

Binary Opposition: Sociolinguistic Variation in Non-Binary Speakers

Thesis

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2021

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As ideas about gender evolve, it is important for research to evolve with it. Much previous sociolinguistic work has considered gender in terms of the male–female binary which has led to analyses that view gender as a social variable which has predictable effects in tandem with the effects of other macro-social categories and sociolinguistic variables (Eckert 1992). If sociolinguistics aims to descriptively study the influence of social variables on a speaker's language production, then it is imperative to use an analytic approach which allows for the many complexities of gender to be examined and interpreted. Gender has been used as a sociolinguistic variable because of its salience in public discourse and power relations (Trudgill 1972; Lakoff 1973) as well as being a key component of many social hierarchies (Enke 2012, p.1), but framing gender as a male–female binary is inadequate for understanding the interactions between gender and sociolinguistic variation because it fails to include identities which could provide valuable insight into these interactions.

Existing research on those who are outside the cisnormative binary has largely focused on the experiences of trans people with binary trans identities (Goldberg & Kuvalanka 2018); however, the amount of research on speakers with gender identities outside of the transnormative and cisnormative binaries is significantly smaller (Bradford et al. 2019; Garmpi 2020). Non-binary individuals present direct opposition to these gender binaries, in that they may identify as being somewhere along the spectrum between male and female or outside of the male–female dichotomy entirely. The experiences of non-binary individuals have been shown to be different from the experiences of binary-gendered individuals, such as marginalization in both cis and LGBT communities in addition to the unique challenges of being gender non-conforming in spaces that tend to understand gender as a binary framework (Goldberg & Kuvalanka 2018;

Bradford et. al 2019). The construction of non-binary identity has also been shown to be an active and unique process due to the ways that non-binary speakers utilize linguistic resources “to produce stances of resistance to cis-normative femininity and masculinity” (Gratton 2016). An examination of sociolinguistic variation in non-binary speakers should be crucial in developing our understanding of gender and how it interacts with language, instead of a curiosity that is relegated to the margins of research.

Research has observed non-binary speakers using (ING) variants at differing rates in different speech environments dependent upon the identity that the speaker felt the need to present in those social contexts (Gratton 2016). The goal of this study is to build upon this research by examining the variable use of (ING) by non-binary individuals while speaking about gender as contrasted with speaking on other topics. The research uses data from sociolinguistic surveys that were conducted with six non-binary participants. The analysis of this data showed that the non-binary participants interviewed did not significantly vary in their use of (ING) across topics, and it revealed that all participants had similar patterns of (ING) production regardless of their sex assignment at birth. This raises the implication that future research should consider analyzing the speech patterns of non-binary speakers in relation to other non-binary speakers to further confirm this trend. This paper begins with a review of the literature on gender, the variable (ING), and sociolinguistic variation in non-binary speakers, followed by a description of the methodology used in this study, a review of the results of the study, and discussions of patterns found in the data, insights gleaned from the participant’s meta-linguistic data, as well as addressing other factors which may have influenced usage of (ING).

Literature Review

In discussing the nuances of gender, it is important to clearly define the terminology being used. This paper's usage of the term cis refers to people whose gender identities align with the sex they were assigned at birth and the term trans to refer to people whose gender identities differ from the sex assigned to them at birth. Trans has been used to refer to trans women and trans men in addition to people with genders that are not part of the female–male binary (Enke 2012, p. 4; Goldberg & Kuvalanka 2018; Gratton 2016); additional terms that have been used to refer to people outside of the cisnormative gender binary include genderqueer (Bradford et al. 2018), transgender and gender nonconforming (TGNC) (Goldberg & Kuvalanka 2018), and others. For the sake of clarity and coherence, this paper uses trans to refer specifically to trans women and trans men, and non-binary to refer to identities which are not captured by the dichotomy of cis or trans female–male binaries as well as identities which resist the label of any gender at all; this choice is further motivated by the notion that not all non-binary individuals identify as trans (Darwin 2017). This paper follows the definition of cisnormativity given by Simmons & White, such that it “refers to the perpetuation of the false belief that there are only two genders, that gender is immutable, and that bodies define gender, such that people assigned as female at birth will identify as girls/women, and people assigned as male at birth will identify as boys/men” (as cited in Goldberg & Kuvalanka 2018, p. 2). The term transnormative is used to refer to the idea that the legitimacy of transgender identities is based upon adherence to the social norms of the cisnormative gender binary (Johnson 2016), as well as the social privileges afforded to trans people who follow these norms well enough to pass, or pass enough, as cisgendered (Enke 2012, p. 20).

