LING-GA 3510: Seminar in Sociolinguistics
Quantitative methods for studying intra-speaker variation & change
Course Information

### 1.	Logistics

Time	Tue. 12:30–3:15pm
Location	10 Washington Pl. #103

Instructors	Dr. Laurel MacKenzie
Contact	laurel.mackenzie@nyu.edu
Office	10 Washington Pl. #305
Office hour	By appointment. Book a meeting here.

### 2.	Goals

The goal of this course is to get you (more) comfortable with using and understanding quantitative methods for analyzing sociolinguistic data. Even if you have been using some of these methods for a while, you will become a more informed and confident user of them. We will solidify our understanding of these methods by reading papers on the theme of intra-speaker variation and change that employ them (or that could have employed them, but don't).

We will achieve our course goal through a number of routes:
- By working through tutorials
- By applying the methods we've learned about to our own data
- By attempting to reproduce other researchers' findings using their data and code
- By critically evaluating other researchers' methodological choices

### 3.	Prerequisite

This course will assume that you have already had a basic introduction to doing statistics in R, such as that offered by LING-GA 2945 Statistical Analysis in Linguistics.

### 4.	Course materials

Everything you will need for the course will be linked from this syllabus document. I recommend that you make a shortcut to this document on your own Google Drive by doing File > Add shortcut to Drive. Then organize it somewhere where you can easily find it each time we meet.

Access to course materials is restricted to NYU Google accounts. If you're told that you "do not have permission" to access some course material, you are likely logged in through a personal Google account. Switch to your NYU account and try again.

5. **Requirements**

- **Reading:** Many readings in the first half of the course will come from Bodo Winter's (2020) *Statistics for Linguists: An Introduction using R* textbook. (Also consult Dan Villarreal's errata/notes page as you read.) Later readings will be journal articles. Participants will be expected to do the assigned reading each week.

  Additionally, you are encouraged to annotate the readings with questions/comments/complaints as you read them. Most readings will be linked PDFs hosted on Google Drive. Google Drive allows you to highlight a passage and comment on it, as well as to reply to others' comments. These annotations will subsequently form the basis for our in-class discussion. Please don't hesitate to annotate the readings so that we have something to talk about in class! This is particularly important for journal articles, but annotations on textbook chapters will also be welcome. Annotations received by 8pm the night before class will be most useful. (If reading & annotating through Google Drive is too clunky/annoying, we'll find another method.)

- **Leading:** Enrolled participants will be expected to lead two sessions each: one "Read and reproduce" session and **half** of a "Just read" session (see Syllabus p. 3).

  As the leader for a "Read and reproduce" session, you will have two jobs. First, you will spend part of the class time leading discussion of the content of the paper. Feel free to incorporate our PDF annotations into the discussion. Your second job will be to attempt to reproduce the analysis associated with the paper ahead of class, using the author's code and data, so that you can guide the rest of us through it during class. It's ok if you can't get it all to work or can't make sense of everything (though definitely come talk to Laurel before class if you are really stuck). Knowing ahead of time where the pain points are will help us get through the code more efficiently.

  As the leader for half of a "Just read" session, your job will be to lead discussion of one paper. Feel free to incorporate our PDF annotations into the discussion.

- **Assignments:** Many weeks in the first half of the course have an associated assignment. These typically consist of asking you to read something and respond to it, or otherwise follow through on what you've read, and to bring your answers to class. Participants are expected to do the assignments.

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Syllabus
(subject to change based on how things go, student interest, etc.)

