## Online Appendix

"Language Shapes Public Attitudes Toward Gender Equality"

This Online Appendix file contains additional information on the survey experiments, i.e., Studies 1 and 2 (OA.1), randomization and balance checks for Study 1 (OA.2), robustness tests for Study 1 (OA.3), the analysis probing into whether the language effects reveal pro-female bias or gender-blindness (OA.4), raw regression results for the analysis of boundary conditions (Study 1) (OA.5), randomization and balance checks for Study 2 (OA.6), and additional information on the cross-national analysis (Study 3) (OA.7).

## OA.1. Additional Information about Studies 1 and 2

Studies 1 and 2 were administered via telephone by TNS Emor, a leading Estonian survey firm with extensive experience conducting survey research for public and private sector clients, including the Eurobarometer Survey (since 2004). Our study's universe includes Estonian residents, ages 18-74, who can speak Estonian and Russian. The sampling frame consisted of randomly drawn landline and mobile phone numbers.

## OA.1.1 Language Manipulations

In both Study 1 and Study 2, our language manipulation was designed to set a distinct linguistic milieu by informing bilinguals that all subsequent instructions and questions would be in their assigned tongue. ${ }^{1}$ This effort was further bolstered by the fact that our bilingual interviewers were trained to strictly engage respondents in the assigned interview language. Specifically, our language treatment in Study 1 was worded as follows:
"Based on your answers to some of the previous questions, it appears that you are fluent in both Estonian and Russian. Therefore, we will let the computer program randomly select which language we continue this interview in [SHORT PAUSE].
[Estonian/Russian] was selected. This means that after this point, the rest of the interview will take place in [Estonian/Russian]. This is not a language test. We are simply interested in your opinions as an [Estonian/Russian] speaker."

In Study 2, the treatment followed the same interviewer script as above, except it nixed the last line, which stated: "We are simply interested in your opinions as an [Estonian/Russian] speaker." We made this change to eliminate any lingering concern that what we manipulated in Study 1 was language identity, rather than language of interview.

## OA.1.2 Translation and Interviewer Protocols

Our treatments and survey items I both studies were designed in (or adapted from) English by both authors, and then translated into Estonian and Russian by TNS Emor in collaboration with one author. Before fielding Study 1, we conducted an independent pre-test of the translated items, which failed to find any further language issues $(\mathrm{N}=88)$. We note, however, that we did not

[^0]seek to create translations that were exact in length, word for word. Such a strategy can yield translations of different and grammatically incorrect meanings, thus rendering any language comparisons useless. ${ }^{2}$ Instead, we prioritized the development of translated questions that meant the same thing to different language speakers, since detecting real opinion differences assumes that people share the same notion of what is being asked.

In the case of both Study 1 and 2, live bilingual interviewers conducted our phone surveys via CATI (i.e., computer-assisted telephone interviewing). Although TNS Emor employs male interviewers, the number of bilingual male interviewers at the time of our studies was too low ( $n=5$ ) for us to either (a) efficiently block our treatment on interviewer gender; or (b) statistically adjust our treatment effects for observed interviewer gender. Thus, we exclusively relied on female bilingual interviewers whose first language was Estonian ( $n=41$ ), which matches the language profile of most of our bilingual respondents. This choice means our respondents might feel obliged to give female interviewers pro-woman responses. But if social desirability bias is really present, randomization ensures that it will be equal across our language conditions. Moreover, if it has any effect, such pressure is likely to work against finding opinion differences between our interview groups. That is, because all respondents may feel obliged to give pro-women responses, any opinion gap between interviewees will be smaller than what would emerge in the absence of social desirability, thereby making our estimates conservative ones. Another possibility is that our interviewers lead male (female) respondents to express stronger anti-female opinions because they feel that women "should not" be working in visibly public roles, like interviewing survey respondents. If this is true, then respondents' gender should consistently moderate the effect of interview language on opinions. It does not (see Table OA.3.1).

## OA.1.2 Question Wording, Study 1

## Emotional women/Emotional men

[ITEMS 'A' AND 'B' IN RANDOMIZED ORDER]
a. Where would you rate men in general on a scale of 1 to 7 ? (where 1 indicates rational, 7 means emotional, and 4 indicates most men are not closer to one end or the other.
b. Where would you rate women in general on a scale of 1 to 7 ? (where 1 indicates rational, 7 means emotional, and 4 indicates most men are not closer to one end or the other.

## Paternity leave and Female Defense Minister

[ITEMS 'C' AND 'D' IN RANDOMIZED ORDER]
c. Under the current legislation, the father can take paid parental leave only after the baby is 2 months old. Do you agree or disagree that this policy should be changed so that the father could stay home with the baby and the mother could return to work from the day the baby is born.

1. Agree
2. Disagree

[^1]d. If the party that you normally like nominated a generally well-qualified woman to be Minister of Defense, would you support that choice?

