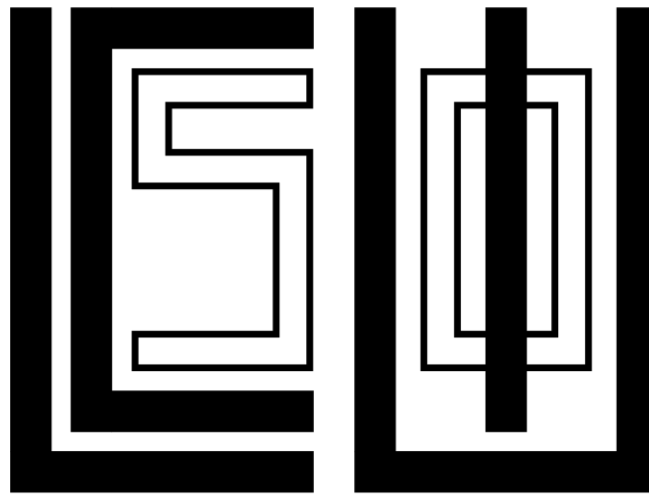


**50th Anniversary LCIU
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LINGUISTICS CLUB



50TH ANNIVERSARY

Edited by: Kait Lee-Legg & James C. Wamsley

A Study of the Place of Articulation of the Arabic Voiceless Dorsal Fricative in Six Different Varieties

Sarah Robinson

This study investigates the variations in different dialects of colloquial Arabic of the place of articulation of the dorsal fricative. This study uses state-of-the-art 3D/4D ultrasound, digitized 3D palate impressions, and audio recordings to analyze the dorsal fricative of Arabic speakers ranging from Morocco to the Levant and Saudi Arabia. Previous descriptions of the place of articulation of the dorsal fricative /χ/, which were mostly impressionistic, suggest that it ranges from velar to uvular. This variation is also recorded for regional varieties spoken within the same dialect. 3D/4D ultrasound data were collected from six native speakers of different varieties of Arabic. To provide comparative standards for various points of articulation, the corpus included productions of palatal, pharyngeal, and contrasting velar and uvular stops. The results show a general tendency toward uvular articulation or pre-uvular articulation across dialects, with some variation in some speakers. To quantify this variation, we estimated the relative distance between the tongue posture to the uvular and velar stop articulations, verifying the general observations from the images themselves. Acoustically, the fricatives consistently showed a spectral formant peak at a frequency that is higher than what was found with the uvular stop, and these peak frequencies were related to the articulatory differences found with the ultrasound system. Thus, the articulatory variation is readily detectable in the acoustics. These results show conclusively that dorsal fricatives tend to be articulated as pre-uvulars, but with considerable variation from individual to individual. Taken together, we believe the results indicate an effect of the fact that the dorsal fricative does not contrast between velar and uvular, as do the stops. Given the lack of contrast, the dorsal fricative is free to encroach upon the velar region, and does so regularly. The stops, by contrast, are extraordinarily different, perhaps indicating the presence of the guttural/non-guttural contrast.

Keywords: Arabic, Voiceless Dorsal Fricative, Ultrasound

3D Ultrasound analysis of amateur voice actor imitating child speech

Colette Feehan

Voice actors are an interesting population for linguistic study because of their unique abilities to manipulate their vocal tract and convey specific social identities. This field is essentially a type of professional folk linguistics where professionals manipulate their vocal tracts to convey socially indexed, linguistic features. This study uses Ultrasound paired with acoustic analyses of vowel formants and f_0 variation to see what one amateur voice actor does while imitating a child voice. Previous studies have looked at anatomical and acoustic variation defining specific character types such as laryngeal setting of heroic and villainous characters (Teshigawara & Murano, 2004) and breathy voice in strong female characters in Anime (Starr, 2015). This study addresses specific tongue morphology resulting from an adult imitating a child's voice and serves as a pilot to lay ground work for future study of voice actors' vocal tract manipulation. The participant is one adult, amateur voice actor who produced CV syllables at different places of articulation with different vowel qualities. To approximate a child voice, the actor does not simply manipulate f_0 . Notable manipulations across conditions are hyoid bone movement, gesture fronting, and tongue "troughing" where the sides of the tongue are used to narrow the oral cavity throughout the speech gesture. The actor constricts the filter in multiple ways to shrink the usable space in the oral cavity, reduce the space for resonance, and imitate the acoustic signal from a child's vocal tract.

