Nonbinary speakers' rates of (ING) stable across conversation topics

Jack Rechsteiner (they/them) and Betsy Sneller (she or they)
Michigan State University

Email: rechste4@msu.edu
Twitter: @J_Rechsteiner

Betsy Sneller

Advisor

Email: sneller7@msu.edu
Website: betsysneller.gitbhub.io
Ph.D., Linguistics, University of Pennsylvania

Gender in sociolinguistics

- Past sociolinguistic studies have used gender as a variable, usually categorizing participants via cisnormative assumptions.
  - cisnormative = the assumption that people are cisgender
  - cisgender = someone whose gender identity matches their sex-assigned-at-birth
- However, framing gender as a male–female binary is inadequate (Corwin 2009, Eckert 2014, Garmpi 2020).
- Gratton 2016: The construction of nonbinary identity is its own active process

Background

1. Gratton 2016:
   - 2 nonbinary consultants – 1 assigned male at birth (AMAB), 1 assigned female at birth (AFAB)
   - Interviewed across 2 contexts – queer and non-queer situations
   - (ING) variation: found to be gendered (Campbell-Kibler 2007, Tamminga 2016)
   - Consultants decreased their rates of the (ING) variant associated with their sex-assigned-at-birth when in non-queer contexts

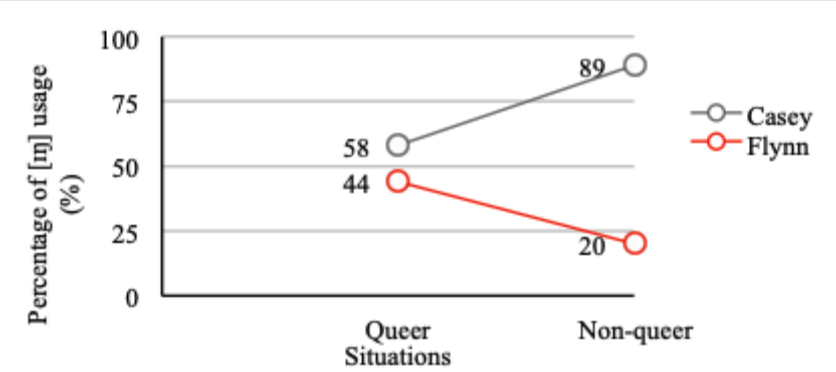


Figure 1: Distribution of [ɪŋ] usage by consultant and situation.

Casey was AMAB
Flynn was AFAB

Background

1. Gratton 2016:
   - Routine threat: being misgendered in cis spaces; stance work mitigates this (Gratton 2017)
   - "What might be considered 'normative' is in fact a survival strategy… It is not always safe, and may come at great risk, [for non-binary people] to 'do' non-normativity." (Konnelly 2021)
   - Suggests that *threat of being misgendered* is a primary mechanism for changing rates of (ING)

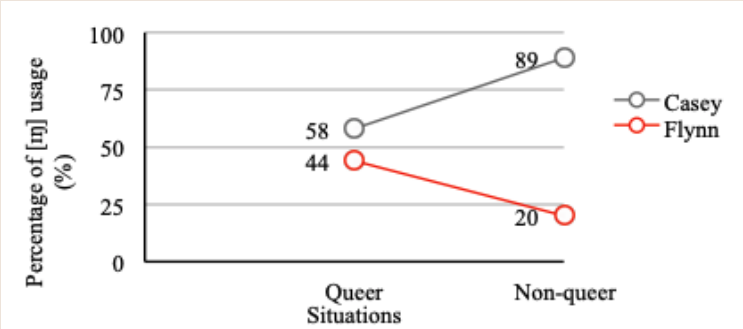


Figure 1: Distribution of [ɪŋ] usage by consultant and situation.

Casey was AMAB
Flynn was AFAB

Background

1. Gratton 2016, 2017: *threat of misgendering* is a primary mechanism for changing (ING)

2. But what other mechanisms might also play a role?
   - Attention Paid to Speech (Labov 1972)
   - Activation of indexical field (Hay & Drager 2010)
   - Topic-based stances:
     - Grieser (2019, 2022): African American Language speakers use higher rates of final consonant devoicing (an AAL feature) when speaking about African American topics
     - Wan (2021): Speakers of Taiwan Mandarin who are active supporters of the deaf community shift to a more retroflexed variant of /ʂ/ during deaf identity topics to perform 'deafness'

3. Here: do topics that evoke gender identity stances cause nonbinary speakers to shift their rates of (ING)?

Do nonbinary speakers shift (ING) when speaking about gender?