1. Yes, I would support that choice.
2. No, I would oppose that choice.

## Female political recruitment and Female candidates: men's expense

Next, I am going to read you some proposed government efforts to address several social issues. After I read each one, please tell me whether you strongly disagree, somewhat disagree, somewhat agree, or strongly agree with each statement. What about...
[ITEMS 'E’ AND ‘F' IN RANDOMIZED ORDER]
e. Require political parties to reserve some space on their lists of candidates for women, even if they have to exclude some men.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree
f. And, what about: Recruit more women to top-level government positions.
5. Strongly disagree
6. Somewhat disagree
7. Somewhat agree
8. Strongly agree

## Buy sex, Child suffers, Hit husband, Men better

g. Under the current law, "pimping" is a criminal act but buying sex is not. Do you agree or disagree with the statement: Buying sex should also be made illegal.

1. Agree
2. Disagree
h. What about the statement: A preschool child is likely to suffer if his or her mother works.
3. Agree
4. Disagree
i. And what about the statement: It is sometimes justified for a woman to hit her husband.
5. Agree
6. Disagree
j. And what about the statement: On the whole, men make better political leaders than women do.
7. Agree
8. Disagree

## OA.1.3 Question Wording, Study 2

The wording of Paternity leave, Female Defense Minister, and Female political recruitment is the same as in Study 1. Here is the wording of the two additional questions that we included in Study 2.

## Run for office

iv. Next, I am going to read you some proposed government efforts to address several social issues. After I read each one, please tell me whether you strongly disagree, somewhat disagree, somewhat agree, or strongly agree with each statement. What about...
[RANDOMLY ASSIGN ONE ITEM 1 a or 1 b ]
1a. Calling on party leaders to encourage more women to run for office.
[OR]
1b. Calling on party leaders to encourage more women to run for office, a proposal that about $80 \%$ of the people in Estonia favor.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

## Suicide

Next, on a scale of 1 to 10 , please tell me the degree to which you think suicide is justifiable, where " 1 " is never justifiable and " 10 " is always justifiable.

1) Never justifiable
2) 
3) 
4) 
5) 
6) 
7) 
8) 
9) 
10) Always justifiable.

## OA.2. Randomization and Balance Checks, Study 1

We measured several pre-treatment covariates: respondents' age, education level, gender, ideology, first language learned, and preferred language of interview. Table OA.2.1 uses these covariates to predict our respondent's assignment to interview in Estonian or Russian. A Wald test shows we cannot reject the null that these covariates are simultaneously equal to zero ( $\chi^{2}=$ 8.50 , $\operatorname{Prob} \chi^{2}(8)>8.50=0.39$, which is consistent with the random assignment of interview language.

Table OA.2.1. Randomization Check: Language Manipulation is Unrelated to PreTreatment Covariates

|  | Estonian Interview (=1) |
| :--- | :---: |
| Education | 0.006 |
|  | $(0.037)$ |
| Female | -0.115 |
|  | $(0.076)$ |
| Age | -0.005 |
|  | $(0.003)$ |
| Left | -0.145 |
|  | $(0.126)$ |
| Right | -0.095 |
|  | $(0.100)$ |
| Center | -0.087 |
|  | $(0.092)$ |
| Russian first | 0.049 |
|  | $(0.121)$ |
| Prefer Russian | -0.082 |
|  | $(0.124)$ |
| Constant | 0.397 |
|  | $(0.214)$ |
| N | 1,200 |

Note: Entries are probit coefficients with standard errors in parentheses. An omnibus Wald test shows that one cannot reject the null that the covariates in Table OA.2.1 are simultaneously equal to zero, i.e., unassociated with the language manipulation $\left(\chi^{2}=8.50\right.$, $\left.\operatorname{Prob} \chi^{2}(8)>8.50=0.39\right)$.

The range and units of the covariates are as follows:

- Education runs from 1-Elementary to 5-University in single units.
- Female is a dummy variable where males are the omitted category.
- Age ranges from 18 to 74 in years.
- Left, Right, and Center are dummy variables with "don't knows" and "refusals" as the omitted category. Left indicates R placed themselves on the left side of a 10-point leftright ideology scale, while Right indicates R placed themselves on the right side of that same scale. Center indicates R placed themselves at the midpoint of this ideology scale. - Russian first indicates bilingual R learned Russian first.
- Prefer Russian indicates bilingual R prefers to interview in Russian.

