Voicing Politics:
How Language Shapes Public Opinion

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Does Language Affect What We Think?

- Controversial
  - Sapir-Whorf hypothesis as *deterministic*
- Narrow evidentiary record
  - Small-scale laboratory studies with convenience samples
- For political scientists: no sense of how language could affect political opinions

Bringing Language Into Political Science

- "Thinking-for-speaking" shapes what comes to the "top-of-the-head."
  - Tongues vary in what they attend to and encode (Slobin 1996):
    - E.g., genderless and gendered tongues: the latter will activate this consideration more strongly, thus making it more salient.

How Does Language Affect Political Thinking?

- Belief-sampling models of survey response are silent about language (e.g., Zaller 1992; Schwarz 1994 Tourangeau et al. 2000; Lodge and Taber 2013).
  - But they have implications for language effects.
    - Activation of considerations is important.
    - Attitudes are mostly constructed on the spot.
    - Attitudes depend on what's at the "top-of-the-head."

Enhancing External Validity

- Our evidence comes from these and other studies
  - **Study 1: Survey experiment with Estonian/Russian bilinguals (N=1,200). Conducted from May 26 to June 12, 2014.**
  - Study 2: Survey experiment with Estonian/Russian bilinguals (N=262). Conducted from March 22 to April 10, 2016.
  - Study 3: Cross-national analysis of survey data (N≈170,000 across 90 countries). World Values Survey, Waves 3-6 (1995-2014).
  - **Study 4: Survey experiments on gendered pronouns with Swedish speakers**.
  - Study 5: Survey experiment with U.S. Latino bilinguals on candidate evaluation.

Design of Study 1

- Randomly assign Estonian-Russian bilingual adults to interview in Estonian or Russian.

- After reporting their native language, potential respondents were asked about their fluency in it.
    - E.g., "In your opinion, how well do you know Estonian," where the response options are: 1) Do not know the language at all; 2) Can understand a little, but cannot speak; 3) Can understand and can speak a little; 4) Can understand, speak, and write; and 5) Fluent.
    - The same question was also asked of their second language.
    - Our respondents are bilinguals who answered "4" or "5" on both items.

The Manipulation

"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."

- This has been done before with success (Pérez 2016).
- It is consistent with prior lab work on maintaining a consistent linguistic milieu (e.g., Marian and Neisser 2000).

Stereotype Items

- Where would you rate **[men/women]** in general on a scale of 1 to 7? (where 1 indicates rational, 7 means emotional, and 4 indicates most **[men/women]** are not closer to one end or the other).
    - Two items, asked in random order.
    - We analyze them individually…as *Emotional women* and *Emotional men*.
    - …and as a differenced measure, i.e., *Emotional women (relative)* (cf. Kinder and Kam 2009).

Preferences about Female Political Participation

Female Defense Minister:

"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.
0. No, I would oppose that choice.

Preferences about Female Political Participation

"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… "

Female political recruitment:

"Recruit more women to top-level government positions."

- Both run from 1) Strongly disagree; 2) Somewhat disagree; 3) Somewhat agree; and 4) Strongly agree

Policies Aimed at Remedying Gender Inequality

Paternity leave:

- "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."