Speech is one of the ways through which an individual creates and expresses their gender. It has been shown that speech and linguistic expression is a means through which individuals

influence, and are influenced by, the worlds in which they live (Hall 2003). Linguistic features have also been shown to index characteristics about a speaker, including the characteristic most relevant to this study – gender. Features such as pitch, loudness, pronouns, affect, and directness have all been shown to hold potential gendered meaning (Corwin 2009). Previous studies have asserted that “the clearest and most consistent results of sociolinguistic research in the speech community are the findings concerning the linguistic differentiation of men and women” (Labov 1990). Even with such a long-standing precedent being set by past research, the fundamental concept underpinning gender differentiation as it relates to the male–female binary is “undertheorized and simplistically understood” in the sociolinguistic field (Becker et al. to appear). However, there are ramifications for using this model of differentiation because these assumptions about the applicability of the male–female binary leads research to presume the identities of the speakers studied and it influences how their linguistic patterns are analyzed. Past research has provided evidence that biological or physical differences only play a minor role in the variation observed between genders (Zimman 2017). Calder and King (2020) also introduced problematizations regarding the treatment of gendered linguistic variables as homogeneously operating features as they showed that a speaker’s racial group, as well as their region, conditions the degree to which a linguistic feature is expressed as a gendered variant or whether it is expressed as a gendered variant at all. The more important factors involved with gendered variation in language are the social practices that a community uses to construct gender differences, practices which are then used by speakers in those communities to align with or break with the gender binary as it is defined within their communities (Eckert & McConnell-Ginet, 1992). Zimman (2017) proposes that gendered speech variation should be understood through the definition of sociolinguistic style, in that speakers are able to selectively

use and modify linguistic features to suit their own needs in creating the social meaning that they desire.

It has been put forth that gender is not a static category that is descriptive of an individual, but rather it is something that is performed or enacted by the speech and actions of an individual in certain contexts (Butler 1990). This leads to the idea that gender, in all its forms, is a concept that is discursively formed by social communities and then this conceptual framework is enacted upon by the individuals within those social communities. It is relevant to state that the linguistic features that are used in acting upon this conceptual framework are not inherently indexed in regard to gender, but are instead imbued with social meaning by the ways in which they produce a particular stance within the discourse of a community (Ochs 1992). In accordance with the theoretical foundation put forth by Eckert (2012), this paper views speakers as active agents who use and modify linguistic styles in a continuous process of self-construction throughout their lives. The sociolinguistic research that this study proposes is of the nature of examining how speakers construct their gender identities from within and outside of community-based frameworks.

Labov (1990) claims that "If we assign gender to our subjects by some other criterion than sex, we run the risk of losing any chance of replication by others." (1990, p. 209). The authors of this paper believe that this advocates for an adherence to outdated ideas of gender simply because it is how studies have been done in the past and to remove the gender binary from variationist analysis would make studies incomparable; additionally, sociolinguistic work on the patterns of binary gendered speakers who act similarly across macro-social speech communities is not nullified by analyzing the linguistic patterns produced by non-binary and non-cis people. This point is further supported by the claim that "If we are interested in getting

around either binary, we are not likely to do so entirely on the basis of large corpora, but through a variety of targeted ethnographic or, in some cases targeted survey, studies” (Eckert 2014).