Week	Topics	Class notes	Homework
1	Pre-semester homework – please do before the first day of class		
2 (9/6)	Logistics, background reading, goals for the course	9/6 notes	9/6 HW
3 (9/13)	R code hygiene, R markdown, summarizing & plotting categorical dependent variables	9/13 notes	9/13 HW
4 (9/20)	Plotting vowels, basic linear modeling	9/20 notes	9/20 HW
5 (9/27)	More regression modeling (logistic & linear)	9/27 notes	9/27 HW
6 (10/4)	More regression modeling: contrast coding, interactions	10/4 notes	10/4 HW
7 (10/11)	**No class!** Legislative Day — Monday schedule		
8 (10/18)	More regression modeling: random effects, model selection	10/18 notes	
9 (10/25)	Read & reproduce: Wade 2022 (data+code)	10/25 notes	
10 (11/1)	Read & reproduce: Villarreal & Clark 2022 (data+code)	11/1 notes	
11 (11/8)	Read & reproduce: Fonteyn & Petré to appear (data+code)	11/8 notes	
12 (11/15)	Just read: Holmes-Elliott 2021, Voeten 2021	11/15 notes	
13 (11/22)	Just read: Sharma 2018, Gadanidis et al. to appear	11/22 notes	
14 (11/29)	Topics TBD! Some possibilities: - GAMMs: Fruehwald 2020; Sóskuthy 2017; read & reproduce Tamminga et al. 2016 (data+code); read & reproduce Tamminga 2021 (data+code available on request); read & reproduce Gahl & Baayen 2019 (data) - Measuring vowel overlap: Nycz & Hall-Lew 2014, Nycz 2019, Stanley 2019, Stanley 2021 - Random forests - Dimensionality reduction (e.g. PCA) - More journal articles, less stats	11/29 notes	
15 (12/6)		12/6 notes	
16 (12/13)		12/13 notes	

References

Fonteyn, Lauren, and Peter Petré. To appear. On the probability and direction of morphosyntactic lifespan change. *Language Variation and Change*.

Gadanidis, Timothy, Angelika Kiss, Lex Konnelly, Katharina Pabst, Lisa Schlegl, Pocholo Umbal, and Sali A. Tagliamonte. To appear. Integrating qualitative and quantitative analyses of stance: A case study of English *that/zero* variation. *Language in Society*.

Gahl, Susanne, and R Harald Baayen. 2019. Twenty-eight years of vowels: Tracking phonetic variation through young to middle age adulthood. *Journal of Phonetics* 74:42–54.

Holmes-Elliott, Sophie. 2021. Calibrate to innovate: Community age vectors and the real time incrementation of language change. *Language in Society* 50:441–474.

Nycz, Jennifer. 2019. Linguistic and social factors favoring acquisition of contrast in a new dialect. In *Proceedings of the 19th International Congress of Phonetic Sciences*, Melbourne, Australia 2019.

Nycz, Jennifer, and Lauren Hall-Lew. 2014. Best practices in measuring vowel merger. In *Proceedings of Meetings on Acoustics* 20.

Sharma, Devyani. 2018. Style dominance: Attention, audience, and the 'real me'. *Language in Society* 47:1–31.

Sóskuthy, Márton. 2017. Generalised Additive Mixed Models for dynamic analysis in linguistics: A practical introduction. ArXiv:1703.05339.

Tamminga, Meredith. 2021. Social meaning and the temporal dynamics of sound changes. In *Social Meaning and Linguistic Variation: Theorizing the Third Wave*, ed. Lauren Hall-Lew, Emma Moore, and Robert J. Podesva, 338–362. New York, NY: Cambridge University Press.

Tamminga, Meredith, Christopher Ahern, and Aaron Ecay. 2016. Generalized Additive Mixed Models for intraspeaker variation. *Linguistics Vanguard* 2:33–41.

Villarreal, Dan, and Lynn Clark. 2022. Intraspeaker priming across the New Zealand English short front vowel shift. *Language and Speech* 65:713–739.

Voeten, Cesko C. 2021. How long is 'a long term' for sound change? The effect of duration of immersion on the adoption of ongoing sound change. *Language Dynamics and Change* 12:28–77.

Wade, Lacey. 2022. Experimental evidence for expectation-driven linguistic convergence. *Language* 98:63–97.

Winter, Bodo. 2020. *Statistics for Linguists: An Introduction using R.* New York, NY: Routledge.