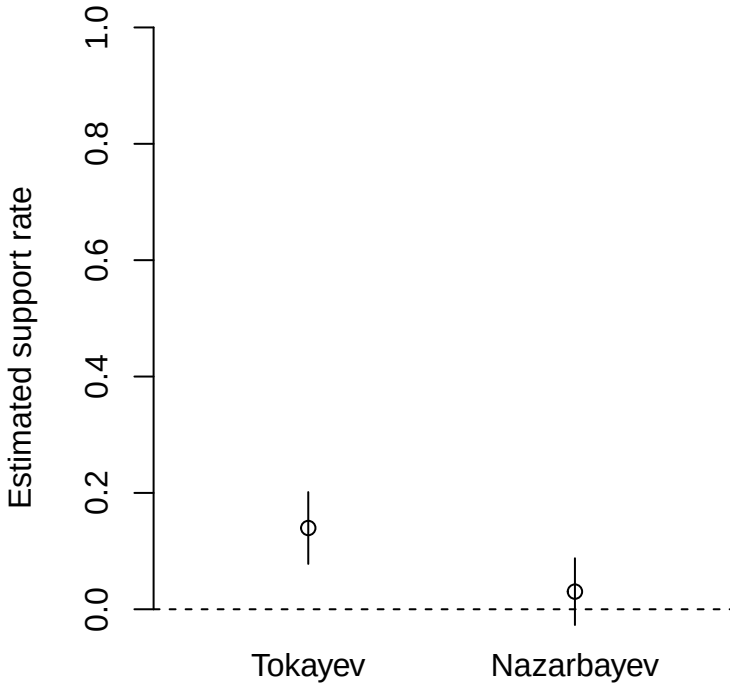

Figure J.1: Difference-in-means Estimates of Public Support for Tokayev and Nazarbayev in the List Experiment (Robustness Check for Implementation Failure). This figure shows the estimates assuming that all respondents in the sensitive list groups who answered "1" intended to answer "0". The vertical bars are the 95% confidence intervals. The dashed line at the bottom represents zero public support.