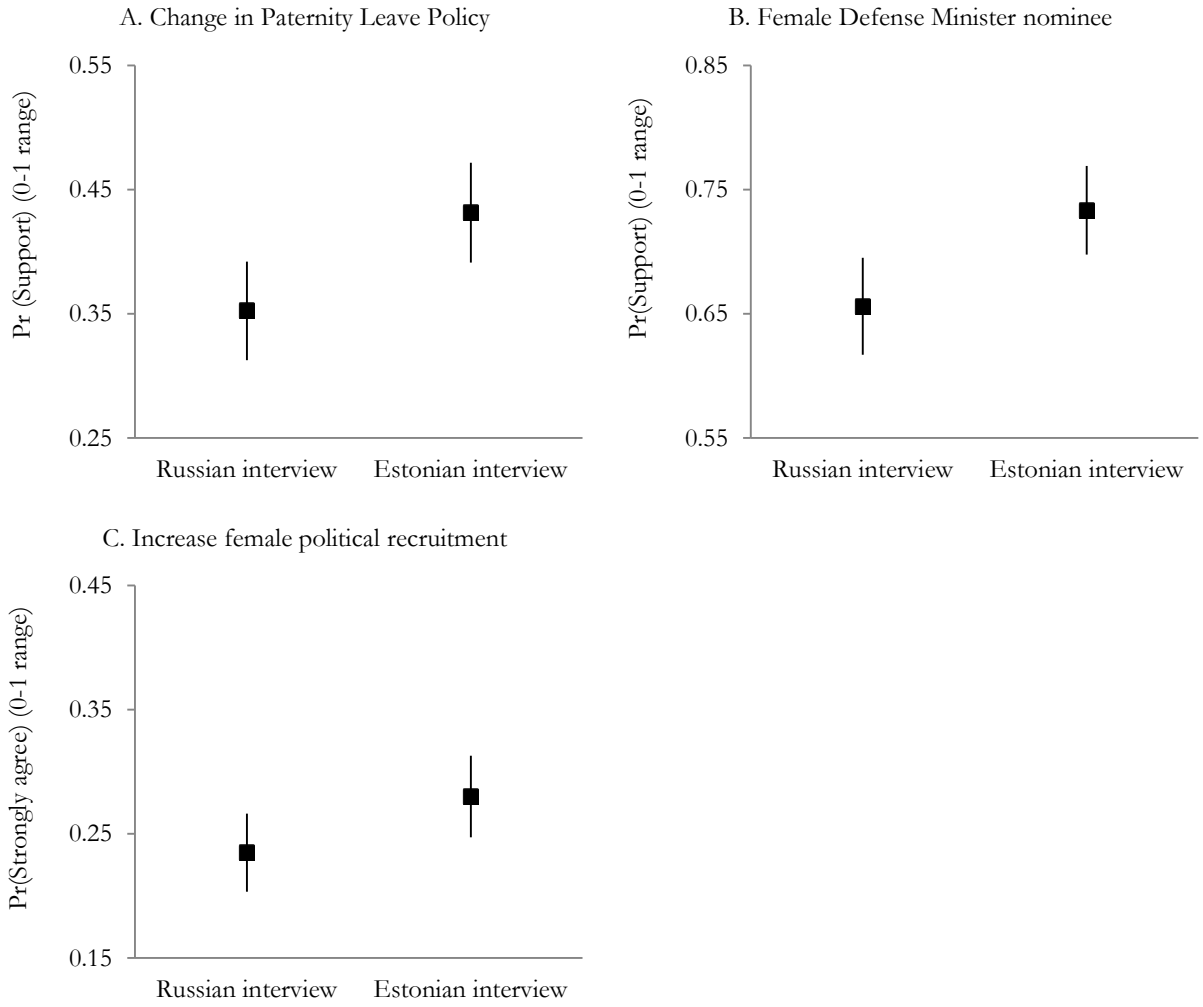
  1. Agree
  0. Disagree

Table 1. The Effect of Genderless Language on Opinions Toward Gender Equality

	Model 1: Emotional women: relative rating (OLS)	**Model 2: Paternity Leave** (Probit)	**Model 3: Female Defense Minister** (Probit)	**Model 4: Female political recruitment** (Ordered Probit)
Estonian interview	-0.20*	0.21**	0.22**	0.14**
	(0.12)	(0.08)	(0.08)	(0.06)
Constant	1.34***	-0.38***	0.40***	---
	(0.09)	(0.05)	(0.05)	
N	1,153	1,140	1,156	1,154

Note: Dependent variables are indicated in column headings. ***p < 0.01, **p <0 .05, *p <0.10, two-tailed tests.

