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# Variation, contact, and change in Boston Spanish: how social meaning shapes stylistic practice and bilingual optimization

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**Abstract:** This paper examines variation in six features of Spanish, testing the hypothesis that outcomes of language and dialect contact are shaped by the differing social meaning of linguistic variables. Two of the study's variables are strongly associated with aspects of identity and style. Four others are poorer signals of social meaning, despite constituting sites of crosslinguistic and/or dialectal difference. In the speech of life-long residents of the contact setting (Boston, MA), the weak features have converged with English grammatical norms. In contrast, the strong features show persistence of dialectal and crosslinguistic differences, suggesting that socially weaker variables are more susceptible to reconfiguration by bilingual optimization strategies. The effect of contact on strong variables, by comparison, is to amplify their already powerful links to ideologies of personal and group style. While strong variables are not immune to contact-induced change, modification in their use is primarily social, rather than cognitive, in nature.

**Keywords:** contact; salience; indexicality; linguistic style; bilingual optimization

## 1 Introduction

While the city of Boston, Massachusetts is deservedly famous for being home to an iconic variety of American English, it is arguably under-appreciated as a city of multilinguals. According to recent Census data, one in three Bostonians speaks a language other than English at home, and one of every two students in Boston Public schools reports having a language other than English as their first language (U.S. Census Bureau, 2011–2015 American Community Survey, BPDA Research Division Analysis). In addition, many of the languages other than English spoken by large numbers of Bostonians, such as Chinese, Haitian, Portuguese, Spanish, and

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Vietnamese, are used by speakers whose geographic origins range widely. For example, while many Portuguese-speaking Bostonians have ancestry in Portugal or the Azores, more recent immigration has brought large numbers of Lusophones to New England from Brazil and Cape Verde. Boston is, therefore, not only worthy of attention as a site of language contact but also of dialectal contact. The present paper examines these themes as they relate to Spanish, which is the language other than English spoken by the largest number of Bostonians. Of particular interest is the way in which the outcomes of contact may be shaped by the social meaning of linguistic variation. More precisely, this paper explores the possibility that the *varying indexical potential* of different sociolinguistic variables plays a role in their trajectory in contact settings.

To help illustrate what is meant by the phrase ‘varying indexical potential,’ consider again that famous variety of American English mentioned above, *Boston* (or, more generally, *New England*) *English*, as it is represented in pop-culture. There is a famous moment in the Oscar-winning film *Good Will Hunting* in which the title character Will, a young genius working as a janitor at MIT, humiliates Clark, a snobbish graduate student who is trying to impress other bar patrons with his knowledge of the American Revolutionary War. After Will dismantles Clark’s arguments, revealing him for the charlatan that he is, Will’s buddy, Morgan, who like Will is a native of South Boston (aka *Southie*), says to the gathered group with satisfaction, ‘*My boy’s wicked smart.*’ In Morgan’s delivery of the line, which features the intensifier usage of *wicked*, meaning ‘very,’ the last word of the phrase, *smart*, is decidedly r-less. This scene has been widely memorialized in the memeosphere, and most memes include the r-lessness of *smart*, often representing it orthographically as *smaht*. Googling the line brings up, in addition to all of the memes, a link for ‘*Southie Accent*’, which, if clicked on, returns images of t-shirts for sale that contain the line from the film, along with various other folk-linguistic takes on New England English, including a ‘*Boston accent lesson*’ from Matt Damon, who played Will in the movie, in an appearance on *The Late Show with James Corden*. When asked by Corden to ‘*Teach me a little Boston phrase*’, Damon replies with a tutorial on hiatus-resolving or intrusive r: “You would say, like, the word ‘Ma’, right, for your mother. You would say ‘Is Ma downstairs?’. But if that word was followed by a vowel, you’d have to add an r. So you’d say ‘Is Ma-r-upstairs?’.” Popular culture representations like these make it clear that *rhoticity* and *intensifier-wicked* play a prominent role in stereotypes of New England English. But as linguists well know (Stanford 2019, i.a.), these are by no means the only variables that distinguish English as it is spoken in New England. Other such variables include *PALM-fronting*, the *LOT/THOUGHT* merger, “*Broad-a*” in *BATH*, and the *MARY/MERRY/MARRY* distinction. However, despite their importance in delineating dialect boundaries, these other features are clearly less salient to English speakers. A Google search of the *MARY/MERRY/MARRY* distinction, for