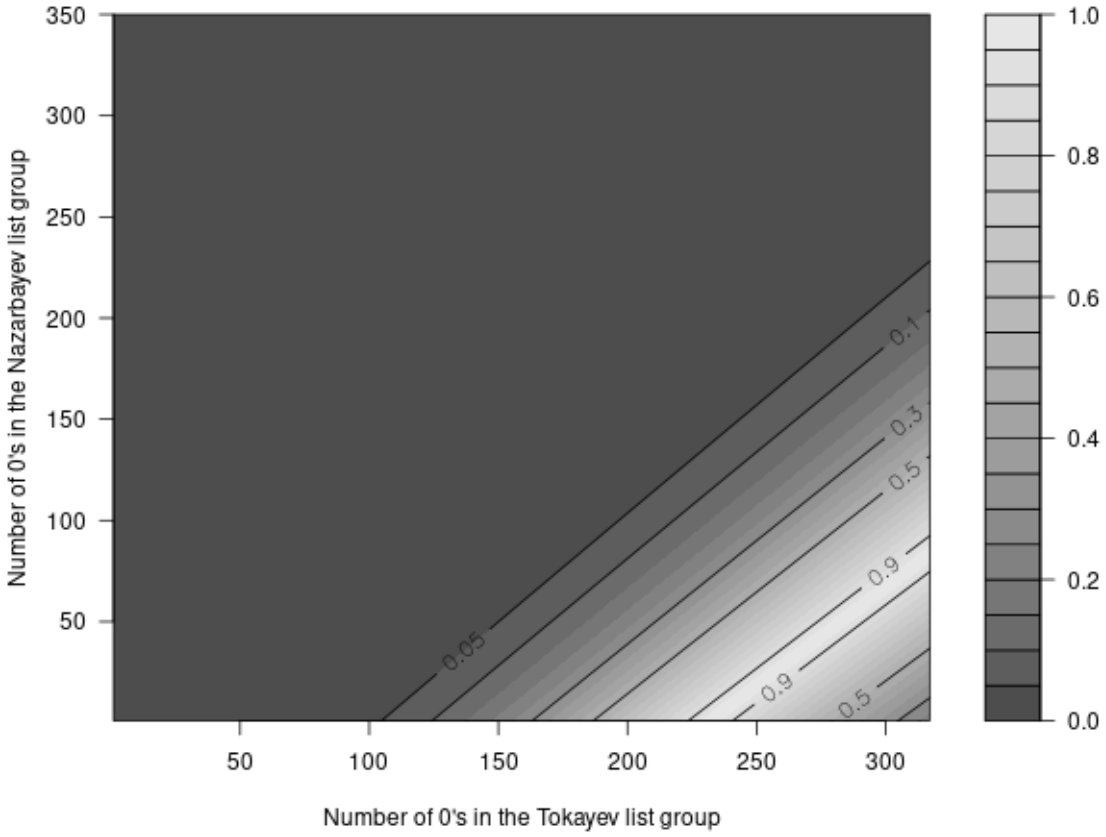

Figure J.2: P-values of the Difference between Tokayev's Support and Nazarbayev's Support under the Numbers of Respondents who Intended to Answer "0". The bottom-right region under the contour line of 0.05 indicates the combinations of the numbers of respondents with which the difference between Tokayev's support and Nazarbayev's support is not statistically significant at the 5% level. For instance, if 200 respondents in the Tokayev list group and 100 respondents in the Nazarbayev list group who answered "1" intended to answer "0", then the two support rates are statistically indistinguishable.

K Posterior Quantiles of Model Parameters

Tables K.1 and K.2 present the 2.5, 50, and 97.5 percentiles of the MCMC draws of the endorsement experiment model parameters that are used to create Figures 2 and G.1.

	Item Parameters		
	2.5%	50%	97.5%
alpha.1	-3.81	-0.32	1.36
beta.1	0.66	0.73	0.79
alpha.2	-3.67	-0.79	0.66
beta.2	0.54	0.60	0.67
alpha.3	-3.47	-0.56	0.91
beta.3	0.55	0.61	0.67
alpha.4	-3.24	-1.35	-0.41
beta.4	0.34	0.38	0.44
alpha.5	-3.14	-0.03	1.49
beta.5	0.58	0.64	0.70
alpha.6	-3.08	0.12	1.66
beta.6	0.60	0.66	0.72

	λ		
	2.5%	50%	97.5%
female.1	-0.27	-0.03	0.23
age.1	-0.01	-0.00	0.00
income.1	-0.07	0.01	0.09
income.na.1	-0.38	0.09	0.58
highedu.1	-0.29	-0.01	0.27
kazakh.1	-0.47	-0.10	0.26
russian.1	-0.44	-0.02	0.40
authatt.1	-0.17	-0.00	0.16
trust.pres.1	-0.05	0.10	0.25
trust.pres.na.1	-0.56	0.43	1.37
trust.rulep.1	-0.26	-0.10	0.06
trust.rulep.na.1	-0.47	0.26	1.00
private.sec.1	-0.19	0.06	0.33
female.2	-0.43	-0.20	0.06
age.2	-0.01	-0.00	0.01
income.2	-0.07	0.00	0.08
income.na.2	-0.25	0.21	0.69
highedu.2	-0.41	-0.14	0.14
kazakh.2	-0.49	-0.11	0.25
russian.2	-0.54	-0.11	0.33
authatt.2	-0.14	0.02	0.19
trust.pres.2	-0.03	0.13	0.29
trust.pres.na.2	-0.88	0.09	1.04
trust.rulep.2	-0.29	-0.12	0.04
trust.rulep.na.2	-0.69	0.08	0.86
private.sec.2	-0.14	0.12	0.39

Table K.1: Quantiles of the MCMC Draws for Endorsement Experiment Model Parameters (Item Parameters and λ).

	κ		
	2.5%	50%	97.5%
(Intercept).1	-5.79	0.25	6.59
urbanTRUE.1	-0.50	-0.15	0.19
Tokayev.share.1	-3.62	0.05	3.66
naz.share.2015.1	-6.26	-0.09	5.94
protest.bfNaz.1	-8.97	0.20	9.78
protest.afNaz.1	-2.76	0.68	3.96
(Intercept).2	-8.49	-2.55	3.53
urbanTRUE.2	-0.46	-0.12	0.22
Tokayev.share.2	-1.47	1.98	5.55
naz.share.2015.2	-4.72	1.15	7.05
protest.bfNaz.2	-10.65	-1.21	7.93
protest.afNaz.2	-1.45	1.67	4.91