Figure 1. Probability of Support for Political Efforts Addressing Gender Inequality



Study 1's Limitations

- We saw language effect once—can we see it again?
  - Replication, replication.
- When are language effects less likely?
- What about a placebo item?
  - Ensure effect of language does not show up where it's not supposed to.

A Trio of Swedish Experiments

Experiments 1 (N=315) and 2(N=1,840):

-Mediation

-Evaluate androgynous character (*Han*, *Hon*, or *Hen)*.

-Sentence completion task.

-Political and social outcomes.

Experiment 3 (N=1,200): automaticity of effects.

-Character rating.

-Sentence completion task under (no) time constraint.

Manipulation: *Han*, *Hon*, and *Hen*

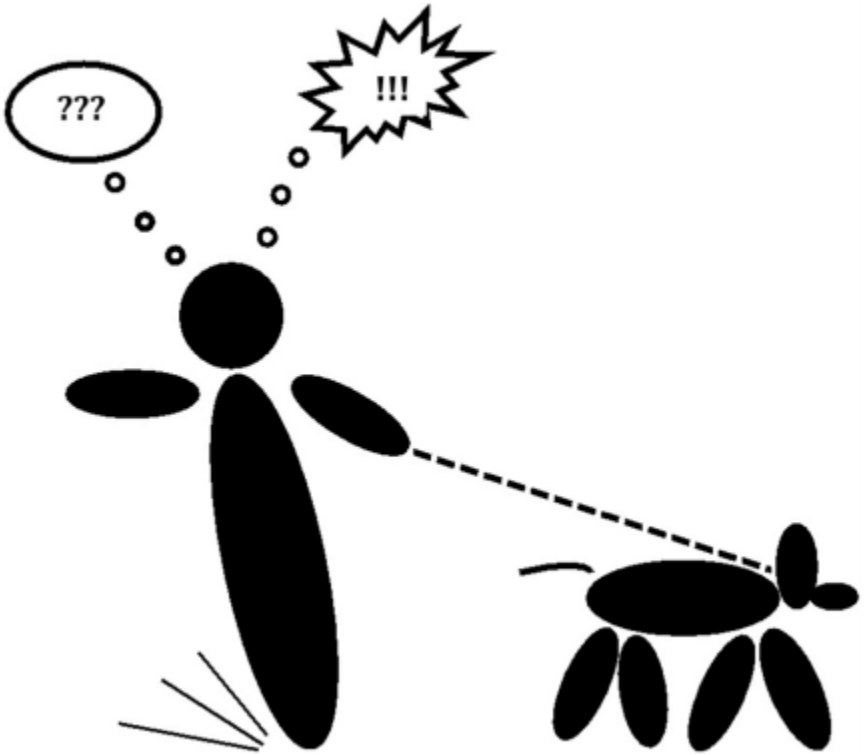


Fig. 1. Image used in experimental conditions.

Post-Treatment: Sentence Completion (Mediator)

to use your creativity and composition skills. Here is a beginning of a story: 'Today, I met a person who is interested in running for a political office. This person is...'" Subjects were then asked to "complete the story by giving this person a first name and describing in 2 sentences what happens next." Replies were coded as "0" if subjects provide a male name and "1" for all others. Picking a

Outcomes

- **Political knowledge:** name a "current member of Riksdag."
- **Pro-female preferences:** "Increase the number of (wo)men to the Riksdag Committee on Defense." (1-5, strongly agree)
- **Favorability ratings:** transgender individuals (1-7, very favorable)
- **Social acceptance:** Fewer vs. more gays and lesbians should be considered for ministerial positions (1-7, strongly support).

Note: Outcomes are similar across Experiment 1 and 2 (Sweden).