Keywords: Articulatory Phonetics, Acoustic Phonetics, Ultrasound, Vocal Performance, Imitation

Remote Fieldwork with the Hadzabe: An Emerging Methodological Approach to Community-Based Linguistic Research

Jeremy Coburn & Richard Griscom

Keywords: FIELDWORK, LANGUAGE DOCUMENTATION, LANGUAGE ENDANGERMENT, TECHNOLOGY, COMPUTATIONAL

In recent decades, an increased emphasis has been placed on the documentation and description of the world's endangered languages. However, many vulnerable languages are spoken by small socially-marginalized communities and conducting traditional linguistic fieldwork and documentation efforts in such communities can be highly problematic. Cultural, legal, financial, and governmental restrictions often make fieldwork in Africa impossible, increasing the inevitability of losing much of Africa's linguistic diversity. With the development of multiple technologies in Africa—e.g. smartphones, 3G internet, VoIP, solar technology, and mobile banking in rural areas—linguists may now work with speakers of endangered languages remotely via the internet, thus facilitating community-internal documentation. Native speakers of endangered African languages may be trained to use smartphones, recording devices, spreadsheets, and linguistic transcription/translation conventions to assist in collecting, parsing, and evaluating data of their own languages and be paid remotely. This methodology has been applied preliminarily with the Hadzabe people of north-central Tanzania, a historically- and linguistically significant, though oppressed, minority group which predates the Bantu expansion to East Africa. A Hadza speaker received basic linguistic and instrumental training, including the effective production of linguistically-viable recordings, and was provided a smartphone with necessary software through which remote fieldwork was conducted. While limitations do exist, the results of these efforts demonstrate that remote digital fieldwork is a legitimate and productive method for documenting endangered languages in Africa and, in cases such as the Hadzabe, may be more viable and less intrusive than repeated research trips. Based on these findings, this remote fieldwork methodology may be implemented with other languages to augment and enhance documentary efforts to preserve the world's linguistic and intellectual diversity.

Effects of Nasal Deletion in the Nyere dialect of Kikuyu

James C. Wamsley and Robert Botne

The Nyere dialect of Kikuyu has experienced a complete loss of the nasal component of nasal-consonant clusters. Thus, the Mathira dialect of Kikuyu uses a homorganic nasal to mark Class 9/10 nouns while the nasal does not appear in Nyere.

	Mathira	Nyere	Translation
(1)	mbɔkɔ	bɔkɔ	'rabbit'
(2)	ndawa	dawa	'medicine'
(3)	ɲgoko	goko	'chicken'

The consequences of this loss of the nasal in historically NC clusters is twofold. First, the morphological realization of the Class 9 and 10 noun prefixes in Nyere is covert, marked instead by a floating mora that lengthens a preceding vowel, observable only when a Class 9/10 word such as *goko* 'chicken' is preceded by another word ending in a vowel.

- (4) *goko na moʃe:re*
chicken and rice
- (5) *moʃe:re na: goko*
rice and chicken

Second, the loss of the nasal has left traces of its former presence in the mutation of some consonants that occurred in NC clusters.

	Root Form	Mathira	Nyere	Translation
(6)	-ko	ɲgo	go	'firewood'
(7)	-tambe	ndambe	da:be	'wicks'

A similar phenomenon is observed in first person subject and object marking on verbs in which the former nasal morpheme has been lost and replaced with commensurate lengthening of a preceding vowel and concomitant mutation of the stem-initial consonant, seen in the first person habitual form in (8) and the addition of the object marker in (9b).