We also examined whether these covariate distributions are similar across our experimental groups (i.e., balance check). As with any experiment, chance variations in these distributions are anticipated: one or two reliable differences here should not be surprising, especially given our high-powered study. Yet we should not find large and reliable imbalances across most of these covariates. Table OA.2.2 reveals that seven (7) out of eight (8) covariate distributions are statistically identical across our experimental groups. Only one reliable difference emerges ( $p<$ 0.05 , two-tailed), where the distribution of Russian interviewees is a bit older (median $=53$ years) than Estonian interviewees (median $=50$ ). Given our large sample, we interpret this gap as statistically significant but substantively negligible. There is also a small difference between the female proportion in the Estonian (59\%) and Russian (63\%) conditions that approaches marginal significance ( $p<0.103$ ). But the slightly greater female percentage emerges among Russian interviewees, who report their opinions in a gendered tongue. This implies that, if anything, it will be even harder to detect opinion differences between Estonian and Russian interviewees.

## Table OA.2.2. Distributions of Pre-Treatment Covariates (Balance Check)

|  | Estonian interview | Russian interview | Chi-square test | Wilcoxon-MannWhitney test |
| :---: | :---: | :---: | :---: | :---: |
| Education (median) | 3 | 3 | ${ }^{---}$ | $\begin{gathered} z=0.029 \\ \operatorname{Prob}>\|z\|=0.977 \end{gathered}$ |
| Female (\%) | 59\% | 63\% | $\begin{gathered} \chi^{2}(1)=2.66, p< \\ 0.103 \end{gathered}$ | Prob $\mid$ \|z $\mid$ 0.97 |
| Age (median) | 50 | 53 | --- | $\begin{gathered} z=1.981 \\ \operatorname{Prob}>\|z\|=0.048 \end{gathered}$ |
| Left (\%) | 10\% | 11\% | $\begin{aligned} & \chi^{2}(1)=0.641 \\ & p<0.423 \end{aligned}$ | --- |
| Right (\%) | 24\% | 24\% | $\chi^{\chi^{2}}(1)=0.065$ | --- |
| Center (\%) Russian first (\%) | $26 \%$ $38 \%$ | $27 \%$ $38 \%$ | $\begin{aligned} & \chi^{2^{2}}(1)=0.176 \\ & p<0.675 \end{aligned}$ | --- |
| Russian first (\%) | 38\% | 38\% | $\begin{gathered} \chi^{2}(1)=0.083 \\ p<0.772 \end{gathered}$ | --- |
| Prefer Russian (\%) | 31\% | 31\% | $\begin{gathered} \chi^{\chi^{2}}(1)=0.024 \\ p<0.876 \end{gathered}$ | --- |

Note: The differences in statistical tests performed reflect the nature of the covariates under analysis (e.g., dichotomous versus interval). All significance tests are two-tailed.