Additionally, Becker et al. (to appear) noted that although their study’s results seemed to support the idea that gender is a single spectrum with cis men and cis women on each end, they believe that theorizing gender in that way is ideologically underrepresentative of the complex nature of language variation and that it leads to the incorrect notion that non-binary speakers must be acting within or in reaction to the gender binary.

A study on fundamental frequency and /s/ by Zimman (2017) showed that gender is constructed through “stylistic bricolage” consisting of an array of linguistic features that are used in relation to one another in a variety of ways to create a variety of gender identities. Existing studies on non-binary speakers have provided evidence that the construction of non-binary identities is a unique and active process. Corwin (2009) studied non-binary speakers who produced both masculine and feminine indexing phonetic features, such as combining a small pitch range with a high rate of high rise terminals, to create a speech style that “demonstrates a uniquely non-binary linguistic pattern.” Corwin goes on to say that “the linguistic tool is used to construct a gender presentation that does not fall along strictly binary gender lines. While on a micro-level these are only small phonetic features, on a social level, the unique use of these features hold social meaning.” In a similar way, Steele (2019) observed non-binary speakers who produced non-gendered speech through stylistic bricolage of linguistic features that are normatively indexed as feminine and masculine. Garmpi (2020) put forth a thematic analysis of the narratives of seven non-binary individuals which showed how these individuals performed their gender through a combination of overtly gendered linguistic features and features which covertly index certain kinds of gendered styles; additionally, this study showed that non-binary

individuals actively subverted the normative female–male binary as a way to create social space for their identities.

The variable (ING)¹ has been found to be a socially meaningful linguistic variable which is salient to speakers as a defined social object; e.g. listeners have been documented as perceiving *–ing* to be more metropolitan and less masculine than *–in* (Campbell-Kibler 2007). The social associations of (ING) are not fixed meanings, but it is a variable that a speaker can manipulate to affect their linguistic style in a way that is perceptible to a listener, in relation to other semiotic features that the speaker provides (Campbell-Kibler 2006). Studies have analyzed (ING) as patterning along gender lines in sociolinguistics since the mid twentieth century. Fischer (1958) observed differences in usage of (ING) for past participle endings between the girls and boys of a New England village, with girls using the *–ing* variant more than the boys. Since 1958, further research on (ING) has provided evidence that the variable is affected by external factors, which includes gender along with style, social class, and others. A frequent and consistent finding observed in sociolinguistic research is that female-gendered speakers use standard forms of stable, stratified linguistic features at a higher frequency than male-gendered speakers do (Labov 1990). This principle of linguistic variation has been seen to apply to (ING), with data showing that female-gendered speakers use the standard *–ing* variant at a higher rate than male-gendered speakers (Tagliamonte 2004, Trudgill 1974). On the basis that sociolinguistic variants such as (ING) do not index gender inherently, other studies have shown that (ING) is used by speakers in constructing various gender identities through their rate of standard to nonstandard usage.

In the same way that Zimman (2017), claimed that trans voices require the concept of gendered speech to be redefined as a “fluid set of multidimensional styles”, this paper asserts that

the evidence provided by non-binary speech serves to underline this necessary redefinition. Identities which are not captured by the categories of binary gender suggest that the expression of gender through linguistic means is an arena with much variation and that this variation can provide invaluable insight into the ways that speakers convey social meaning through their linguistic style. Furthermore, research which categorizes individuals into binary gender categories, whether cis or trans, erases the experiences and insights of non-binary individuals. As Darwin (2017) says, “Nonbinary gender evades definition by its very nature, which is why its potential to redo gender is so considerable; however, its ability to enact change remains conditional upon its recognition by others, including gender theorists.”

Methodology

The research process and methodology used in this study have been approved by the Institutional Review Board of Michigan State University. The research team consisted of two members, an associate professor and an undergraduate student. The interviewer was a white, queer, non-binary person. Participants were recruited through the interviewer’s personal connections within a community of queer individuals. Interviews were conducted virtually over the web-conferencing platform of Zoom. Audio was recorded by participants locally using Audacity, or, when that was not an option, with the service Cleanfeed which utilizes the Opus codec to record audio live. No video was recorded during the interviews.