	Infinitive	1PS Habitual	Translation
(8)	ʏo-ʃe:dʒia	ne: dʒe:dʒayia	'I usually change'

- (9) **Infinitive** **Translation**
- (a) ko-rɔra 'to look at'
- (b) ko-.dora 'to look at me'

This paper describes and analyzes the complex set of phonological and morphological changes that have occurred in Nyere as a consequence of the reduction of all NC clusters to C. The analysis also shows how nasals within the noun or verb stem have caused assimilation of the stem-initial consonant in nasality, a process that has become fossilized in some cases, as the motivating nasal of a stem-internal NC cluster has also been deleted. The result is a complex set of realizations of subject and object markers, and classes 9 and 10 noun prefixes.

Interlocutor language ability as a factor on L2 sociolinguistic variables: The case of null objects in L2 French

Mark Black

As Geeslin and Long (2014) posit, the ability to speak in a second language requires a certain level of linguistic proficiency, but the ability to *live* in a second language requires a certain level of *sociolinguistic* proficiency. In classroom-based learners, effects of interlocutor native language (L1) on *grammatical* proficiency are found (Gurzynski-Weiss, 2010), but L2 *sociolinguistic* proficiency is expected to develop in the target-language environment through interaction with native speakers. However, interlocutor L1 effects have largely been ignored when evaluating sociolinguistic performance. In previous research, I found that intermediate-advanced study-abroad learners were susceptible to interlocutor L1 differences concerning French *ne*-retention, but near-native speakers (NNSs) showed no such susceptibility. I question whether these results maintain in NNSs concerning other sociolinguistic variables.

I thus examine possible interlocutor effects in a less robustly observed sociolinguistic variable: null objects (Lambrecht & Lemoine, 2005). In some contexts, spoken French allows object clitics to be null; in standard French, the object clitic is required:

1a) Standard French: *Tu aimes ce livre ? --Oui, je l' adore !*

you-2SG like this book yes I **it-MASC-SG** love

1b) Spoken French: *Tu aimes ce livre ? --Oui, j'adore !*

you-2SG like this book yes I **∅** love

'Do you like this book? --Yes, I love (it)!

I obtained oral production data from two groups of L1-English, L2-French NNSs. The first group spoke with two bilingual English-French interlocutors—one adopting an English identity and the other adopting a French identity, to determine whether NNSs' *perception* of interlocutor L1 factored in null object production. The second group spoke with a native French interlocutor and a highly advanced L2 French interlocutor, to see whether interlocutor *performance* factored.

Data analysis is ongoing. Differences in null object production across interlocutor types suggest that non-native interlocutors may inhibit learners' sociolinguistic proficiency; L1 interlocutors may be necessary for learners to demonstrate more native-like proficiency (compared to native-speaker controls). Furthermore, comparisons with other sociolinguistic variables (e.g., *ne*-deletion) are likely to reveal asymmetries in NNS production of these variables vs. native-speaker data—revealing implications for highly advanced learners wishing to achieve native-like performance.

Keywords: *second language acquisition; sociolinguistics; interlocutor effects; null objects*

Advanced L2 French speakers' realization of simultaneity

Billy Lebbs

The linguistic devices used in the representation of simultaneity, the co-occurrence of two or more events that overlap at least to a degree, has not received much attention in the field of SLA. While Schmiedtová (2004) examined its realization in L2 Czech, only Leclercq (2009) has examined it in L2 French and then focused only on means realized with regards to the micro- vs. macro-structure of the narrative and those used for the introduction of the first and second events. This pilot study, then, has three aims: 1) to determine the linguistic means advanced L2 French speakers employ to realize simultaneity, 2) to determine the role of grounding (as opposed to structure), and 3) to determine the viability of the tasks used to elicit data. The participants include four French NSs and six advanced NNSs speakers of French, all of whom completed two tasks: a narration task composed of two parts, a retell and a concurrent, on-line narration; and an immediate linguistic reflection. The two-part narration task used eight clips of the video "A Day in the Life of a Cat Owner" from the YouTube series *Simon's Cat*. For each clip, participants watched the clip, were asked "What happens in this scene?", and re-watched the clip after being asked "Describe the scene while you're watching it." This was followed by an immediate linguistic reflection targeting forms predicted to be used in the expression of simultaneity. The results indicate that 1) while advanced L2 speakers pattern the same as L1 speakers in terms of the expression of simultaneity, both grounding and narration task play a role in its realization; 2) both narration tasks are well-suited to the elicitation of instances of simultaneity; and 3) the NNSs were only sometimes aware of the reasons for their linguistic choices.