	δ		
	2.5%	50%	97.5%
female	-0.42	-0.25	-0.08
age	-0.00	0.00	0.01
income	-0.06	-0.01	0.04
income.na	-0.48	-0.15	0.19
highedu	-0.16	0.02	0.21
kazakh	-0.16	0.10	0.36
russian	-0.31	-0.01	0.27
authatt	-0.09	0.03	0.14
trust.pres	0.07	0.17	0.27
trust.pres.na	-0.33	0.29	0.90
trust.rulep	0.19	0.30	0.42
trust.rulep.na	-0.18	0.35	0.90
private.sec	-0.43	-0.25	-0.07

	ζ		
	2.5%	50%	97.5%
(Intercept)	-3.87	2.59	9.16
urbanTRUE	-0.26	0.06	0.39
Tokayev.share	-4.43	-1.01	2.23
naz.share.2015	-5.70	0.16	6.10
protest.bfNaz	-9.58	-0.04	9.19
protest.afNaz	-4.15	-1.05	1.93

	ω^2		
	2.5%	50%	97.5%
omega2.1	0.30	0.41	0.56
omega2.2	0.30	0.43	0.60

	ψ^2		
	2.5%	50%	97.5%
psi2.1	0.26	0.38	0.54
psi2.2	0.22	0.32	0.47

Table K.2: Quantiles of the MCMC Draws for Endorsement Experiment Model Parameters (κ, δ, ζ, ω^2, and ψ^2).

L Convergence Diagnostics

	Item Parameters	
	Point est.	Upper C.I.
alpha.1	1.04	1.09
alpha.2	1.04	1.09
alpha.3	1.04	1.09
alpha.4	1.04	1.09
alpha.5	1.04	1.09
alpha.6	1.04	1.09
beta.1	1.01	1.03
beta.2	1.01	1.02
beta.3	1.01	1.03
beta.4	1.01	1.03
beta.5	1.00	1.01
beta.6	1.00	1.01

	λ	
	Point est.	Upper C.I.
female.1	1.02	1.05
age.1	1.08	1.17
income.1	1.06	1.14
income.na.1	1.07	1.15
highedu.1	1.01	1.02
kazakh.1	1.06	1.12
russian.1	1.04	1.09
authatt.1	1.01	1.03
trust.pres.1	1.03	1.06
trust.pres.na.1	1.04	1.08
trust.rulep.1	1.02	1.05
trust.rulep.na.1	1.03	1.07
private.sec.1	1.03	1.07
female.2	1.04	1.10
age.2	1.05	1.10
income.2	1.05	1.11
income.na.2	1.07	1.15
highedu.2	1.01	1.02
kazakh.2	1.06	1.14
russian.2	1.06	1.13
authatt.2	1.01	1.02
trust.pres.2	1.05	1.10
trust.pres.na.2	1.04	1.09
trust.rulep.2	1.02	1.05
trust.rulep.na.2	1.03	1.07
private.sec.2	1.03	1.08

Table L.1: Potential Scale Reduction Factor of the MCMC Draws for Endorsement Experiment Model Parameters (Item Parameters and λ).

	κ	
	Point est.	Upper C.I.
(Intercept).1	1.01	1.02
urbanTRUE.1	1.02	1.04
Tokayev.share.1	1.01	1.02
naz.share.2015.1	1.00	1.01
protest.bfNaz.1	1.00	1.00
protest.afNaz.1	1.01	1.02
(Intercept).2	1.01	1.02
urbanTRUE.2	1.01	1.02
Tokayev.share.2	1.00	1.01
naz.share.2015.2	1.00	1.00
protest.bfNaz.2	1.00	1.01
protest.afNaz.2	1.00	1.01

	δ	
	Point est.	Upper C.I.
female	1.02	1.05
age	1.02	1.05
income	1.04	1.08
income.na	1.05	1.10
highedu	1.01	1.01
kazakh	1.03	1.06
russian	1.03	1.07
authatt	1.01	1.02
trust.pres	1.02	1.05
trust.pres.na	1.03	1.06
trust.rulep	1.02	1.04
trust.rulep.na	1.03	1.07

	ζ	
	Point est.	Upper C.I.
private.sec	1.02	1.04
urbanTRUE	1.01	1.01
Tokayev.share	1.00	1.01
naz.share.2015	1.03	1.06
protest.bfNaz	1.00	1.01
protest.afNaz	1.00	1.01

Table L.2: Potential Scale Reduction Factor of the MCMC Draws for Endorsement Experiment Model Parameters (κ, δ, and ζ).

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