The data for this study was collected from sociolinguistic interviews which were conducted in Michigan over a 5 month span from September 2020 to January 2021. 6 participants were interviewed and all participants self-identified as non-binary. All participants

reported having some level of college education. 5 of the 6 participants were white, and 1 participant identified as a black person of color. 5 of the participants reported growing up in Michigan, USA, with 1 having grown up in Florida, USA; all 6 participants live in the Mid-Michigan area at the time of the study. Participants ranged in age from 21 to 27. Each participant was fully briefed before each interview and debriefed afterward.

Participants varied in their specific non-binary identities, but all participants used labels such as genderflux or non-binary woman to describe their non-binary identity in further detail, which is consistent with the study by Harrison et al. (2012). Contrasting with previous studies on non-binary individuals (such as Garmpi 2020), 3 of the 6 participants in the current sample reported being assigned male at birth and 3 of the 6 participants reported being assigned female at birth. 4 of the 6 speakers were undergoing hormone treatment at the time the interview was recorded. The participants form a community of practice, as each member constructed their non-binary identity through “ways of doing things, ways of talking, beliefs, [and] values” (Eckert and McConnell-Ginet 1992).

A modular interview guide was developed based on Labov’s Q-GEN-II modules (1984). The Q-GEN-II modules were modified to include topics relevant to non-binary gender identity, including their experiences as a non-binary individual, the ways they expressed their gender, their queer community relationships, and their perceptions of cis speech. Questions were written to accompany each module and questions were formed to be open-ended in an effort to elicit narrative or conversational speech styles. Interviews lasted between 41 minutes and 151 minutes. The interviewer had the module guide with a list of questions available at all times (provided in

Appendix A), but in all interviews, participants were encouraged to discuss any topics that interested them even if they were not included in the pre-written questions. The interviewer focused on following the conversational flow determined by each participant's interest in certain topics, and as such the order of questions varied between interviews and no interview touched upon every question. The interviewer actively worked to create a comfortable and friendly setting, so that participants felt safe and open to express and talk about their gender identity. It was also made clear to participants that they could decline to speak about any topics that made them uncomfortable, without fear of penalty or being removed from the study. These methodological choices, coupled with the community relationships already formed between the interviewer and the interviewees, helped interviewees to speak in a natural and conversational manner. The interviews always began with conversation-starting questions from the demographic module before moving into the gender module (or other modules as shown in the module flow) to allow participants to become comfortable with the interview process. Additionally, participants were asked to read from a word list at the end of the interview but this data has not been included in this study.

Any contexts that are non-variable were excluded from the data set for analysis (monosyllabic content words – 'ring, sing').

Results

A total of 846 tokens of (ING) were analyzed for the six participants. Table 1 shows the results of distributional analyses of (ING) in the context of gender topics contrasted with other topics for all participants, and Table 2 shows the results of distributional analyses of (ING) for each participant across the entire interview. The results show that despite a markedly more

deliberative style while discussing *gender* topics such as gender identity and presentation, participants do not shift rates of (ING). Setting was controlled for in this study by the interviewer being a non-binary individual who is a personal acquaintance of each participant, so these results support Gratton's (2016) argument that the perceived threat of misgendering, rather than a factor like attention paid to speech, is a major motivating factor for shifting rates of (ING). It is possible that if these participants were interviewed in contexts with a perceived external threat, such as queer-excluding spaces, then participants (ING) variation would pattern more closely to the results seen by Gratton (2016).

	Gender		Other	
Variants	Number	Rate	Number	Rate
[ɪŋ]	224	82%	473	83%
[ɪn]	50	18%	99	17%

Table 1: Distribution of (ING) variation according to topic.