## OA.3. Robustness Tests, Study 1

Table OA.3.1. Estimated Treatment Effects With Covariates Included

| A. | Emotional Women (relative) | Emotional Women (single) | Emotional Men (single) | Paternity Leave | Female <br> Defense <br> Minister | Female <br> Political Recruit. | Females at Men's Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Estonian interview | $\begin{gathered} -0.19^{\dagger} \\ (0.11) \end{gathered}$ | $\begin{gathered} -0.22^{* *} \\ (0.09) \end{gathered}$ | $\begin{aligned} & -0.02 \\ & (0.08) \end{aligned}$ | $\begin{gathered} 0.18 * * \\ (0.08) \end{gathered}$ | $\begin{gathered} 0.20^{* *} \\ (0.08) \end{gathered}$ | $\begin{gathered} 0.15 * * \\ (0.06) \end{gathered}$ | $\begin{gathered} -0.14^{* *} \\ (0.06) \end{gathered}$ |
| Age | $\begin{aligned} & -0.45^{*} \\ & (0.24) \end{aligned}$ | $\begin{gathered} -0.50^{* *} \\ (0.18) \end{gathered}$ | $\begin{gathered} -0.03 \\ (0.17) \end{gathered}$ | $\begin{gathered} -0.82 * * \\ (0.16) \end{gathered}$ | $\begin{gathered} -0.76^{* *} \\ (0.16) \end{gathered}$ | $\begin{gathered} 0.07 \\ (0.12) \end{gathered}$ | $\begin{gathered} 0.00 \\ (0.00) \end{gathered}$ |
| Education | $\begin{gathered} -0.69^{* *} \\ (0.24) \end{gathered}$ | $\begin{gathered} 0.11 \\ (0.17) \end{gathered}$ | $\begin{gathered} -0.58^{* *} \\ (0.16) \end{gathered}$ | $\begin{gathered} -0.32 * * \\ (0.15) \end{gathered}$ | $\begin{gathered} 0.48 * * \\ (0.16) \end{gathered}$ | $\begin{gathered} -0.47 * * \\ (0.13) \end{gathered}$ | $\begin{gathered} -0.15^{* *} \\ (0.03) \end{gathered}$ |
| Female | $\begin{gathered} 0.44^{* *} \\ (0.12) \end{gathered}$ | $\begin{gathered} 0.13 \\ (0.09) \end{gathered}$ | $\begin{gathered} -0.29 * * \\ (0.08) \end{gathered}$ | $\begin{aligned} & -0.04 \\ & (0.08) \end{aligned}$ | $\begin{aligned} & -0.06 \\ & (0.08) \end{aligned}$ | $\begin{gathered} 0.24 * * \\ (0.07) \end{gathered}$ | $\begin{gathered} 0.18 * * \\ (0.07) \end{gathered}$ |
| Constant | $\begin{gathered} 0.85^{* *} \\ (0.25) \end{gathered}$ | $\begin{gathered} 4.94 * * \\ (0.18) \end{gathered}$ | $\begin{gathered} 4.07 * * \\ (0.17) \end{gathered}$ | $\begin{gathered} 0.35^{*} * \\ (0.16) \end{gathered}$ | $\begin{gathered} 0.58 * * \\ (0.16) \end{gathered}$ | --- | --- |
| N | 1,153 | 1,165 | 1,158 | 1,140 | 1,156 | 1,154 | 1,143 |
| B. | Buying Sex | Child <br> Suffers | Hit Husband | Men <br> Better <br> Leaders |  |  |  |
| Estonian interview | $\begin{gathered} -0.05 \\ (0.08) \end{gathered}$ | $\begin{gathered} 0.07 \\ (0.08) \end{gathered}$ | $\begin{gathered} 0.01 \\ (0.08) \end{gathered}$ | $\begin{aligned} & -0.05 \\ & (0.08) \end{aligned}$ |  |  |  |
| Age | $\begin{gathered} 0.33 * * \\ (0.16) \end{gathered}$ | $\begin{gathered} 0.50 * * \\ (0.15) \end{gathered}$ | $\begin{gathered} -0.09 \\ (0.17) \end{gathered}$ | $\begin{gathered} 0.50 * * \\ (.016) \end{gathered}$ |  |  |  |
| Education | $\begin{gathered} -0.35^{* *} \\ (0.16) \end{gathered}$ | $\begin{gathered} -0.77 * * \\ (0.14) \end{gathered}$ | $\begin{gathered} -0.58^{* *} \\ (0.17) \end{gathered}$ | $\begin{gathered} 0.17 \\ (0.15) \end{gathered}$ |  |  |  |
| Female | $\begin{gathered} 0.55^{*} * \\ (0.08) \end{gathered}$ | $\begin{gathered} 0.07 \\ (0.08) \end{gathered}$ | $\begin{gathered} -0.26^{* *} \\ (0.09) \end{gathered}$ | $\begin{gathered} 0.04 \\ (0.08) \end{gathered}$ |  |  |  |
| Constant | $\begin{gathered} 0.06 \\ (0.16) \end{gathered}$ | $\begin{aligned} & 0.28^{*} \\ & (0.16) \end{aligned}$ | $\begin{aligned} & -0.20 \\ & (0.17) \end{aligned}$ | $\begin{gathered} -0.75 * * \\ (0.16) \end{gathered}$ |  |  |  |
| N | 1,071 | 1,130 | 1,160 | 1,135 |  |  |  |

Note: All covariates run from 0 to 1 . Female is a dummy variable. ${ }^{* *} p<0.05 ;{ }^{*} p<0.10 ; \dagger p<0.11$, two-tailed.

Table OA.3.2. Estimated Language Effects Adjusted for Respondents' Preferred Interview Language

|  | Emotional women: Relative rating (OLS) | Paternity Leave (Probit) | Female <br> Defense <br> Minister (Probit) | Female Political Recruitment (Ordered Probit) | Female Candidates: Men's Expense (Ordered Probit) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Estonian | -0.20* | 0.21** | 0.22** | 0.14** | -0.15** |
| Interview | (0.12) | (0.08) | (0.08) | (0.06) | (0.06) |
| Prefer to interview in Russian | $\begin{gathered} 0.27 * * \\ (0.13) \end{gathered}$ | $\begin{gathered} 0.21 * * \\ (0.08) \end{gathered}$ | $\begin{gathered} -0.24^{* *} \\ (0.08) \end{gathered}$ | $\begin{gathered} -0.002 \\ (0.07) \end{gathered}$ | $\begin{gathered} 0.22 * * \\ (0.07) \end{gathered}$ |
| Constant | $\begin{gathered} 1.26^{* *} \\ (0.10) \end{gathered}$ | $\begin{gathered} -0.45^{* *} \\ (0.06) \end{gathered}$ | $\begin{gathered} 0.48 * * \\ (0.06) \end{gathered}$ | --- | --- |
| N | 1,153 | 1,140 | 1,156 | 1,154 | 1,143 |

Note: Prefer to interview in Russian is a dichotomous variable, with 0 indicating a preference for interviewing in Estonian. ${ }^{* *} p<0.05 * p<0.10$, two-tailed.