Want to control for:

- Interlocutor
- Threat of misgendering
- Environment (cis vs. non-cis spaces)

Controlling: interlocutor

- I'm the interviewer
- Nonbinary

Controlling: threat of misgendering

- I'm part of a community of practice with all participants
- I share gender ideologies with the participants

Controlling: environment

- Interviews done 1-on-1 via Zoom in participants' homes

Participants: 6 nonbinary speakers

- Participants varied in their specific nonbinary identities, but all participants used labels (e.g. genderflux, nonbinary woman) to describe their nonbinary identity in further detail.

All 6 participants:
- lived in Michigan at the time of the study.
- had some level of college education.
- ranged in age from 21 to 27.

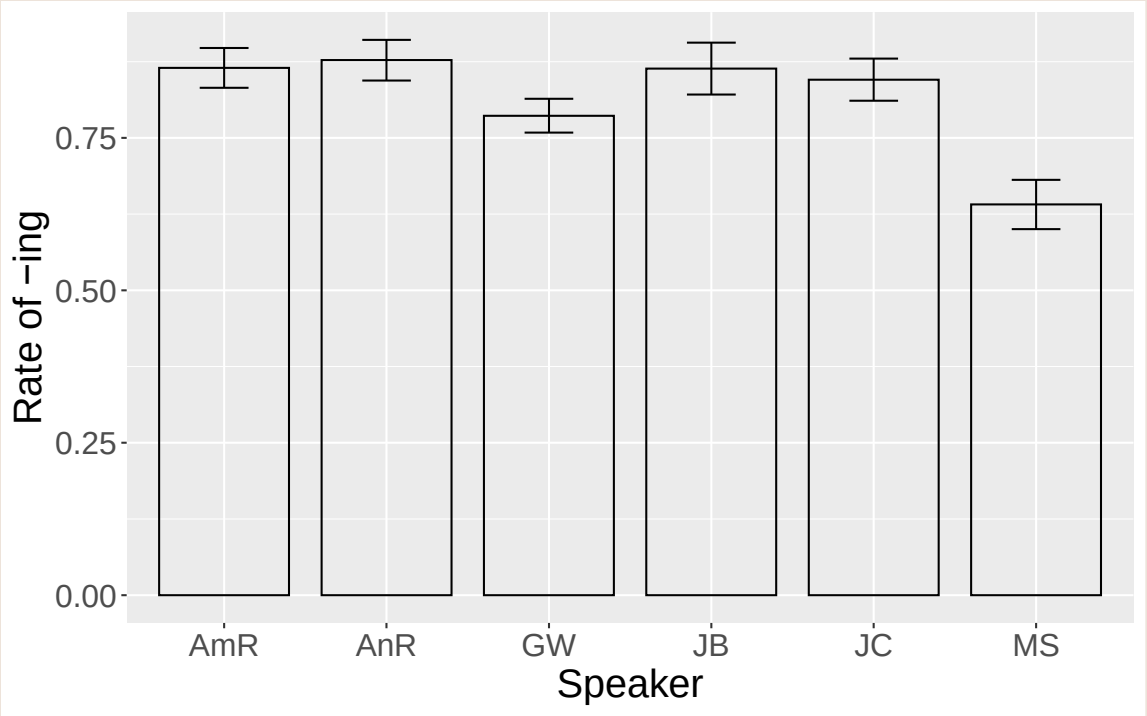
5 participants identified as white, 1 participant identified as black.

3 participants were AMAB, 3 participants were AFAB.

Speaker's overall rates of *–ing*

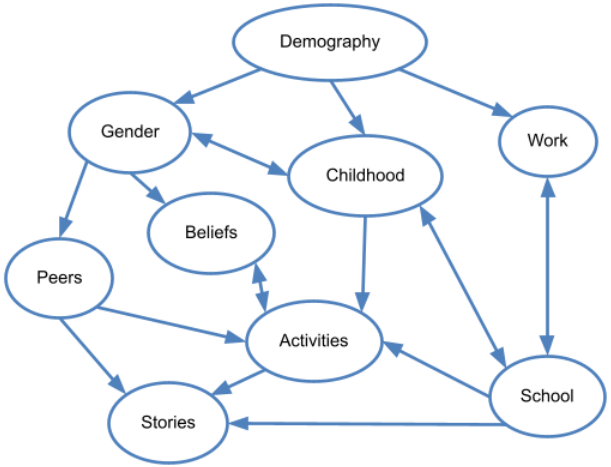
No difference in rates of *–ing* across speakers, **except** MS, who is from Michigan's Upper Peninsula.