	AmR		AnR		GW	
Variants	Number	Rate	Number	Rate	Number	Rate
[ɪŋ]	104	89%	89	88%	220	82%
[ɪn]	13	11%	12	12%	47	18%
Total	117	100%	101	100%	267	100%

	JB		JC		MS	
Variants	Number	Rate	Number	Rate	Number	Rate
[ɪŋ]	65	88%	103	86%	116	69%
[ɪn]	9	12%	17	14%	51	31%
Total	74	100%	120	100%	167	100%

Table 2: Distribution of (ING) variation for each speaker.

Furthermore, the results of the data show that the speaker's assigned gender at birth plays no predictable role in rates of (ING), suggesting that nonbinary speakers form their own linguistic community that operates outside of the gender binary. As seen in Figure 1, all participants' pattern of *-ing* usage is similar across topics; the exception to this is participant MS, but this discrepancy can be explained by MS having a predominately more rural background than the other five participants.

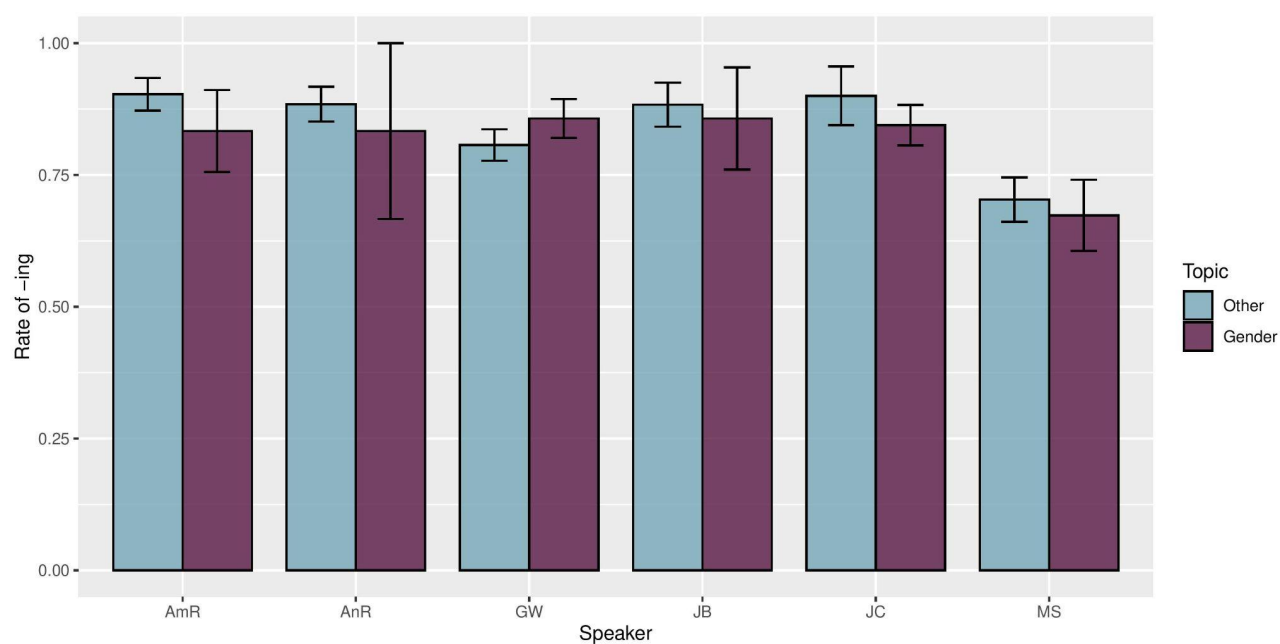


Figure 1: Bar graph plotting speaker's rate of *-ing*

Discussion and Conclusions

This study set out to build upon preexisting research on the speech patterns of individuals with non-binary identities, specifically their use of the sociolinguistic variable (ING). Gratton (2016) showed that non-binary individuals produce (ING) variants at different rates dependent upon the perceived external threat of the setting that the conversation took place; this study controlled for the setting of the interviews conducted in order to examine if deliberative and self-aware discussions on the topic of gender would affect participants variable use of (ING) when contrasted against other topics. The results showed that topic by itself does not influence participants' rate of [ɪŋ] or [ɪn] usage, and while doing so the results brought another important observation to light – participants patterned similarly to each other regardless of their sex assigned at birth. This fits in with Darwin's (2017) observation that non-binary individuals create stances that are in opposition to the gender binary by ““doing nonbinary gender” as a unique interactive process unto itself.” This provides further support for the notion that non-binary speakers use linguistic resources in some process of agentively constructing their identity through stylistic bricolage, whether they are consciously aware of it or not.

The sociolinguistic study of non-binary individuals and their experiences still has much more to cover, but this study hopes to be a step toward that growing body of work. This study was able to be performed by a member of the non-binary community who was already a familiar acquaintance with the participants involved, but the number of participants was limited in size due to the scope of this research. Future studies should continue this work with

non-binary individuals to observe if this trend of non-binary individuals continue to pattern similarly to each other across varying social backgrounds and experiences, as well as accounting for how these social backgrounds may influence and inform non-binary individuals production of gender. To continue expanding sociolinguistic theories of gender, it is important for sociolinguistic research to look outside the gender binary framework in order to give non-binary gender the visibility and possibility of elucidating the linguistic machinations underpinning the processes that produce gender stances.