Table OA.3.3. The Effect of Interview Language is Not Moderated by Being Male

|  | Emotional <br> women | Paternity <br> Leave | Female <br> Defense <br> Minister | Female <br> Political <br> Recruitment | Females <br> at Men's <br> Expense | Buying Sex <br> Illegal | Child <br> Suffers | Hit <br> Husband | Men Better <br> Leaders |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Estonian | -0.16 | 0.12 | $0.32^{*}$ | 0.11 | $-0.15^{*}$ | -0.05 | 0.07 | -0.02 | -0.08 |
| interview | $(0.16)$ | $(0.10)$ | $(0.10)$ | $(.08)$ | $(0.08)$ | $(0.10)$ | $(0.10)$ | $(0.11)$ | $(0.10)$ |
| Male | $-0.41^{*}$ | -0.01 | $0.23^{*}$ | $-0.29^{*}$ | $-0.18^{\dagger}$ | $-0.54^{*}$ | -0.04 | $0.24^{*}$ | -0.10 |
|  | $(0.18)$ | $(0.11)$ | $(0.11)$ | $(0.10)$ | $(0.10)$ | $(0.12)$ | $(0.11)$ | $(0.12)$ | $(0.11)$ |
| Estonian x | -0.05 | 0.20 | $-0.28^{\dagger}$ | 0.12 | 0.02 | -0.02 | -0.04 | 0.08 | 0.06 |
| Male | $(0.24)$ | $(0.16)$ | $(0.16)$ | $(0.12)$ | $(0.13)$ | $(0.16)$ | $(0.15)$ | $(0.16)$ | $(0.16)$ |
| Constant | $1.50^{*}$ | $-0.37^{*}$ | $0.32^{*}$ | --- | --- | $0.55^{*}$ | 0.10 | $-0.91^{*}$ | $-0.28^{*}$ |
|  | $(0.11)$ | $(0.07)$ | $(0.07)$ |  |  | $(.07)$ | $(.07)$ | $(0.08)$ | $(0.07)$ |
| N |  |  |  |  |  |  |  | 1,130 | 1,160 |

Note: Emotional women is estimated via OLS. Models where constant is absent are estimated via ordered probit. All other models are estimated via probit.
${ }^{*} p<0.05$, two-tailed; ${ }^{\dagger} p<0.10$, two-tailed.

## OA.4. Gender-blindness or Pro-female Bias?

Speaking a gender-less language appears to have a liberalizing effect on political attitudes toward gender equality, especially when social norms do not provide crisp and clear guidance on a matter. We claim that the mechanism responsible for these effects is the greater parity between gendered objects sensed by speakers of a gender-less tongue; let's call this mechanism "genderblindness." But an alternative account is plausible: speakers of a gender-less language may be altogether more pro-female so that the improvement in gender parity is achieved at the expense of men; let's call this mechanism "pro-female bias." Clarifying which of these mechanisms is behind our observed effects is critical because it allows us to say whether greater gender balance is reached because the language makes speakers gender-blind or because it makes them see the female gender more positively than the male. The former, we believe, is a more accurate reflection of true gender equality, since female strides in society and politics are unrelated (or weakly related) to men's fortunes in these areas. The latter, in contrast, is a zero-sum bargain where female gains entail male displacement. To examine which of these mechanisms better explains the pattern of language effects we have uncovered, we return to two sets of dependent variables that we designed precisely to disentangle these alternatives.

The first set contains the rating of men and women as stereotypically emotional rather than rational. Recall that in their original format, respondents answered these items individually, sequentially, and - most importantly-in random order (variable names Emotional women: single rating and Emotional men: single rating). We have here, then, an opportunity to determine how respondents independently rated men and women, without the contamination of order effects. This allows us a strong test of the degree to which people's view of women is linked to their perception of men.

If the mechanism behind our observed language effects is "gender-blindness," then a more positive evaluation of females should be unrelated to how respondents interviewing in a gender-less language judge men. Empirically, this suggests a negative and reliable coefficient for the relationship between interviewing in Estonian and ratings of women "emotional," yet a small and statistically insignificant coefficient for ratings of men on this stereotype dimension.
However, if "pro-female bias" is the correct mechanism then Estonian interviewees should judge women more positively on this stereotype dimension while rating men more negatively. This implies that Estonian interviewees are rating women as less stereotypically emotional while rating men as more stereotypically rational. Hence, we should observe a reliable negative and positive coefficient, respectively, which would reflect the relationship between interviewing in Estonian and stereotype judgments of females and males. Of course, one might argue that rating males as rational is not really a negative judgment; that it might, in fact, be more of a compliment. Our view is that judging men as more rational suggests, by implication, that they are detached, colder, and unsympathetic-all negative attributes.