Results: Experiment 1

Table 1. The mediated influence of gender pronoun use on opinions about gender equality (study 1)

	Effects on mediator	Mediator's influence on political attitudes			
	1. Imagine a Nonmale	2. Knowledge of Female Politicians	3. Profemale Preferences	4. Positive Feelings: Gays	5. Social Acceptance: Gays
Gender-neutral pronoun	0.361 (0.180)*	0.392 (0.165)*	0.019 (0.008)*	0.268 (0.083)*	0.352 (0.086)*
Feminine pronoun	0.465 (0.182)*	—	—	—	—
CFI/TLI	0.961/0.940	—	—	—	—
RMSEA (90% CI)	0.040 (0.020 to 0.058)	—	—	—	—
N	315	315	315	315	315

Table entries are probit coefficients with SEs from a structural equation model (SEM) estimated in Mplus (v.8). Except for Profemale Preferences, all outcomes are modeled as latent variables (see text). Variances of latent variables are fixed to 1.0 to identify the model, thus setting their coefficients' metric to SD units. Profemale Preferences is on a 0 to 1 interval, which sets its coefficient's metric to percentage points. See *SI Appendix*, section 3 for formal tests of mediated effects. *$P < 0.05$, 2-tailed.

Results: Experiment 2

Table 2. The mediated influence of gender pronoun use on opinions about gender equality (study 2)

	Effects on mediator	Mediator's influence on political attitudes			
	1. Imagine a Nonmale	2. Knowledge of Female Politicians	3. Profemale Preferences	4. Positive Feelings: Gays	5. Social Acceptance: Gays
Gender-neutral pronoun	0.249 (0.076)*	0.210 (0.082)*	0.027 (0.004)*	0.292 (0.034)*	0.273 (0.034)*
Feminine pronoun	0.587 (0.074)*	—	—	—	—
CFI/TLI	0.976/0.957	—	—	—	—
RMSEA (90% CI)	0.035 (0.028 to 0.042)	—	—	—	—
N	1,840	1,840	1,840	1,840	1,840

Table entries are probit coefficients with SEs from a structural equation model (SEM) estimated in Mplus (v.8). Except for Profemale Preferences, all outcomes are modeled as latent variables (see text). Variances of latent variables are fixed to 1.0 to identify the model, thus setting their coefficients' metric to SD units. Profemale Preferences is on a 0 to 1 interval, which sets its coefficient's metric to percentage points. See *SI Appendix*, section 3 for formal tests of mediated effects. *$P < 0.05$, 2-tailed.

Pronouns or Social Desirability?: Experiment 3

Our claim: pronoun use affects gender opinions by minimizing gender distinctions.

Implication: "automatic" or "seamless" fx.

Alternative: People are primed with pronouns and realize they are supposed to report "correct" opinions.

Implication: "effortful."

Study 3:
Manipulate Time Constraints

- Random assignment to rate figure via pronouns.
- Rate figure.
- Sentence completion in 15 sec. or less (captures automaticity).
- <u>If our interpretation is correct:</u> sentence completion patterns should be similar to prior studies, unconditioned by time.

Results: Experiment 3

Table 4. Time constraints negligibly impact name reports by pronoun condition

	Report nonmale names	Report nonmale names (interaction with timing treatment)
Gender-neutral pronoun	1.790 (0.132)*	1.866 (0.197)*
Feminine pronoun	3.391 (0.154)*	3.320 (0.219)*
Timed response	0.110 (0.096)	0.165 (0.235)
Gender-neutral × timed	—	−0.159 (0.265)
Feminine × timed	—	0.201 (0.316)
Constant	−1.841 (0.128)*	−1.872 (0.178)*
N	1,238	1,238

Estimates are from probit models with robust SEs. *$P < 0.05$, 2-tailed.

Summary

- We find converging evidence that the language one speaks can affect what one thinks about gender equality.

- Evidence on this general relationship gathered from across several studies varying by setting, type of subjects, and operationalizations of our main IV.

Question and Answer

- We look forward to your feedback.