instance, doesn't return memes or talk show clips, but instead turns up the kinds of dialect maps that are mostly of interest to linguists. The characteristic linguistic features of New England English are, in other words, not equivalently socially meaningful. Some are more strongly associated than others with the social categories of *New Englander*, *Bostonian*, or (to either the shame or pride of locals) *Masshole*.

This observation – that features which collectively characterize particular ways of speaking may individually vary in their social prominence – is neither novel nor restricted to Anglophone America. The fact that “speakers are more aware of some variables than others” (Trudgill 1986: 11) has helped linguists better understand many topics across a number of settings, including language change (Labov 1972), stylistic practice (Eckert 2008), inter-speaker accommodation (Giles and Ogay 2007; Trudgill 1986), dialect acquisition (Nycz 2016), covariation between variables (Cole 2020; Erker 2022; Oushiro and Guy 2015), sociolinguistic cognition (Rácz 2013), and perceptual dialectology (Preston 2010). What this research makes clear is that in a set of features that characterize a particular regional or social style of speaking, certain features stand out, like the tallest peaks of a mountain range or the brightest stars in a constellation. These differences in prominence, in turn, have implications for how features may be used as signals, or resources, for social meaning. Those that are more *salient*, *recognized*, or *noticed*, to use various terms that appear in the research cited above, are stronger signals for expressing aspects of identity, attitude, or intention. This is what is meant by saying that sociolinguistic variables have *differing indexical potential*. Some are *stronger*, and some are *weaker* in this regard.

This study examines variation in several features of Spanish. Two are strong, and four are weak in social meaning. Those in the first category are (1) the weakening of syllable-final /s/, e.g., the fricatives in words like *mismo* ‘same’ and *pintas* ‘you paint’ are not pronounced with an alveolar constriction or are deleted entirely, and (2) the neutralization of liquids, e.g., *alma* ‘soul’ and *arma* ‘weapon’ are produced as homophones. The four socially weak variables are: (1) subject pronoun presence/absence, (*tú*) *pintas* ‘you paint’, (2) subject pronoun position, *tú pintas* ~ *pintas tú* ‘you paint’, (3) general subject position, *María pinta* ~ *pinta María* ‘Mary paints’, and (4) vowel choice in filled pauses, i.e., the use of either /e/, /a/, or /ə/ as the vocalic nuclei of conversational-floor-holding hesitations. The first two features, *s-weakening* and *liquid neutralization*, are, like *rhoticity* and *intensifier-wicked*, rich in social meaning. They are strongly associated with geographic origins and routinely figure in folk-linguistic commentary on different ways of speaking Spanish (Triana 2018; Walker et al. 2014). They are particularly salient in stereotypes about Spanish in the Caribbean, as opposed to Mainland Latin America or Europe. Comments like the following, which occurred during sociolinguistic interviews with participants in *The Spanish in Boston Project* – the primary data source for the present study – clearly illustrate the prominence of these two features in the Hispanophone dialectal terrain:

**Cova (a pseudonym)** – a 20-year-old female, was born in Medellín, Colombia, and moved with her family to Boston at age 4.

In describing the speech of Puerto Ricans, Cova remarked that “*Ehm hablan cortado como que como tú [tá], No como tú estás, siento que cortan las eses.*”, ‘Um, they speak in an abbreviated way, like ‘how are you’ [the first syllable and final /s/ of the verb ‘estás’ are not pronounced], not like ‘how are you’ [the non-reduced form of the verb is produced], I feel like they cut off their -S’s.’