The relevant results for this test are reported in Table OA4.1, where the single ratings of women and men as more emotional than rational are regressed on the language of interview. What we find is evidence that supports our proposed mechanism, i.e., "gender-blindness." More precisely, respondents interviewing in Estonian judged women to be significantly less emotional than those interviewing in Russian - an evaluation, we emphasize, that is uncontaminated by what they think of men, since these ratings were answered in randomized order. But when it comes to bilinguals' rating of men, there is no reliable relationship between interviewing in

Estonian and judgments of males on this stereotype dimension. We view these results as incompatible with the contention that perceiving greater gender parity comes at men's expense.

Table OA.4.1 The Effect of Genderless Language: Stereotype Ratings

|  | Model 1: <br> Emotional women: single rating <br> (OLS) | Model 2: <br> Emotional men: single ratin (OLS) |
| :---: | :---: | :---: |
| Estonian interview | $\begin{gathered} -0.21^{* *} \\ (0.09) \end{gathered}$ | $\begin{gathered} 0.00 \\ (0.08) \end{gathered}$ |
| Constant | $\begin{gathered} 4.81 * * * \\ (0.06) \end{gathered}$ | $\begin{gathered} 3.46^{* * *} \\ (0.06) \end{gathered}$ |
| N | 1,165 | 1,158 |
| Note: Dependent variables are indicated in column headings. ${ }^{* * *} p<0.01,{ }^{* *} p<0.05,{ }^{*} p<0.10$, two-tailed tests. <br> We reach a similar conclusion by exploring two other dependent variables that are more expressly political: Female political recruitment and Female candidates: men's expense. These questions were also asked independently, sequentially, and in random order. If the "genderblindness" mechanism is correct, we should observe a positive and reliable coefficient for the first item-increased female political recruitment-but a negative and reliable coefficient for the second item - making room for female candidates by displacing men. Table OA.4.2 presents the raw results and Figure OA.4.1 graphs the relevant predicted probabilities of strong support for these proposals for both Estonian and Russian interviewees. While respondents interviewing in Estonian are more supportive of increasing the political recruitment of women to top political posts (predicted probability of strongly agreeing for respondents interviewing in Estonian: 0.28, in Russian: 0.23 ; $\mathrm{FD}=0.05, \mathrm{CI}: 0.01,0.09$ ), they are less supportive of increasing space for women on party candidate lists if this move comes at males' expense (predicted probability of strongly agreeing for respondents interviewing in Estonian: 0.14 , in Russian: $0.18 ; \mathrm{FD}=-0.04$, CI: $-0.07,-0.01$ ). Thus, our results consistently show that the effect of speaking a gender-less tongue stems from a de-emphasis on distinctions between women and men, rather than promoting females or devaluing males. |  |  |
|  |  |  |

Table OA.4.2 The Effect of Genderless Language: Parity at Men's Expense?

|  | Female political recruitment <br> (Ordered Probit) | Female candidates: men's expense <br> (Ordered probit) |
| :---: | :---: | :---: |
| Estonian interview | $0.14^{* *}$ | $-0.15^{* *}$ |
|  | $(0.06)$ | $(0.06)$ |
| Constant | --- | --- |
| N | 1,154 | 1,143 |

Figure OA.4.1 Probability of Supporting Increased Female Political Recruitment versus Political Parties Reserving Space for Women on Candidate Lists, Even if Men Are Excluded


## OA.5. Boundary Condition, Study 1

Table OA.5. Interview Language Has Null Effects on Items With Clearer Social Norms

|  | Buying sex | Child suffers | Hit husband | Men better |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Estonian | -0.07 | 0.05 | 0.03 | -0.06 |
| interview | $(0.08)$ | $(0.07)$ | $(0.08)$ | $(0.08)$ |
|  |  |  |  |  |
| Constant | $0.34^{*}$ | $(0.09$ | $-0.81^{*}$ | $-0.31^{*}$ |
|  | $(0.06)$ | 1,130 | $(0.06)$ | $(0.05)$ |
| N | 1,071 | 1,160 | 1,1135 |  |
| Note: Estimates are probit coefficients with standard errors in parentheses. ${ }^{*} p<0.05$, two-tailed tests |  |  |  |  |

## OA.6. Randomization and Balance Checks, Study 2

Table OA.6.1. Randomization Check: Language Manipulation is Unrelated to PreTreatment Covariates, Study 2

|  | Estonian Interview (=1) |
| :--- | :---: |
| Education | -0.033 |
|  | $(0.165)$ |
| Female | -0.024 |
|  | $(0.160)$ |
| Age | -0.013 |
|  | $(0.006)$ |
| Russian first | 0.149 |
|  | $(0.276)$ |
| Prefer Russian | -0.209 |
|  | $(0.292)$ |
| Constant | 0.606 |
|  | $(0.376)$ |
| N | 1,200 |

Note: Labels in left-most column denote names of all pre-treatment covariates collected for Study 2. Entries are probit coefficients with standard errors in parentheses. An omnibus Wald test shows that one cannot reject the null that the covariates in Table OA.2.1 are simultaneously equal to zero, i.e., unassociated with the language manipulation $\left(\chi^{2}=5.07\right.$, $\operatorname{Prob} \chi^{2}(5)>5.07=0.41$, two-tailed).

