The effects of topic & part of speech on nonbinary speakers' use of (ING)

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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



- 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

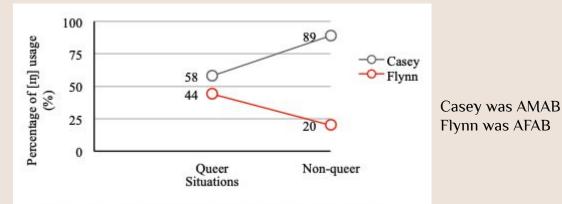


Figure 1: Distribution of [19] usage by consultant and situation.



- 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)

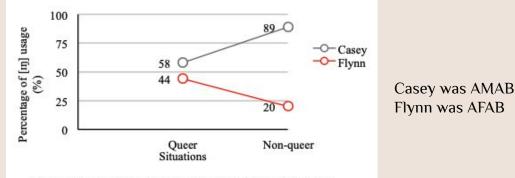


Figure 1: Distribution of [1ŋ] usage by consultant and situation.

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?
 - o Attention Paid to Speech (Labov 1972)
 - o 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 /\$/ 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: 8 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 8 participants:

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

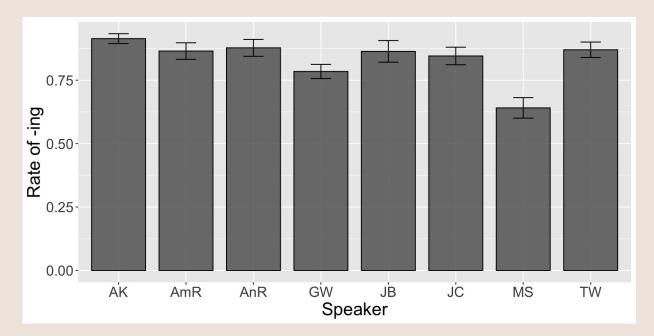
7 participants identified as white, 1 participant identified as black.

4 participants were AMAB, 4 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.

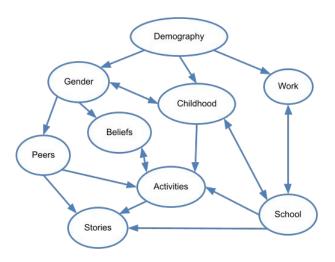
The Upper Peninsula is geographically separate from the rest of Michigan. It is a very rural region that is strongly associated with working class identities.



Recording

- Interviews were conducted on Zoom.
- Participants recorded audio locally using Audacity
 - High fidelity audio (Sanker et al., to appear)

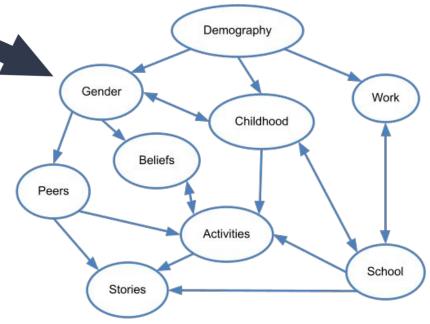
 Sociolinguistic interview modules were made to elicit narratives and opinions, specifically about gender (Labov 1984)



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

| | | | 🔴 🌒 🔹 Run s | cript: S | earch Settings | | | | | |
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handCoder.praat output

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

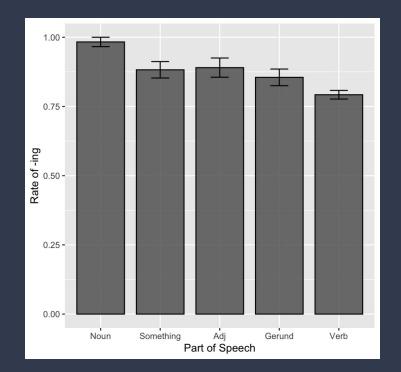
Coding

Lexical Category

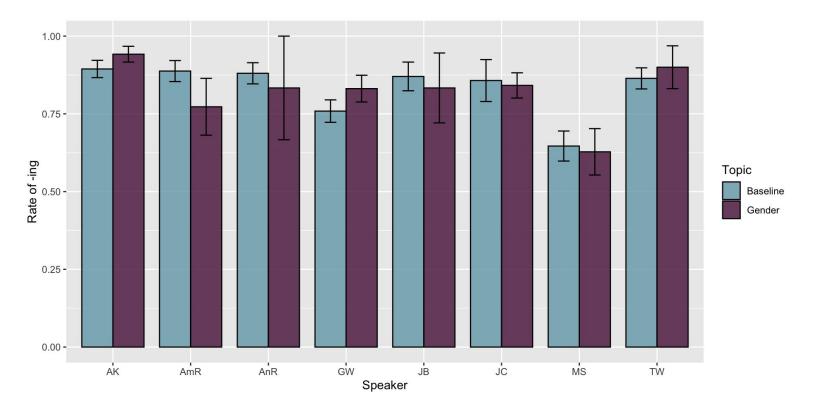
(ING) variation is morphologically conditioned (Houston 1985)

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

- Verb \leftarrow verbs, phrasal verbs
- Noun \leftarrow nouns, proper nouns
- Adj \leftarrow adjectives, adverbs
- SN \leftarrow 'something', 'nothing'
- Gerund ← gerunds



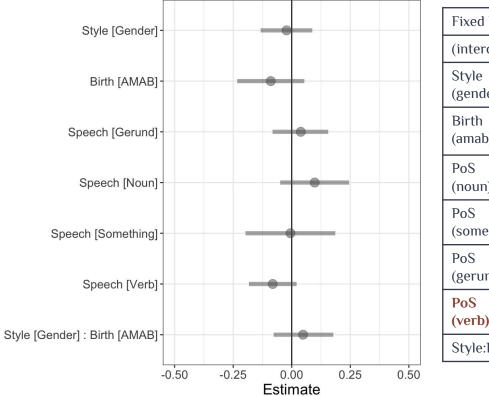
Results



1192 tokens of (ING) across participants

Results

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



| Fixed Eff. | Estimate | P value | | |
|--------------------|----------|-----------|--|--|
| (intercept) | 0.95 | >0.001*** | | |
| Style (gender) | -0.02 | 0.67 | | |
| Birth (amab) | -0.09 | 0.21 | | |
| PoS (noun) | 0.1 | 0.15 | | |
| PoS (something) | -0.01 | 0.95 | | |
| PoS (gerund) | 0.04 | 0.48 | | |
| PoS (verb) | -0.08 | 0.08 . | | |
| Style:Birth | 0.05 | 0.41 | | |

| Random Eff. | Std. Dev. | | | | |
|-------------|-----------|--|--|--|--|
| Word | 0.09 | | | | |
| Speaker | 0.08 | | | | |
| Residual | 0.35 | | | | |

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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

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 - *activation of indexical field* as a primary catalyst

Discussion

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

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)

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*)

Thank you

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