Keywords: L2 acquisition, simultaneity, L2 French, interlanguage, tense/aspect

Neutral vowel epenthesis in new speakers of Picard

Amber Panwitz

Many minority languages in France have seen a sharp decline since WWII, but in the Hauts-de-France, activists for the *langue d'oïl* Picard have begun grassroot revitalization efforts. This project compares the grammar of different generations to see if new speakers are developing the nuances of the Picard phonological system.

The Picard neutral vowel /e/ is similar in its epenthesis patterns with those of the French schwa, following a general *loi de trois consonnes* or a three-consonant limit in a segmental string that necessitates epenthesis, but the surface epenthesis patterns differ showing differing hierarchies in the underlying phonological constraints. Auger (2004) proposes a partial grammar in (1), which ranks the constraints that are relevant to the Picard clitic+verb domain.

1. Align-L (σ , PPhr), Morph-Cont >> Dep-V >> SyllCon >> Align-R (σ , PrWd)

To test the acquisition of these constraints, I administered a repetition task to native Picard speakers, to a transitional generation of speakers and to L2 Picard learners. I tested epenthesis with four consonants, two interacting pronominal clitics and a verb beginning with two consonants that cannot syllabified as an onset. Set 1 only tests licit-syllable-contact (e.g., /ʒt/) and the variables are epenthesis site within the pronominal clitics rendering (a) violated.ALIGN-R (σ , PrWd) and (b) non-violated.ALIGN-R (σ , PrWd), and then epenthesis or no epenthesis within the verb rendering violated.MORPHCONT⁽¹⁾ and non-violated.MORPHCONT⁽²⁾. Set 2 follows the same pattern, but with only illicit syllable contact (SYLLCON) in the targeted structure (e.g., /ʒl/).

Data analysis is ongoing, but suggests that with enough exposure to Picard, younger speakers can correctly order their phonetic constraints, but this is not the norm. New speakers seem instead to rely on the perceived stereotype of the grammar. It seems that more input and more support for these languages will be needed to preserve this language for another generation.

Keywords: Minority Languages, SLA, Phonology

Qui perd sa langue perd sa foi:
Contact-Induced Change in the Functional Categories of New England French

Laura Demsey

The French-speaking communities in the New England region of the United States have a complex past and present. The Francophone population there today is a fraction of its original size and continues to dwindle. Due to bilingualism with English and the minority status of French in the area, New England French has the potential for extensive contact-induced influence from English, which may often be seen in its grammar.

The structures explored in this study relate to definite determiner and preposition usage, where it diverges from 'standard' French grammar. This study examines grammatical borrowing of these functional categories among native speakers of French in two New England speech communities: Lewiston, Maine and Manchester, New Hampshire. Three phenomena are examined via a series of tasks (guided conversation, translation, targeted elicitation) administered to a small set of participants:

- Locative prepositions and definite articles with toponyms, e.g. *au Maine* vs. *dans le Maine*
- Inalienable possession with body parts, e.g. *je me lave les mains* vs. *je lave mes mains*
- The superlative, e.g. *l'homme le plus riche du monde* vs. *le plus riche homme du monde*

The hypothesis is that the participants will follow English word order and grammatical rules due to the transfer from English into their French definite determiner and prepositional systems. I also hypothesize that those who most frequently produce English-like structures are younger speakers with the least exposure to French and the least frequent, most contextually limited use of French. Results from this pilot study suggest that speakers do have the kinds of influence from English that is predicted, and that the speakers with the least exposure to French produce the largest amount of English grammatical borrowings.