The range and units of the covariates are as follows:

- Education is a dichotomous variable where ' 1 ' indicates R completed some college or higher and ' 0 ' indicates R completed secondary school or less.
- Female is a dummy variable where males are the omitted category.
- Age ranges from 22 to 76 in years.
- Russian first indicates bilingual R learned Russian first.
- Prefer Russian indicates bilingual R prefers to interview in Russian.

Table OA.6.2. Distributions of Pre-Treatment Covariates (Balance Check), Study 2

|  | Estonian <br> interview | Russian <br> interview | Chi-square test | Wilcoxon-Mann- <br> Whitney test |
| :--- | :---: | :---: | :---: | :---: |
| Education (\%) | $41 \%$ | $40 \%$ | $\chi^{2}(1)=0.017$ | --- |
| Female (\%) | $53 \%$ | $54 \%$ | $p<0.90$ <br> $\chi^{2}(1)=0.060$ <br> $p<0.81$ |  |
| Age (median) | 54 | 57 | --- | $\mathrm{z}=1.968$ <br> Prob $>\|\mathrm{z}\|=0.049$ |
| Russian first (\%) | $39 \%$ | $37 \%$ | $\chi^{2}(1)=0.090$ <br> $p<0.764$ <br> $\chi^{2}(1)=0.007$ <br> $p<0.935$ | --- |
| Prefer Russian (\%) | $31 \%$ | $32 \%$ | --- |  |

Note: The differences in statistical tests performed reflect the nature of the covariates under analysis (e.g., dichotomous versus interval). All significance tests are two-tailed.

## OA 7: Additional Information Related to Study 3

## Variables included in the analysis

Women jobs (World Values Study item C001)
"Do you agree, disagree or neither agree nor disagree with the following statements?: "When jobs are scarce, men should have more right to a job than women""
$1=$ disagree or neither agree nor disagree
$0=$ agree
Women political leaders (D059)
"For each of the following statements I read out, can you tell me how strongly you agree or disagree with each. Do you strongly agree, agree, disagree, or strongly disagree?: "On the whole, men make better political leaders than women do""
$1=$ strongly agreed
$2=$ agreed
3=disagreed
$4=$ strongly disagreed
University for girls (D060)
"For each of the following statements I read out, can you tell me how strongly you agree or disagree with each. Do you strongly agree, agree, disagree, or strongly disagree?: "University is more important for a boy than for a girl""
1=strongly agreed
$2=$ agreed
3=disagreed
$4=$ strongly disagreed
Women business executives (D078)
"For each of the following statements I read out, can you tell me how strongly you agree or disagree with each. Do you strongly agree, agree, disagree, or strongly disagree?: "On the whole, men make better business executives than women do""
$1=$ strongly agreed
$2=$ agreed
3=disagreed
$4=$ strongly disagreed
Language spoken at home (G016)
This variable was used to identify respondent's language.
Sex (X001)
A binary variable indicating whether the respondent is female.
Age (X003)
Respondent's age in years.
Married (X007)

A binary variable indicating whether the respondent is married.
Education (X025)
Records the highest level of education for the respondent (8 categories).
Unemployed (X028)
A binary variable indicating whether the respondent is unemployed.
Income (X047)
Measures respondent's income decile.
Democracy is measured using the "polity2" variable from the Polity IV Project. The variable ranges from -10 (most authoritarian) to 10 (most democratic).

Genderless language is coded from the World Atlas of Language Structures (WALS) (Dryer and Haspelmath 2013), using their indicator "44A: Gender Distinctions in Independent Personal Pronouns." WALS codes each language into one of the following six categories: (1) in 3rd person +1 st and/or 2 nd person; (2) 3rd person only, but also non-singular; (3) 3rd person singular only; (4) 1 st or 2 nd person but not $3^{\text {rd }}$; (5) 3rd person non-singular only; (6) No gender distinctions. The binary variable genderless language used in main text is coded " 0 " if $44 \mathrm{~A}=$ " 1 " ("strongly gendered") and " 1 " ("non-gendered") otherwise. A categorical version of the same variable, referred to in footnote 27 of main text and used in the alternative analyses presented in Table SI.8.2 below was coded as follows: " 2 " if $44 \mathrm{~A}=6$ ("non-gendered"); " 1 " if $44 \mathrm{~A}=2,3,4$, or 5 ("weakly gendered"); " 0 " if $44 \mathrm{~A}=1$ ("strongly gendered")