**Pacífica** – a 33-year-old female, was born in Puerto Rico and moved to Boston at 1 year old.

In describing the Spanish of Colombians, she commented, “*They pronounce the word the way it’s supposed to be pronounced, versus we, Puerto Ricans, tend to like cut off half of it, or like add a -oa or -ao or -eo at the end. They don’t tend to do that, they put the s where it goes.*”

**Cristobal** – a 40-year-old male originally from Bogotá, Colombia, arrived in Boston at age 27.

His commentary on the Spanish of Caribbeans included: “*Los dominicanos o los puertorriqueños no pronuncian la ere. La cambian por una ele. So ellos no dicen preguntar dicen preguntal.*”, ‘Dominicans or Puerto Ricans don’t pronounce r. They switch it with l. So they don’t say ‘preguntar’, instead, they say ‘preguntal.’

**Natalia** – a 21-year-old female of Nicaraguan ancestry, was born in Boston.

When asked how she might impersonate the speech of Puerto Ricans, she replied, “*Voy pa Puelto Lico.*” *E- Yeah. En vez de decir la ‘r’ dicen la ‘l’.*”, ‘I’m going to Puerto Rico. Yeah. Instead of saying the ‘r’, they say ‘l’.’

Many other participants similarly pointed to *s-weakening* and *liquid neutralization* when asked by interviewers about what differentiates ways of speaking Spanish. These features also figure prominently in pop culture. For example, one of the standout hits on the second studio album by Puerto Rican musician Bad Bunny, who was the most listened to artist on *Spotify* – in any language – in 2020, 2021, and 2022, was *P FKN R*. The song is a bombastic expression of pride towards Puerto Rico and deliberately plays with both /s/ weakening and liquid neutralization. In the lines ‘*Yo no necesito prendas para brillar/Muchas puyas y no se atreven a tirar/pero PR es chiquito y siempre te van a pillar*’, coda /s/ is categorically deleted, and the word-final flaps in the verbs *brillar*, *tirar*, and *pillar* are realized as laterals. In a different, particularly clever line, in which the singer demands ‘*Dime quién tu eres*’, ‘Tell me who you are,’ the deleted /s/ in the verb renders it homophonous with the word for the sound r, *ere*.

By contrast, not a single participant in the project seems particularly attuned to the study’s weak features. When discussing the theme of dialectal variation, no participant explicitly mentioned subject pronoun presence/absence, the position of

subjects in relation to verbs, or variation in the vocalic nuclei of filled pauses. And yet, despite their lack of prominence among Spanish speakers, these other features, much like the socially weaker features that characterize New England English, are nonetheless sites of structured variation, differentiating both regional varieties of Spanish and distinguishing the grammatical norms of Spanish from those of English. Of particular importance to dialectal variation is how these features are used in the Spanish-speaking Caribbean, where speakers have been shown not just to weaken /s/ and neutralize liquids at higher rates, but also use overt (as opposed to null) pronouns and place subjects before (rather than after) verbs at significantly higher rates than in Mainland locales (Canfield 1981; Erker et al. 2017; Lipski 1994; Otheguy and Zentella 2012; Resnick 1975; Zamora Munné and Guitart 1982). Cross-linguistically, the study's features represent sites of contrast in that American English speakers tend to produce rather than delete /s/, maintain phonetic distinctions between liquids, use subject pronouns at very high rates, almost never use post-verbal subjects, and fill pauses with *uh* and *um*, as opposed to *em* and *am*, which are the preferred pause-fillers of Spanish monolinguals (Erker and Bruso 2017). In a community characterized by wide-ranging Spanish dialectal variation and also by widespread Spanish-English bilingualism – as is the case in Boston – these features are good candidates for assessing the outcomes of contact. They provide a vantage point for observing either the maintenance or reconfiguration-via-contact of dialectal and crosslinguistic differences.