Agentless Modality Mood selection in Epistemic and Deontic *must* in Persian

Narges Nematollahi

This study investigates the mood selection of the Persian auxiliary modal *bāyad* ‘must’ in its epistemic and deontic readings and discusses its implications for the general theory of mood. Adopting Kratzerian semantics for modals in terms of modal base (MB) and ordering source (OS), we argue that different from Giorgi & Pianesi’s (1997) and Villalta’s (2008) proposal for mood selection in Romance, in Persian it is not the presence or absence of an ordering source which determines the mood. Rather, the mood is determined based on whether the complement proposition is decided in the modal base or not, similar to Farkas’ (2003) proposal. While the (un)decidedness of the complement proposition in epistemic *bāyad* is checked against the speaker’s/attitude holder’s doxastic worlds and thus involves an agent, in deontic *bāyad* the (un)decidedness of the complement proposition is checked in the circumstantial MB, which is independent of any agent, and thus, we argue that mood selection in deontic *bāyad* represents the case of an agentless modality.

As (2-5) show, *bāyad* in its epistemic meaning always selects subjunctive mood, no matter if the corresponding non-modal sentence is in simple present tense (2), in present perfect (3), in simple past (4) or imperfective past (5). Deontic modals, however, select subjunctive mood only in present/future contexts (6-8), and select indicative/counterfactual in past contexts (9-10): counterfactual mood in Persian does not have a distinct form; rather, it is identical in form to imperfective past.

Building on Nematollahi’s (2018) analysis of mood selection in complement clauses in Persian, we analyze the mood selection of epistemic *bāyad* by comparing it with doxastic predicates, and the mood selection of deontic *bāyad* through comparison with desire predicates. We conclude that due to its doxastic modal base, mood in epistemic *bāyad* is selected based on the degree of certainty that is conveyed for the truth of the complement proposition, whereas deontic *bāyad*, due to its circumstantial modal base represents a case where mood is sensitive to tense, but it is independent of agents.

Epistemic *bāyad*

2 <i>injā bāyad ziyād bārān bi-āyad</i> here must a lot rain come. SUBJ.PR “Here, it must rain a lot.”	simple present
3 <i>mādar digar alān bāyad rafte bāšad sar-e kār</i> mother by now must gone. SUBJ.PF to work “By now, mother must have gone to work.”	present perfect
4 <i>parvande-ye man bāyad avāset-e mehr rafte bāšad barāye chek</i> file-EZ my must mid Mehr gone. SUBJ.PF for check “My file must have been sent for checking in mid September.”	simple past
5 <i>Sām ruz-i 3-4 sāʔat bāyad tamrin-e piyāno karde bāšad</i> <i>Sām</i> every day 3-4 hours must practice-EZ Piano done. SUBJ.PF “ <i>Sām</i> must have been practicing the piano for 3-4 hours every day”	imperfective past

Deontic *bāyad*

6 <i>bāyad har ruz be madrese beravad</i> simple present must every day to school go. SUBJ.PR “He must go to school every day”	
7 <i>bāyad fardā be ketābxāne beravad</i> future must tomorrow to library go. SUBJ.PR “He must go to the library tomorrow”	
8 <i>barāy-e inke betavānad keyk boxorad, bāyad qablan šām xorde bāšad</i> present perfect in order to is able. SUBJ cake eat. SUBJ.PR must previously dinner eaten. SUBJ.PF	

“In order (for Sām) to have permission to eat some cake, he has to have eaten dinner first.”

9 *Sām diruz bāyad be ketābxāne miraft. simple past*

Sām yesterday must to library go. **IND/COUNT** “Sām had to go to the library yesterday.”

10 *Sām hafteye piš har ruz bāyad dars mixānd imperfective past*

Sām week-EZ last every day must study. **IND/COUNT** “Sām had to study every day last week.”