Table OA.7.1: Descriptive Statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Women jobs | 176,939 | 0.60 | 0.49 | 0 | 1 |
| University for girls | 172,827 | 2.96 | 0.92 | 1 | 4 |
| Women business executives | 100,373 | 2.62 | 0.97 | 1 | 4 |
| Women political leaders | 168,902 | 2.41 | 0.99 | 1 | 4 |
| Gender equal attitudes | 95,862 | 0.00 | 1.01 | -2.16 | 1.62 |
| Genderless language | 180,447 | 0.63 | 0.48 | 0 | 1 |
| Genderless language (categ.) |  |  |  |  |  |
| Weakly gendered | 180,447 | 0.43 | 0.49 | 0 | 1 |
|  | Genderless | 180,447 | 0.20 | 0.40 | 0 |
| Sex | 180,270 | 0.52 | 0.50 | 0 | 1 |
| Age | 180,067 | 41.28 | 16.36 | 15 | 99 |
| Unemployed | 174,585 | 0.09 | 0.28 | 0 | 1 |
| Income | 165,469 | 4.65 | 2.31 | 1 | 10 |
| Education | 168,054 | 4.75 | 2.23 | 1 | 8 |
| Married | 180,006 | 0.58 | 0.49 | 0 | 1 |
| Democracy | 174,642 | 4.29 | 6.41 | -10 | 10 |

Note: The sample size varies significantly across the different models. These descriptive statistics were calculated from the cases used in the model with the largest N (Women Jobs Model 1 in Table 3 of the main text).

Table OA.7.2 The Effect of Genderless Language on Opinions Toward Gender Equality, World Values Survey 1995-2014, Categorical Coding of Genderedness

|  | Women Polit. <br> Leader | Univ. for <br> Girls | Women <br> Busin. Exec. | Women <br> Jobs | Gender Equal <br> Attitudes |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Weakly gendered | $0.186^{* * *}$ | $0.227^{* * *}$ | $0.126^{*}$ | $0.388^{* * *}$ | $0.191^{* *}$ |
| language | $(0.063)$ | $(0.077)$ | $(0.069)$ | $(0.109)$ | $(0.089)$ |
| Genderless | $0.176^{* *}$ | $0.409^{* * *}$ | $0.113^{* *}$ | $0.534^{* * *}$ | $0.258^{* * *}$ |
| language | $(0.080)$ | $(0.077)$ | $(0.052)$ | $(0.109)$ | $(0.071)$ |
| Sex |  |  |  |  |  |
|  | $0.281^{* * *}$ | $0.233^{* * *}$ | $0.323^{* * *}$ | $0.551^{* * *}$ | $0.357^{* * *}$ |
| Age | $(0.014)$ | $(0.018)$ | $(0.0217)$ | $(0.041)$ | $(0.024)$ |
|  | $-0.002^{* * *}$ | $-0.002^{* * *}$ | $-0.002^{* * *}$ | - | $0.007^{* * *}$ |
| Unemployed | $(0.000)$ | $(0.001)$ | $(0.001)$ | $(0.002)$ | $\left(0.002^{* * *}\right.$ |
|  | $0.025^{* *}$ | $-0.027^{* * *}$ | 0.014 | $-0.075^{* *}$ | -0.001 |
| Married | $(0.011)$ | $(0.010)$ | $(0.014)$ | $(0.035)$ | $(0.015)$ |
|  | $-0.026^{* * *}$ | -0.009 | -0.014 | - | $-0.030^{* *}$ |
| Democracy | $(0.009)$ | $(0.008)$ | $(0.010)$ | $(0.031)$ | $(0.012)$ |
|  | 0.002 | 0.010 | 0.005 | -0.010 | -0.017 |
| Country FE | $(0.010)$ | $(0.010)$ | $(0.017)$ | $(0.014)$ | $(0.020)$ |
| Wave FE | YES | YES | YES | YES | YES |
| Education | YES | YES | YES | YES | YES |
| Income | YES | YES | YES | YES | YES |
| Constant | YES | YES | YES | YES | YES |
|  | $1.971^{* * *}$ | $2.432^{* * *}$ | $2.261^{* * *}$ | -0.296 | $-0.359^{* * *}$ |
| N | $(0.078)$ | $(0.073)$ | $(0.097)$ | $(0.218)$ | $(0.111)$ |
| N (countries) |  |  |  |  |  |
| R-squared | 135,827 | 138,761 | 83,324 | 141,632 | 79,937 |

Note: Dependent variables are indicated in column headings. Robust country-clustered standard errors in parentheses. ${ }^{* * *} p<0.01,{ }^{* *} p<0.05,{ }^{*} p<0.1$


[^0]:    ${ }^{1}$ Marian, Viorica and Ulirc Neisser. 2000. "Language-Dependent Recall of Autobiographical Memories." Journal of Experimental Psychology: General 129(3): 361-368.

[^1]:    ${ }^{2}$ Jakobson, Roman. 1966. "On Linguistic Aspects of Translation." In R. A. Brower (Ed.) On Translation. New York: Oxford University Press. Pp. 232-239.