The Upper Peninsula is geographically separate from the rest of Michigan. It is a very rural region that is strongly associated with working class identities.



Recording

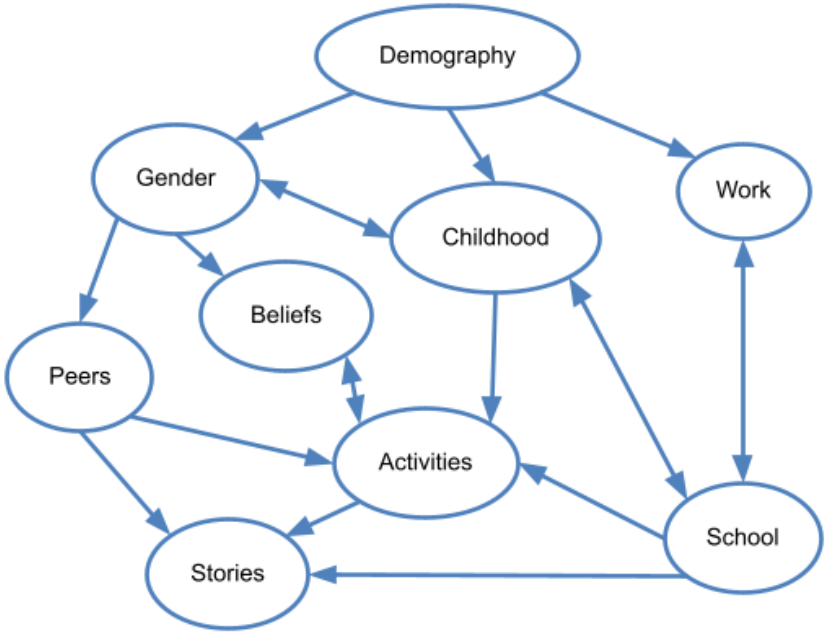
- Interviews were conducted on Zoom.
- Participants recorded audio locally using Audacity
  - High fidelity audio (Sanker et al., *to appear*)
- Sociolinguistic interview modules were made to elicit narratives and opinions, specifically about gender (Labov 1984)



Recording

Gender question examples:

- How important is it to you to express your gender in ways that others can see?
- What was your experience with discovering your gender identity?
- Are there any ways that you think people can avoid sounding cis?



Coding

(ING)

–ing –in variation was coded auditorily in Praat using handCoder_style.praat
(Fruehwald, Kodner & Tamminga 2013)

Monosyllabic content words, like 'ring' or 'thing', were excluded from the analysis because their pronunciations do not vary.

–ing –in' variation

"I'm **watching** Avatar The Last Airbender right now, **doin'** a rewatch of that."

Coding

Gender vs. *Not-gender*

Topic was coded based on interview content.

Gender includes participants talking about:

- their own gender experience
- Gender Module of the interview
- gender as it related to other topics not listed above