More importantly for the present paper, the study's six variables set the stage for exploring the idea that contact outcomes depend on the differential social meaning of linguistic forms. While each of the six features represent potential sites for contact-induced change, they differ in that the strong variables are, because of their greater prominence, more potent as *stylistic resources* than the weak variables. That is, /s/ and *liquids* are more powerful tools than *pronouns*, *subject-positions*, and *filled pauses* for performing what has been called the *identity function* of language (Joseph 2010). This refers to the fact that while all human beings rely on their language faculty to formulate thoughts and express propositions – the *cognitive* and *communicative* functions of language, respectively – we also use language to express belonging, signal attitudes, and orient ourselves to situations. To quote Joseph (2010: 10): “The members of a community, however defined, instinctively develop ways of sending and interpreting signals that do not merely show, but actually create, maintain and perform the bonds they have with one another.”

In a community characterized by contact between various groups, the linguistic features that already strongly differentiate styles of speaking between and within the groups arguably become even more robust as signals of identity and affiliation. At the risk of wearing out mountain metaphors, it is as if linguistic contact, in the same way that the meeting of tectonic plates can drive the tallest of peaks even higher into the

sky, amplifies the indexical potential of already socially strong features. For example, while differences in rates of /s/ weakening would be relevant to the sociolinguistic dynamics of an interaction between, say, a customer and a sales clerk in a market in San Juan, Puerto Rico, the social signaling potential of /s/ is arguably amplified in a market in East Boston, where a Puerto Rican customer may have their purchases rung up by a sales clerk of Mexican origin. It is unlikely that this kind of contact-induced amplification of indexical potential could be expected to occur with the study's weak variables, precisely because they tend to fly below Spanish-speakers' sociolinguistic radars, to borrow a (mixed) metaphor from Kim Potowski (personal communication).

This process, by which already strong features become even stronger signals of identity in dialect contact settings, may act as a countermeasure to another well-known component of contact dynamics, namely that of *bilingual cognitive economy* (Muysken 2013; Silva-Corvalán 1994; Thomason 1986). To quote Silva-Corvalán (1994: 207): "In language contact situations bilinguals develop strategies aimed at lightening the cognitive load of having to remember and use two different linguistic systems." Such *bilingual optimization strategies* (Muysken 2013) serve to streamline production and perception and to ease learning across linguistic systems (Thomason 1986). A strategy of particular relevance to Spanish-English contact settings is "*match between L1 and L2 patterns where possible*" (Muysken 2013: 709). The contact setting thus places potentially competing pressures on the bilingual. One is to use linguistic forms as signals of identity, intention, and affiliation. Another is to maximally generalize linguistic behavior by bringing the grammatical norms of different linguistic systems into closer alignment. A prediction that arises from this tension, that is, between principles of cognitive economy, on the one hand, and the identity function of language, on the other, is this: Socially weak variables are more likely to undergo structural convergence than strong ones, because reconfiguration in their use is of limited social significance. The cognitive upside of convergence, as it were, comes at no social cost when a variable is socially weak. The corollary of this prediction is that strong features are less likely to undergo structural convergence. However, while this corollary may accurately predict contact outcomes in some settings, it is not the case that strong features are resistant to contact-induced change *per se* – indeed, dialectal leveling in strong features certainly can occur (Trudgill 1986). Instead, the expectation is that because the social implications of shifts in their use are greater, strong features will be more actively managed by speakers and more directly connected to their linguistic ideologies and attitudes. In other words, when contact-induced change arises in strong variables, the motivation for the innovation will be primarily social, rather than cognitive, in nature.

The remainder of this paper will be devoted to an empirical test of these ideas. At the heart of the analysis to follow is a case-study of the use of the study's six variables

as they occur in the speech of four pairs of Spanish-speaking Bostonians, two each with origins or ancestry in Colombia, Dominican Republic, El Salvador, and Puerto Rico. One member of each pair was either born in or arrived to Boston as a very young child. The other member of the pairs arrived to Boston in adulthood and had been in the city for a relatively short time when they were interviewed for the project. The results of the child/adult-arrival comparisons are presented and then interpreted in the larger context of the Spanish in Boston. The paper concludes with a summary of the primary results and suggestions for future research.