Footnotes

¹ The variable (ING) refers to two primary variants – the velar [ɪŋ], which is the standard variant, and the alveolar [ɪn], which is the vernacular variant.

Bibliography

- Becker, K., Khan, S., & Zimman, L. (to appear). Beyond binary gender: Creaky voice, gender, and the variationist enterprise.
- Bradford, N. J., Rider, G. N., Catalpa, J. M., Morrow, Q. J., Berg, D. R., Spencer, K. G., & McGuire, J. K. (2019). Creating gender: A thematic analysis of genderqueer narratives. *International Journal of Transgenderism*, 20(2-3), 155-168.
doi:10.1080/15532739.2018.1474516
- Calder, J. & King, S. (2020). Intersections between Race, Place, and Gender in the Production of /s/. *University of Pennsylvania Working Papers in Linguistics*, 26(2), 31-38. Retrieved from <https://repository.upenn.edu/pwpl/vol26/iss2/5>
- Campbell-Kibler, K. (2006). Variation and the listener: The contextual meanings of (ING). *University of Pennsylvania Working Papers in Linguistics*, 12(2), 53-64. Retrieved from <https://repository.upenn.edu/pwpl/vol12/iss2/6>
- 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>
- Darwin, H. (2017). Doing Gender Beyond the Binary: A Virtual Ethnography. *Symbolic Interaction*. doi:10.1002/symb.316.
- 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

- Eckert, P. (2012). Three Waves of Variation Study: The Emergence of Meaning in the Study of Sociolinguistic Variation. *Annual Review of Anthropology*, 41(1), 87-100.
doi:10.1146/annurev-anthro-092611-145828
- Eckert, P., & McConnell-Ginet, S. (1992). Think practically and look locally: Language and gender as community-based practice. *Annual Review of Anthropology*, 21(1), 461-488.
doi:10.1146/annurev.an.21.100192.002333
- Enke, A. (2012). Introduction: Transfeminist perspectives. In *Transfeminist perspectives: In and beyond transgender and gender studies* (pp. 1-22). Philadelphia: Temple University Press. doi:<https://www.jstor.org/stable/j.ctt14bt8sf>
- Fischer, J. L. (1958). Social influences on the choice of a Linguistic variant. *WORD*, 14(1), 47-56. doi:10.1080/00437956.1958.11659655
- Garmpi, A. (2020). *The Discursive Construction and Performance of Non-Binary Identity* (Unpublished Master's dissertation). The University of Edinburgh.
- Goldberg, A. E., & Kuvalanka, K. A. (2018). Navigating identity development and community belonging when "there are only two boxes to check": An exploratory study of nonbinary trans college students. *Journal of LGBT Youth*, 15(2), 106-131.
doi:10.1080/19361653.2018.1429979
- 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>
- Hall, K. (2014). Contested and Problematized Gender Identities. In S. Ehrlich, M. Meyerhoff, & J. Holmes (eds.), *The handbook of language, gender, and sexuality* (pp. 220-239). Hoboken, NJ: John Wiley & Sons. doi:10.1002/9781118584248.ch11