After the Disaster: A Comparative Bilingual Sentiment Analysis of Twitter Response to Hurricane Maria

Zoe Railing

The impact left by Hurricane Maria after it made landfall on Puerto Rico on September 20, 2017 is still being felt on the island today. In this paper, I will perform a comparative sentiment analysis on tweets in English and Spanish in order to discover how the response has differed according to the language used and how much time had passed since the storm hit. In order to do so, I will employ machine learning techniques to classify the language data coming from two corpuses of English and Spanish tweets respectively. Up to this point, little research has been done that relates directly to Hurricane Maria and its impact, and in this paper I aim to address this from the angle of language and the politics of Puerto Rico.

A Concept-Based Approach to the Instruction of Mood Selection in Spanish

Megan DeCleene

This study aims to provide a starting point for future investigations within a concept-oriented framework by comparing the mood selection of L2 learners of Spanish following traditional vs. concept-based instruction. While previous studies have compared the mood selection of learners to that of native speakers (e.g., Lubbers-Quesada, 1998; Gudmestad, 2012), the current study focuses solely on the interlanguage of learners to provide insight on how concept-based instruction might influence the acquisition of mood selection. Four sections of a fourth semester Spanish course will be assigned to one of two instructional conditions, either traditional instruction or concept-based instruction, and complete a preference task once before instruction, one week after instruction, and again one month after instruction. It is anticipated that the mood selection of participants from the concept-based instructional condition will be characterized by fewer linguistic factors due to the pragmatic nature of mood selection encouraged by this type of instruction. Additionally, it is expected that the verbalizations of the participants who receive concept-based instruction will reveal initial signs of the progression of meaning to form mappings guided by the one-to-one principle to those guided by the multifunctionality principle.

Keywords: Spanish; mood selection; concept-based instruction; one-to-one principle; multifunctionality principle

The Construction of French Gay Identity in *Têtu* Magazine

Andrew Karsten

While borrowing from the increased study of gender as a sociolinguistic variable, studies treating questions of sexuality and language have been relatively infrequent until recently, which is even more true of sociolinguistic work in French. This study is a contribution to attempt to bridge the gap between approaches from scholars in literature and linguists in analyzing sexuality in language. Literary works, such as Provencher's *Queer French* (2007), address critical issues in sexuality research, but do not address sociolinguistic inquiries with empirical weight; while linguists studying sexuality in works such as Bucholtz & Hall's *Theorizing identity in language and sexuality research* (2004), may lack perspectives from critical theory, which could reveal aspects of identity overlooked by linguists.

The current study examines four issues of the French gay-interest magazine, *Têtu* and seeks to answer the question: How is French gay identity constructed and defined through language in *Têtu* magazine. The current study is based off ideas from critical theory, which permit a more precise analysis of linguistic phenomena and their function in constructing community identity. My hypothesis was that French gay identity in *Têtu* could be characterized through themes of materialism, globalism, femininity, historical persecution, modern persecution, gay-specific language, and sexual desire. Tokens were also coded by type of community repertoire (adapted from Colombo & Senatore 2004) and the dimension of identity being appealed to (from Buchotz & Hall 2005).

The results of this study were surprising, as sexual desire was the least common means of appealing to gay identity of the themes coded for in this project. Of the 121 tokens, current persecution (51 occurrences) was the most common means of constructing gay French identity. In comparison, the other identity themes were rather marginal. These findings warrant further work, namely a discourse analysis of French gay male speech, to understand how this community performs and constructs sexual identity through discourse.

Gender Variation with Thematic Roles in an 18th Century Moravian German Corpus

Michael McGuire

The project involves a computational socio-linguistic analysis of gender variation in thematic roles in a corpus of an 18th century Moravian German memoirs from a community in Bethlehem, Pennsylvania. The preliminary analysis is part of a larger dissertation project being advised by Professor Julie Auger and involves a comparison of thematic roles used to refer to people before and after a major social, religious, and economic change that occurred in the 1760s. Before the change, gender segregation and a communal economy allowed women in the community to have comparatively more freedom, more autonomy, and more leadership and occupational opportunities that were highly unusual for the 18th century. This changed drastically in the 1760s with gender desegregation and discontinuation of the communal economy. As a result, women began to be restricted to a more gender-typical role for the time-period.