All other contexts were coded as *not-gender.*

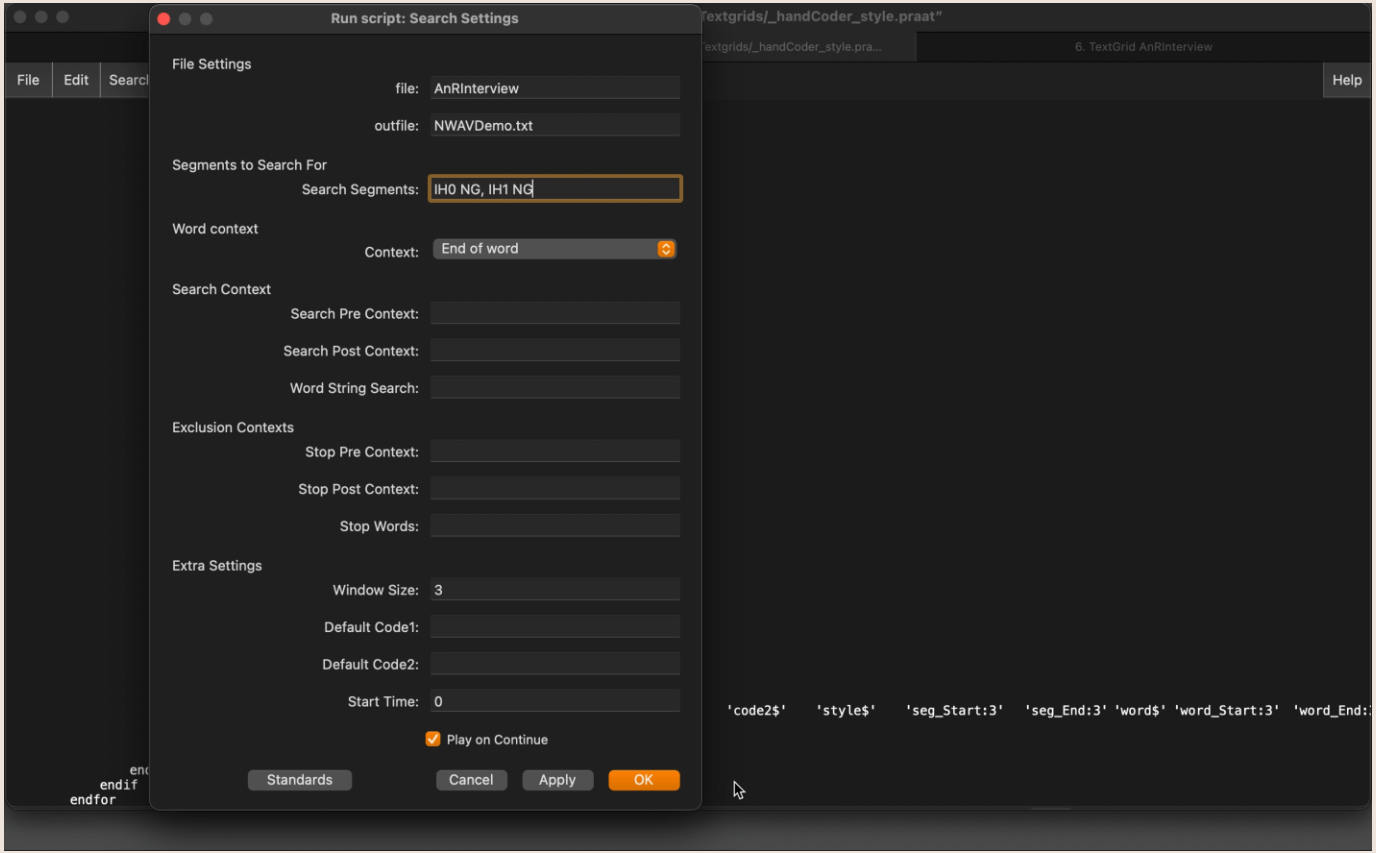
Directly talking about *gender*

"On one hand, I see -- I see myself **bein'** outside of the male-female binary as a whole, but also I see -- but also I see myself almost **being** uh -- I guess like faded kinda like in the middle of the two."

Indirectly talking about *gender*

"They recently added gender-neutral pronouns to the game. Every time I start a new Shovel Knight game, I'm like, 'all right, lady Shovel Knight, gender neutral pronouns' and then just, and then I -- it me."