- Harrison, J., Grant, J., & Herman, J. L. (2012). A Gender Not Listed Here: Genderqueers, Gender Rebels, and Otherwise in the National Transgender Discrimination Survey. *LGBTQ Public Policy Journal at the Harvard Kennedy School*, 2(1), 13. Retrieved from <https://escholarship.org/uc/item/2zj46213>
- Johnson, A. H. (2016). Transnormativity: A New Concept and Its Validation through Documentary Film About Transgender Men. *Sociological Inquiry*, 86(4), 465-491. doi:10.1111/soin.12127
- Labov, W. (1984). Field methods of the project on linguistic change and variation. In J. Baugh & J. Sherzer (eds.), *Language In Use* (pp. 28-53). Englewood Cliffs, NJ: Prentice Hall. Retrieved from <https://www.ling.upenn.edu/~wlabov/L470/Labov1984.pdf>
- Labov, W. (1990). The intersection of sex and social class in the course of linguistic change. *Language Variation and Change*, 2(2), 205-254. doi:10.1017/s0954394500000338
- Lakoff, R. (1973). Language and Woman's Place. *Language in Society*, 2(1), 45-80. Retrieved from <http://www.jstor.org/stable/4166707>
- Ochs, E. (1992). Rethinking context: Language as an interactive phenomenon. In A. Duranti & C. Goodwin (eds.), *Rethinking context: Language as an interactive phenomenon* (pp. 335-358). Cambridge England, Great Britain: Cambridge University Press.
- Podesva, R. J. (2007). Phonation type as a stylistic variable: The use of falsetto in constructing a persona. *Journal of Sociolinguistics*, 11(4), 478-504. doi:10.1111/j.1467-9841.2007.00334.x
- Podesva, R. J., & Kajino, S. (2014). Sociophonetics, Gender, and Sexuality. In S. Ehrlich, M. Meyerhoff, & J. Holmes (eds.), *The handbook of language, gender, and sexuality* (pp. 103-122). Hoboken, NJ: John Wiley & Sons. doi:10.1002/9781118584248.ch5

- Steele, A. (2019). *Non-binary speech, race, and non-normative gender: Sociolinguistic style beyond the binary*. (Electronic Thesis or Dissertation). Retrieved from <https://etd.ohiolink.edu/>
- Tagliamonte, S. A. (2004). Someth[*in*]'s go[*ing*] on!: Variable *ing* at ground zero. In Britt-Louise Gunnarsson, Lena Bergstrom, Gerd Eklund, Staffan Fidell, Lise H. Hansen, Angela Karstadt, Bengt Nordberg, Eva Sundergren and Mats Thelander (eds.), *Language Variation in Europe: papers from the Second International Conference on Language Variation in Europe, ICLAVE 2* Uppsala, Sweden, June 12-14, 2003.
- Trudgill, P. (1972). Sex, covert prestige and linguistic change in the urban British English of Norwich. *Language in Society*, 1(2), 179-195. doi:10.1017/s0047404500000488
- Zimman, L., & Hall, K. (2012). *Voices in transition: Testosterone, transmasculinity, and the gendered voice among female-to-male transgender people* (Unpublished doctoral dissertation). University of Colorado. Retrieved from <https://core.ac.uk/download/pdf/54849276.pdf>
- Zimman, L. (2017). Gender as stylistic bricolage: Transmasculine voices and the relationship between fundamental frequency and /s/. *Language in Society*, 46(3), 339-370. doi:10.1017/s0047404517000070