As part of a religiously motivated tradition, nearly all Moravians wrote or dictated personal autobiographical memoirs describing their own lives and their relationship with God and the Moravian church. This tradition included men, women, and people of all different ethnic, economic, and social backgrounds. The result is a unique collection of memoirs from which a corpus can be built.

For a preliminary analysis, a small pilot corpus of 8 memoirs was manually annotated and NPs involving people were tagged with different thematic roles. The pilot corpus includes 2 memoirs each from men and women written before and after the 1760s. After gender desegregation in the 1760s, women reference men using grammatical constructions where men are in thematically agentive roles 15% more often (35% before vs. 50% after). This compares to other types of thematic roles such as: patient, theme, experiencer, and percept. I also hypothesize that women, when describing themselves or other women may be less likely to use constructions that involve semantically agentive roles. Preliminary data are inconclusive, but this should become clearer as more data are added.

Key Words: computational linguistics, socio-linguistics, gender variation, corpus, thematic roles

Dialectal Differences as a Lens into Phonological Variation and Language Change

Silvina Bongiovanni

The study of dialectal variation allows us to examine what happens to linguistic systems as they diverge and permits an investigation of the details of variability in parallel systems. As such, regional variation provides a window into the principles that underlie language differences, language innovation and language variation and change. In this talk, I will present two studies that target Spanish nasality.

The first study focuses on the production of the palatal nasal in Buenos Aires Spanish. Previous work has argued that /ɲ/ is absent from the phonological inventory in this dialect (e.g. Colantoni & Hualde 2013), and as a result, *huraño* /urajo/ 'unsociable' and *uranio* /urano/ 'uranium' are pronounced alike. For this purpose, the speech of 33 speakers of BAS (15 males, 17 females; divided in four age groups: 15-19, 20-29, 30-45, 45+) was examined. The findings show that /ɲ/ and /nj/ are not fully merged in production, as older male speakers produce a contrast, especially when the task requires attention to the phonological target. The results also reveal that female speakers are at the forefront of language change. All in all, this study shows that /ɲ/ and /nj/ may be merged for most speakers, but some speakers appear to keep traces of the contrast when encouraged to do so.

The second study examines dialectal differences with regard to anticipatory vowel nasalization and word-final nasal consonants in Spanish. Spanish dialectology observes that dialects with a preference for velarized variants of /n/ (e.g. Caribbean dialects) have phonologized nasality in the pre-nasal vowel, due to weakening of the word-final consonant (Cedergren & Sankoff, 1975; Terrell, 1975). Despite these long-held claims, comparisons across Spanish dialects are still lacking. To this end, 28 speakers from Santo Domingo (Dominican Republic; 10 men/18 women) and 26 from Buenos Aires (Argentina; 8 men/18 women) were recorded within the dialectal regions, using a nasometer (a split-channel microphone system which records signals separately but simultaneously.) Findings show that Dominican speakers start nasalizing the vowel earlier, thus providing experimental evidence to the patterns reported in the sociolinguistic literature. Contrary to explanations of vowel nasalization as a mechanism to compensate for the lenition of the nasal consonant, the dialects are not different in terms of weakening of the nasal consonant. Taken together, the results indicate that Caribbean dialects may present more extensive anticipatory vowel nasalization albeit not more weakened consonants. These findings challenge how the envelope of variation has been operationalized previously and indicate that Spanish anticipatory vowel nasalization and nasal weakening co-vary but one is not a pre-requisite for the other.

These two studies show that acoustic information is not necessarily lost from the signal, but rather is reorganized. Dialects at different stages of change provide critical information about the mechanisms underlying these processes. The detailed acoustic analyses offer insights into the linguistic system that cannot be achieved by impressions alone, and provide a crucial example of the contribution of an instrumental investigation to language variation and change.