

Stylistically-induced variability: Task effects and multilingualism
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Introduction: Studies of sociolinguistic variation typically compare rates of variants or average acoustic measurements across styles and groups. By abstracting over within-group variability, these findings miss social and stylistic differences. I use Vaughn et al.'s (2019: 2) definition of *variability* as “fluctuations within a single measure.” Existing studies find that monolinguals can be less variable than bilinguals (Bosch & Ramon-Casas 2011), non-native speakers are differently variable than native speakers (Vaughn, Baese-Berk & Idemaru 2019), multilingual communities may be more variable than monolingual ones (Sharma 2011), and some individuals are more variable than others (Tamminga, MacKenzie & Embick 2016). For style, vowel targets are less variable in careful than in spontaneous speech (DiCanio et al. 2015).

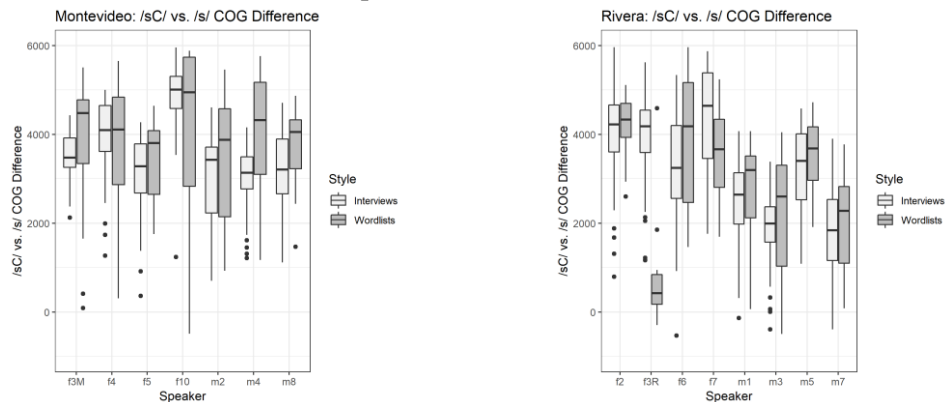
This study examines within-group and within-speaker variability in two speech styles and two varieties of Uruguayan Spanish. Focusing on two consonantal variables, I address the amount of variability in a) interviews vs. word lists, and b) monolingual vs. multilingual communities. Results show unexpectedly higher variability in word lists than interviews, and expected heightened variability in the multilingual community. These results may stem from the combination of word list task demands and sociolinguistic status of the variables, and have implications for how we use word lists in future research. The study is novel in examining within-category phonetic variability for consonantal variables at both group and individual levels.

Methods: I collected 15 sociolinguistic interviews and word lists from Montevideo, Uruguay's monolingual capital, and Rivera, a Spanish-Portuguese multilingual city on the Brazilian border. Intervocalic /bdg/ spirantization (/lago/:['la χ o]) and aspiration in /sC/ clusters (/pasta/:['pa χ ta]) were measured acoustically. Despite historical phonetic influences from Portuguese, Rivera Spanish is changing towards Montevideo norms (Carvalho 2006; Waltermire 2010). Montevideo Spanish spirantizes and aspirates; Brazilian Portuguese does neither. Spirantization was measured as an intensity ratio (comparing [a] to [ɣ] in ['la χ o]), and aspiration was measured as a COG difference (comparing /s/ in [pa χ ta] to a speaker's own [s]). To investigate variability, I use coefficients of variation (CVs) to quantify dispersion (Feltz & Miller 1996). Equality tests compare variability between styles and cities (Marwick & Krishnamoorthy 2018). I also predict individual variability (CVs) using mixed-effects linear regressions (*lme4*, Bates et al. (2015)).

Results & Discussion: At the group level, word lists are more variable than interviews (both variables). This unexpected result contrasts with vowel studies that find *less* variability in careful speech. Consistent with previous work, Rivera is more variable than Montevideo *within* each style. Results also hold at the individual level: speakers are more variable in Rivera and in word lists (Figure 1 shows aspiration results). Portuguese input may broaden Riverans permissible allophonic variability. As has been found for phonemic contrasts (e.g. Levy & Hanulíková (2019)), high input variability in Rivera may heighten allophonic production variability.

Heightened variability in word lists may result from task demands and high sociolinguistic awareness of variants. Both spirantization and aspiration are subject to conflicting prescriptive, local and national standards. Word lists force speakers to manage these standards, but give them no social context in which to structure variation, potentially leading to less “systematic” production (Labov, Baugh & Sherzer 1984). Previous studies do not investigate the same questions, but Hall-Lew & Boyd's (2017) plots of COG measurements by speaker suggest less variability in reading than in spontaneous speech. This difference from spirantization and aspiration indicates that variables undergoing change, or those subject to social and prescriptive norms, may be those that

show the word list effect. The results have practical implications for how we use word lists in phonetic research and for how speakers build repertoires of permissible allophonic variation. Figure 1 Wordlist and interview data for aspiration in /sC/ clusters.



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