## 2 Data & methods

As mentioned above, the data for the current study are drawn from the *Spanish in Boston Project*, a federally-funded survey initiative developed to provide a sociolinguistic description of the linguistic behavior and attitudes of Spanish-speaking Bostonians. The project's primary data are a collection of audio-recorded sociolinguistic interviews, conducted in Spanish, with 192 individuals who vary across a range of relevant social categories, including age, sex, geographic origin or ancestry, years spent living in Boston, educational attainment, and occupation, among others. In addition to the interviews, the project also contains answers from each participant to an extensive questionnaire regarding language attitudes and habitual language use. The present analysis will focus on (1) the six linguistic variables described above, as they occur in the speech of interviewees, (2) four questionnaire items that relate to language usage and attitudes, and (3) two social factors related to degree of experience with the contact setting.

### 2.1 Linguistic variables

**Syllable final /s/** – 658 tokens of coda /s/ were segmented in *Praat*, and the presence or absence of alveolar frication was determined in consultation with waveform and spectrographic evidence, following the methods detailed by (Erker and Reffel 2021). Tokens were coded as *weakened* when there was no indication of alveolar frication in locations in the speech stream where coda /s/ was presumed to be underlyingly present according to standard accounts of Spanish phonology.

**Liquid neutralization** – For this variable, 648 instances of phonologically underlying syllable-final flaps were inspected acoustically and impressionistically. In accordance with the protocol developed by Vidal-Covas (forthcoming), tokens were coded as either having *rhotic* or *lateral* realizations.



**Subject pronoun expression** – 2,750 finite verbs that could occur with a subject personal pronoun were coded for either pronoun *presence* or *absence* in accordance with (Otheguy and Zentella 2012), e.g., *yo digo* ‘I say’ was coded as pronoun *present*, while *digo* was coded as pronoun *absent*.

**Subject pronoun position** – The syntactic position, either *pre-* or *post-verbal*, of 862 overt pronominal subjects was recorded, e.g., *yo digo* ‘I say’ was coded as *pre-verbal* while *digo yo* was coded as *post-verbal*. Data for this variable are restricted to declarative utterances, as it is possible that preverbal pronominal subject position in *wh-* questions is a potentially salient feature for Spanish speakers.

**General subject position** – This refers to the syntactic position, either *pre-* or *post-verbal*, of 736 non-pronominal subjects, e.g., *María llegó* ‘Mary arrived’ was coded as *preverbal* while *llegó María* was coded as *post-verbal*.

**Filled pauses** – 604 non-silent, non-lexical hesitation phenomena were identified and segmented in accordance with the methodology of Erker and Bruso (2017). The vowel quality of vocalic portions of filled pauses was coded as either /e/, /a/, or /ə/.

Note that the numbers of tokens listed above refer only to the data sets associated with the eight speakers who make up the country-matched, adult-/child-arrival case study here. Analysis of these data will be related to larger data sets in the Results section. Each of the variables except for liquid neutralization has been analyzed in a previous study of the data from the *Spanish in Boston Project*. These earlier analyses consider more speakers and many more data points, providing context for the results of the case study presented here. That is, while a main thrust of the analysis will be to describe the behavior of eight individuals (the four adult-/child-arrival pairs), another goal we will be to relate their behavior to the larger sample of (192) participants in the project as well as to other relevant studies.

## 2.2 Questionnaire items

Responses to four questionnaire items will be considered in the analysis:

- ¿Cuál(es) idioma(s) habla [o hablaba] con su(s): *papá, mamá, hermanos, hijos menores, hijos mayores, amigos, jefe, compañeros de trabajo, compañeros de escuela, esposa/o o novia/o*? ‘Which language(s) do [or did] you speak with your: father, mother, siblings, younger children, older children, friends, boss, coworkers, classmates, spouse or boy/girlfriend?’ Participants were asked to answer *español* ‘Spanish’, *inglés* ‘English’, or *ambos* ‘both’ to this question.
- ¿Cree que el español que hablan los X es diferente? ‘Do you think that the Spanish of X is different?’, where the value of ‘X’ refers to the following country-based modifiers:



Colombianos, Dominicanos, Guatemaltecos, Mexicanos, Puertorriqueños, Salvadoreños, Peruanos. Participants were asked to answer *yes*, *no*, or *not sure*.

