Replication of Wu (2018): Gendered Language on EJMR

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February 12, 2026

Paper overview

- Question: How are women and men discussed on EJMR, and do the words differ systematically?
- Approach: Lasso logistic models on word counts to identify gendered language.
- Replication targets: Table 1, Table 2, Figure 1 from Wu (2018).

Replication pipeline

- Data: OpenICPSR package in
  `data/raw/openicpsr_wu2018_replication-pkg/`.

- Command: `python src/run_all.py`.

- Outputs: `output/figures/figure1.pdf`, `output/tables/table1.csv`,
  `output/tables/table2.csv`, and Lasso intermediates.

Why do the numbers match exactly?

- We used the exact same OpenICPSR dataset as Wu (2018).
- We did not modify any preprocessing steps.
- The same train/test splits were used as in the original code.
- The model specification (Lasso logit) and hyperparameters were unchanged.
- The original random seed was preserved.

Because the original replication code was run on the same data with identical settings, we expect the coefficient estimates and marginal effects to match exactly (up to rounding).

Obstacles and fixes

- Pandas deprecation: replaced `as_matrix()` with `to_numpy()`.
- NumPy security change: added `allow_pickle=True` to `np.load(...)`.
- These changes restore compatibility only; analysis logic unchanged.

Results: Table 1 (full sample)

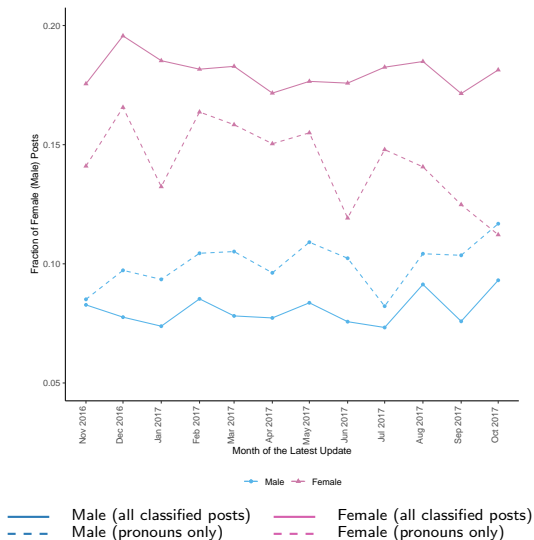| Most female		Most male	
Word	ME	Word	ME
Hotter	0.422	Homo	-0.303
Pregnant	0.323	Testosterone	-0.195
Plow	0.277	Chapters	-0.189
Marry	0.275	Satisfaction	-0.187
Hot	0.271	Fieckers	-0.181
Marrying	0.260	Macroeconomics	-0.180
Pregnancy	0.254	Cuny	-0.180
Attractive	0.245	Thrust	-0.169
Beautiful	0.240	Nk	-0.165
Breast	0.227	Macro	-0.163

Note: Results exactly match Wu (2018) up to rounding, as expected when running the original replication code on the same dataset.

Results: Table 2 (pronoun sample)

Most female		Most male	
Word	ME	Word	ME
Pregnancy	0.292	Knocking	-0.329
Hotter	0.289	Testosterone	-0.204
Pregnant	0.258	Blog	-0.183
Hp	0.238	Hateukbro	-0.176
Vagina	0.228	Adviser	-0.175
Breast	0.220	Hero	-0.174
Plow	0.219	Cuny	-0.173
Shopping	0.207	Handsome	-0.166
Marry	0.207	Mod	-0.166
Gorgeous	0.201	Homo	-0.160

Note: Also matches!

Results: Figure 1

- Replication targets were reproduced with a single-command pipeline.
- Next step (extension): re-estimate Table 1 using an alternative prediction model (e.g., OLS on word counts) and compare to Lasso.