Auditory coding with handCoder.praat



handCoder.praat output

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	File	Segment	Position	Code1	Code2	Style	Seg_Start	Seg_End	Word	Word_Start	Word_End	Pre_Seg	Pre_Seg_Sta	Pre_Seg_Enc	Post_Seg	Post_Seg_St	Post_Seg_En	Window	Vowels_per_
2	AnRInterviev	IH0	End	1			14.492	14.542	LIVING	14.313	14.702	V	14.443	14.492	IH	14.702	14.742	1.469	4.765
3	AnRInterviev	IH0	End	1			75.883	75.933	LIVING	75.743	75.993	V	75.842	75.883	IH	75.993	76.043	1.471	6.798
4	AnRInterviev	IH0	End	1			169.063	169.123	WORKING	168.842	169.192	K	168.943	169.063	F	169.192	169.272	1.549	4.519
5	AnRInterviev	IH0	End	1			179.172	179.402	DOING	179.052	179.492	UW	179.132	179.172	sp	179.492	179.523	1.5	4
6	AnRInterviev	IH0	End	1			188.313	188.363	TAKING	188.043	188.473	K	188.223	188.313	F	188.473	188.533	3.061	2.287
7	AnRInterviev	IH0	End	1			192.013	192.083	DOING	191.923	192.152	UW	191.972	192.013	AH	192.152	192.192	1.96	4.592
8	AnRInterviev	IH0	End	1			192.512	192.572	MAPPING	192.192	192.683	P	192.452	192.512	P	192.683	192.812	2.63	3.802
9	AnRInterviev	IH0	End	1			194.063	194.183	MAPPING	193.773	194.253	P	193.993	194.063	sp	194.253	194.303	2.401	2.915
10	AnRInterviev	IH0	End	1			224.662	224.702	DOING	224.593	224.843	UW	224.613	224.662	L	224.843	224.992	1.67	5.389
11	AnRInterviev	IH0	End	1			235.532	235.592	GETTING	235.362	235.713	T	235.492	235.532	W	235.713	235.782	2.65	1.887
12	AnRInterviev	IH0	End	1			257.483	257.542	SOMETHING	256.803	257.863	TH	257.422	257.483	DH	257.863	257.933	3.7	1.892
13	AnRInterviev	IH0	End	1			260.663	260.872	ORGANIZINC	260.103	261.032	Z	260.563	260.663	ER	261.032	261.092	2.449	5.717
14	AnRInterviev	IH0	End	0			269.012	269.052	SOMETHING	268.762	269.132	TH	268.932	269.012	AY	269.132	269.252	1.81	4.42
15	AnRInterviev	IH0	End	0			271.723	271.783	HELPING	271.442	271.853	P	271.692	271.723	P	271.853	271.913	10.53	0.665
16	AnRInterviev	IH0	End	1			298.192	298.303	COMMUTINC	297.752	298.423	T	298.152	298.192	IH	298.423	298.473	2.79	2.867
17	AnRInterviev	IH0	End	1			300.063	300.103	GETTING	299.943	300.193	T	300.033	300.063	DH	300.193	300.232	3.569	1.961
18	AnRInterviev	IH0	End	1			322.323	322.362	HAVING	322.172	322.483	V	322.292	322.323	S	322.483	322.612	2.291	3.492
19	AnRInterviev	IH0	End	0			351.052	351.123	GOING	350.972	351.182	OW	350.992	351.052	T	351.182	351.272	1.67	5.988
20	AnRInterviev	IH0	End	1			452.393	452.423	PLAYING	452.183	452.532	EY	452.302	452.393	V	452.532	452.602	2.59	3.861
21	AnRInterviev	IH0	End	0			529.243	529.273	PLAYING	529.073	529.332	EY	529.163	529.243	AH	529.332	529.363	2.3	4.783
22	AnRInterviev	IH1	End	1			572.942	572.973	SING	572.822	573.063	S	572.822	572.942	AH	573.063	573.093	1.2	4.167
23	AnRInterviev	IH0	End	1			618.863	618.913	GOING	618.683	619.033	OW	618.733	618.863	F	619.033	619.123	2.82	2.128
24	AnRInterviev	IH0	End	1			630.072	630.113	STARTING	629.722	630.222	T	630.042	630.072	AW	630.222	630.262	1.321	3.028
25	AnRInterviev	IH0	End	1			631.532	631.562	TRANSFERRI	631.142	631.673	ER	631.502	631.532	T	631.673	631.742	1.779	5.059
26	AnRInterviev	IH0	End	1			700.642	700.682	MAKING	700.382	700.783	K	700.552	700.642	F	700.783	700.862	2.291	3.055
27	AnRInterviev	IH0	End	0			703.932	703.972	ATTENDING	703.612	704.002	D	703.902	703.932	DH	704.002	704.083	2.421	4.544
28	AnRInterviev	IH0	End	1			718.133	718.232	BONDING	717.793	718.413	D	718.093	718.133	sp	718.413	719.852	3.48	1.724
29	AnRInterviev	IH0	End	1			747.272	747.302	FOCUSING	746.742	747.693	S	747.133	747.272	sp	747.693	747.763	2.77	2.527
30	AnRInterviev	IH0	End	1		gender	810.782	810.843	SOMETHING	810.492	810.932	TH	810.702	810.782	DH	810.932	811.022	2.59	2.703
31	AnRInterviev	IH0	End	1		gender	824.383	824.513	GOING	824.243	824.613	OW	824.263	824.383	AA	824.613	824.823	2.341	3.417
32	AnRInterviev	IH0	End	0		gender	862.543	862.583	COMING	862.333	862.673	M	862.482	862.543	T	862.673	862.703	1.981	6.058
33	AnRInterviev	IH0	End	1		gender	863.782	863.822	MAKING	863.563	863.883	K	863.693	863.782	M	863.883	863.973	2.05	3.415
34	AnRInterviev	IH0	End	1		gender	912.403	912.453	WORKING	912.022	912.523	K	912.313	912.403	AA	912.523	912.663	3.08	2.922
35	AnRInterviev	IH0	End	1		gender	912.913	912.953	GETTING	912.773	913.063	T	912.883	912.913	AA	913.063	913.142	3.45	2.899