- *¿Cree Ud. que la gente de habla hispana en Boston debe seguir hablando el español de sus compatriotas?* ‘Do you think the Spanish speakers in Boston should continue speaking Spanish like their countrymen?’ Participants were asked to answer *yes*, *no*, or *not sure*.
- *Si alguien dijera que Ud. suena como un X, ¿le gustaría?* ‘If someone said that you sound like an X, would you like it?’, where ‘X’ refers to the same-country based modifiers listed above. Participants were asked to answer *yes*, *no*, or *no opinion*.

## 2.3 Social factors

The analysis relies on two factors relating to life experience in the United States.

**Immigration Category** – In accordance with (Otheguy and Zentella 2012), participants were categorized as *Newcomer* if they had arrived in Boston after their 16th birthday and had been in the US for less than six years at the time of their interview. Those who arrived after their 16th birthday and who had been in the US for more than six years were considered to be *Established Immigrants*. Participants were classified as *US-Born* if they were either literally born in the US or arrived before the age of three. For participants of Puerto Rican origin, these categories were based on the individuals’ arrival to the mainland United States.

**Percent Life in the United States (PLUS)** – This variable is calculated by dividing the number of years a participant has lived in the US by their age, e.g., a 20 year-old who has been in Boston for ten years has a PLUS of 50 percent.

## 2.4 Structure of the analysis

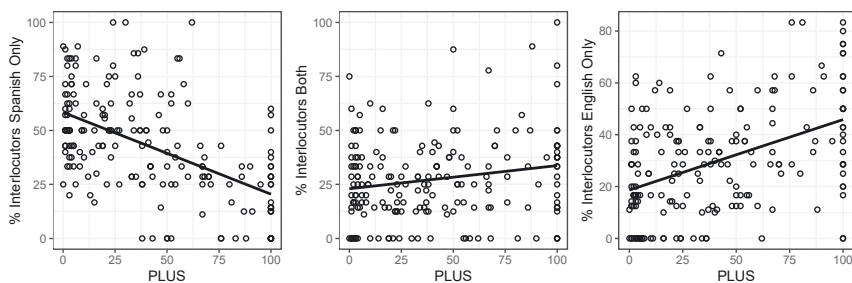
The preceding variables, questionnaire items, and social factors will be used to carry out a three-part analysis. First, the questionnaire data will provide a sense of how the overall project’s 192 participants use Spanish and English in their daily lives and also how they view issues related to dialectal variation. This will be followed by comparing four country-matched pairs of speakers along each of the study’s six variables. The four US-Born participants are, representing Colombia, Dominican Republic, El Salvador, and Puerto Rico respectively, *Cesar*, *Donaldo*, *Eduardo*, and *Priscila*. They are paired, respectively, with the Newcomers *Clemente*, *David*, *Emilio*, and *Pascal*. The third and final step in the analysis will be to relate the results of the pairwise comparisons to other relevant data in the Spanish in Boston Project as well as to other studies of Spanish in the United States.

### 3 Results

#### 3.1 Habitual language use and attitudes towards dialectal variation

As a first step towards testing the study's main hypothesis – that the varying indexical potential of sociolinguistic variables shapes their use in a setting of language and dialectal contact – consider how the 192 participants in the overall project responded to questions relating to habitual language use and dialectal variation. With respect to the first topic, it is clear that more time spent living in Boston correlates with greater bilingualism. Recall that participants were asked to describe which language – Spanish, English or both – they spoke with a number of interlocutors. Each participant's responses were converted to percentages in the following way: If a person reported speaking, for instance, exclusively Spanish with their mother, father, and siblings – which are three of the nine total interlocutors in the questionnaire item – both Spanish and English with their younger children, older children, friends, and significant other (four of nine interlocutors), and exclusively English with their coworkers and boss (two of nine), then the respective percentages would be 33, 44, and 23 for the variables *Percent Interlocutors Spanish Only*, *Percent Interlocutors Both*, and *Percent Interlocutors English only*. Figure 1 shows that when these variables are plotted in terms of the contact measure *PLUS*, percent life in the United States, three statistically significant trends emerge. Exclusive Spanish use significantly decreases with *PLUS*,  $r(189) = -0.54$ ,  $p < 0.001$ , while exclusive English use ( $r(189) = 0.45$ ,  $p < 0.001$ ), as well as use of both Spanish and English ( $r(189) = 0.19$ ,  $p < 0.01$ ) with interlocutors significantly increase.

With respect to dialectal variation, Figure 2 demonstrates near unanimity among participants in the belief that Spanish differs along national lines, a finding consistent with research showing that the nation-state figures prominently in categorizing Spanish dialectal variation in folk-ideologies (Callesano and Carter 2019;



**Figure 1:** Habitual language use with interlocutors.

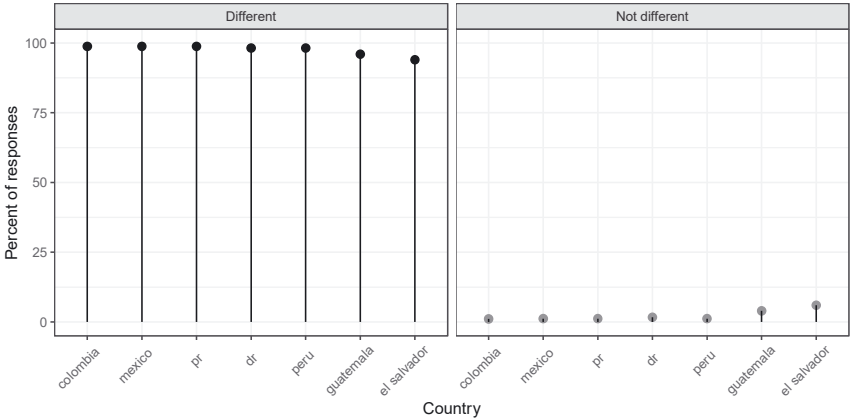


Figure 2: Country-based evaluations of Spanish being ‘different’ or ‘not different’.

Cestero and Paredes 2018), as well as in professional linguistic inquiry (Alba 2004; Lipski 1994; Yraola 2014). In the current study, the way of speaking Spanish of every national group included in the relevant questionnaire item – Colombians, Dominicans, Guatemalans, Mexicans, Puerto Ricans, Salvadorans, and Peruvians – was evaluated by participants as *different* at a rate of 93 % or higher.

To this context, we can add participants’ attitudes towards the maintenance, in Boston, of nationally differentiated ways of speaking Spanish (see Figure 3). To the question *Do you think the Spanish speakers of Boston should continue speaking like their countrymen?* 94 percent of participants responded *yes*. And when asked whether Spanish-speaking Bostonians should avoid using words that other Spanish speakers might not know, 76 percent said *no*.