Coding

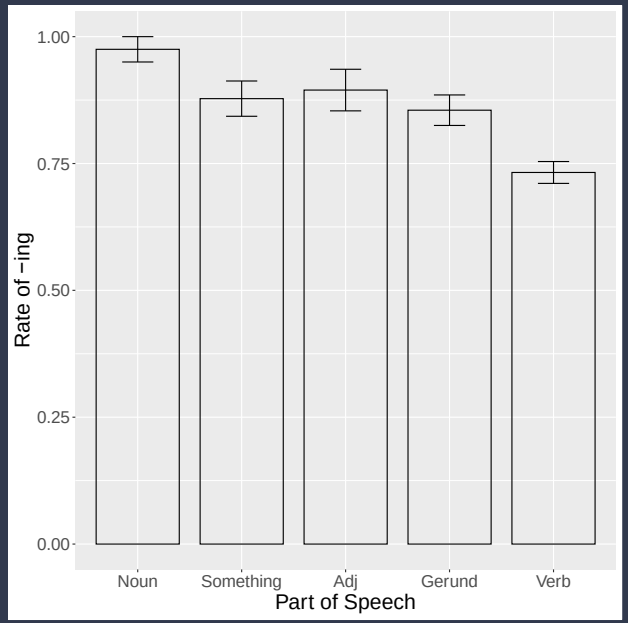
Lexical Category

(ING) variation is morphologically conditioned (Houston 1985)

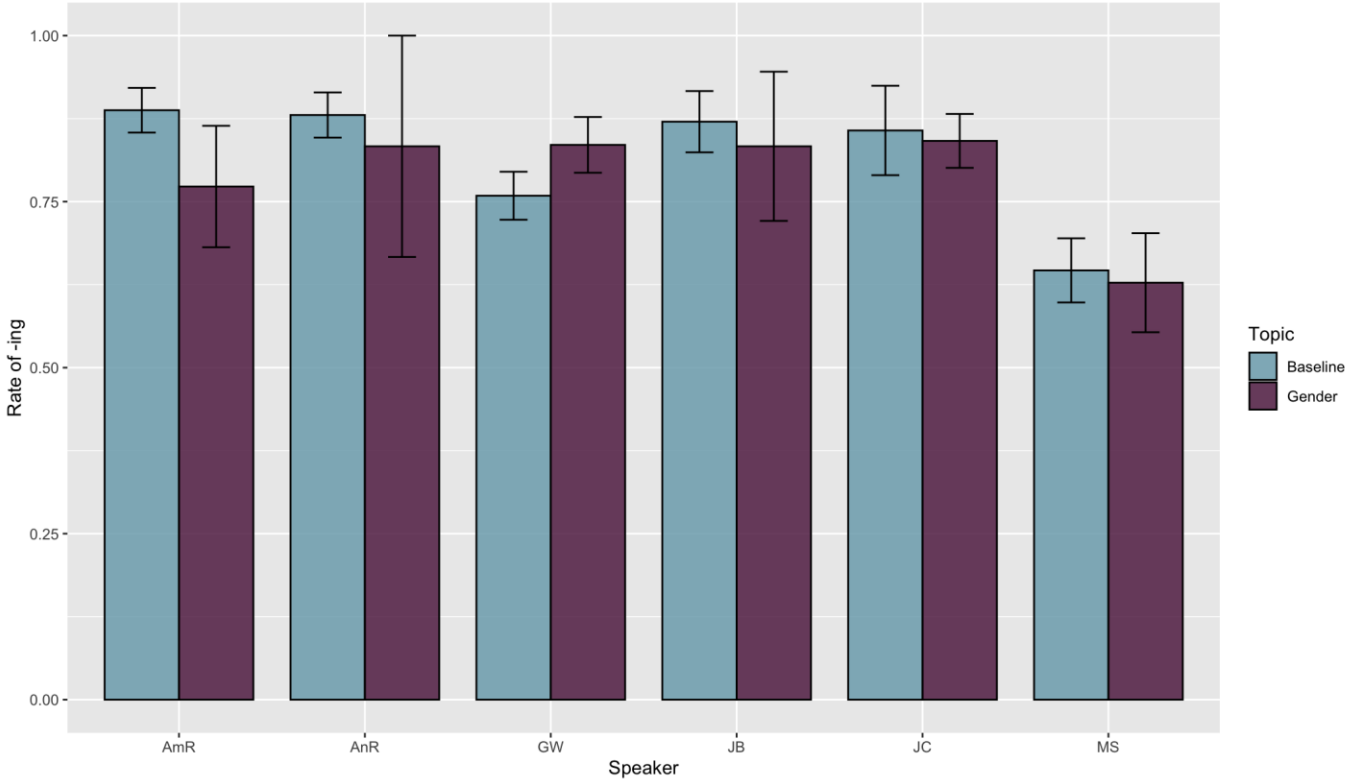
The output data was coded granularly for lexical category. Analysis showed certain items patterning together so these were collapsed into the following categories:

- Verb ← verbs, phrasal verbs
- Noun ← nouns, proper nouns
- Adj ← adjectives, adverbs
- SN ← ‘something’, ‘nothing’
- Gerund ← gerunds

Only 4 tokens of ‘during’ were observed, so ‘during’ was excluded from the results.



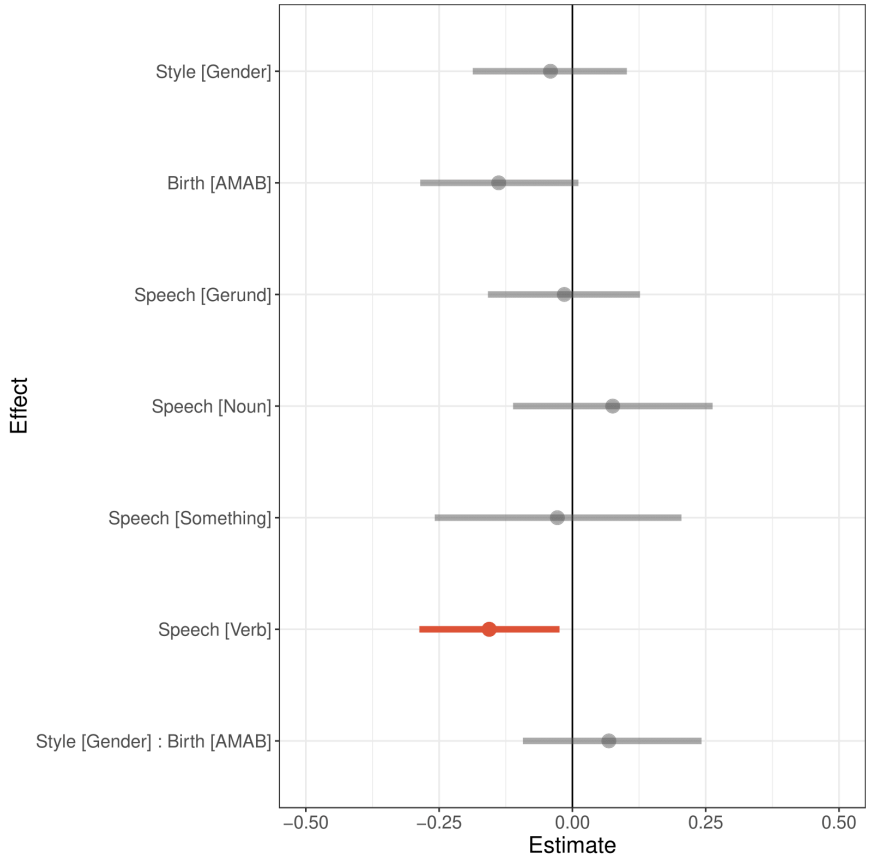
Results



846 tokens of (ING) across participants

Results

```
lmer(ING ~ style * sexbirth + PoS + (1|speaker) + (1|word))
```



	Estimate	P value
(intercept)	0.92	>0.001***
Style (gender)	-0.04	-0.5
Birth (amab)	-0.14	0.1
PoS (noun)	0.08	0.38
PoS (something)	-0.03	0.79
PoS (gerund)	-0.02	0.82
PoS (verb)	**-0.16**	**0.01***
Style:Birth	0.07	0.37

Discussion

Nonbinary participants do not shift rates of (ING) across *gender* topics.

Why is this interesting?

- Gratton's (2016) work suggests that *threat of being misgendered* is a primary mechanism for variable rates of (ING)
- But other mechanisms that could be causing this are:
  - *attention paid to speech* (casual vs. formal) or
  - *activation of indexical field* as a primary catalyst

Discussion

Nonbinary participants do not shift rates of (ING) across *gender* topics.

Why is this interesting?

- Gratton's (2016) work suggests that *threat of being misgendered* is a primary mechanism for variable rates of (ING)
- But other mechanisms that could be causing this are:
  - *attention paid to speech* (casual vs. formal) or
  - ~~*activation of indexical field* as a primary catalyst~~

Discussion

What else did we find?

- Speaker's assigned sex at birth plays no predictable role in rates of (ING).
- So nonbinary speakers should be analyzed as their own distinct community outside of the gender binary (e.g., Becker, Khan & Zimman *to appear*)

Future Work:

- How do nonbinary speakers from different communities compare?
- Do we find the same effect with other dependent linguistic variables that have been seen to have gendered distributions in cis populations?
- Is there an interlocutor effect? (Bell 1984)

Takeaway: after controlling for context, we did not observe (ING) variation across gender topics in our nonbinary participants.

Thank you

References

Becker, K., Khan, S., & Zimman, L. (to appear). Beyond binary gender: Creaky voice, gender, and the variationist enterprise.

Campbell-Kibler, K. (2007). Accent, (ING), and the social logic of listener perceptions. *American Speech, 82*(1), 32-64. doi: 10.1215/00031283-2007-002

Corwin, A. (2009). Language and gender variance: Constructing gender beyond the male/female binary. *Electronic Journal of Human Sexuality*, *12*. Retrieved from http://www.ejhs.org/Volume12/Gender.htm

Eckert, P. (2014). The problem with binaries: Coding for gender and sexuality. *Language and Linguistics Compass, 8*(11), 529-535. doi: 10.1111/lnc3.12113

Garmpi, A. (2020). *The Discursive Construction and Performance of Non-Binary Identity.* Master's dissertation. The University of Edinburgh.

Gratton, C. (2016) "Resisting the Gender Binary: The Use of (ING) in the Construction of Non-binary Transgender Identities," *University of Pennsylvania Working Papers in Linguistics, 22*(2). Retrieved from https://repository.upenn.edu/pwpl/vol22/iss2/7

Gratton, C. (2017) *Non-binary identity construction and intraspeaker variation*. The 91st Annual Meeting of the Linguistic Society of America, University of Texas at Austin. Retrieved from https://academia.edu/30897570/Non_binary_Identity_Construction_and_Intraspeaker_Variation

Grieser, J. (2019). Investigating Topic-Based Style Shifting in the Classic Sociolinguistic Interview. *American Speech, 94* (1), 54–71. DOI: 10.1215/00031283-7322011

Hay, J., & Drager, K. (2010). Stuffed toys and speech perception. *Linguistics*, *48*(4), 865–892. DOI: 10.1515/ling.2010.027

Houston, A. (1985). 'Continuity and change in English morphology: The variable (ing)'. Ph. D. dissertation, University of Pennsylvania.

Konnelly, L. (2021). Nuance and normativity in trans linguistic research. *Journal of Language and Sexuality 10*(1). John Benjamins Publishing Company. DOI: 10.1075/jls.00016.kon

Wan, T. L. A. (2021). *Topic-based variation of /ʂ/ and oral deaf speakers of Taiwan Mandarin*. UKLVC13.