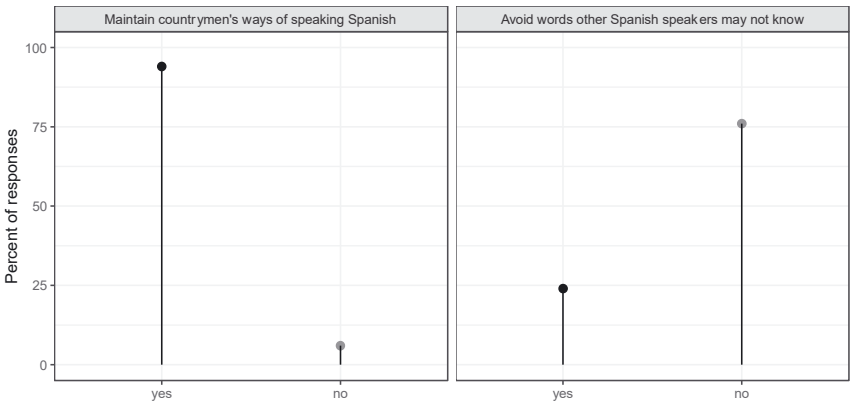
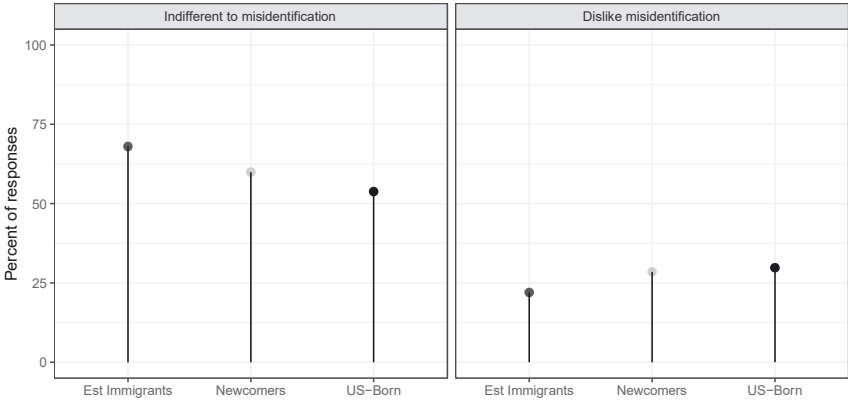


Figure 3: Attitudes towards maintenance of country-based differences.



**Figure 4:** Attitudes towards speech-based misidentification of national origin.

Finally, consider participants’ attitudes towards being potentially nationally misidentified on the basis of their speech in Figure 4. In response to the question ‘*If someone told you that you sounded like [a person of a different Hispanophone national origin than your own], would you like it?*’, sixty-three percent of participants expressed indifference, eleven percent said they would *like* it and twenty-six percent said that they would *dislike* it. Notably, indifference was lowest and dislike was highest among US-Born participants, indicating that this group has the strongest aversion to speech-based misidentification of national origin.

The preceding data provide strong quantitative evidence that the Spanish-speaking community of Boston, especially in terms of individuals born in the city, is characterized by both a high degree of bilingualism as well as strong own-national-group orientation towards different ways of speaking Spanish. Comments from the US-Born participants whose speech will be analyzed shortly serve as a qualitative complement to the quantitative data. For the sake of brevity, the comments are presented in English.

**3.1.1 Eduardo – US-born Salvadoran**

**(I)nterviewer:** Do you think Spanish speakers in Boston should continue speaking Spanish like their countrymen?

**(E)duardo:** Hmm, yes, yeah, yes.

**I:** If someone were to say you sounded like a Dominican, would you like it or would you feel offended?

**E:** Ah, I wouldn’t like it, only because I don’t think I talk like Dominicans.

**I:** Mexican?

E: Eh, I wouldn't like it.

I: Why?

E: Because everybody thinks that someone is, eh, that anybody that's Hispanic is from Mexico.

I: Puerto Rican?

E: Ah, I wouldn't like it. The same as a Dominican. I don't think I talk like a Puerto Rican.

### 3.1.2 Cesar – US-born Colombian

**(I)nterviewer:** Do you think Spanish speakers in Boston should continue speaking Spanish like their countrymen?

**(C)esar:** Yes, because I think that language should be maintained.

I: What distinguishes the way of speaking of a Colombian? That is, how can you know that a person is Colombian?

C: Um, because, uh, they have a lot of, they pronounce their s's, their r's and, uh, they have a very defined pronunciation. They really maintain the Castilian pronunciation, um, of old Spanish, in comparison to the rest of countries of the Americas, you know, like, you know, Puerto Ricans.

### 3.1.3 Donaldo – US-born Dominican

**(I)nterviewer:** Do you think the Spanish of Dominicans is different?

**(D)onaldo:** Uh, yes. The words are different and many of the letters are lost in the word when they speak.

I: Do you think Spanish speakers in Boston should continue speaking Spanish like their countrymen?

D: If it changes, it changes. They shouldn't have any ... I don't think they should have any intention, you know? However it comes out, it comes out.

### 3.1.4 Priscila – mainland US-born Puerto Rican

**Interviewer:** Do you think Spanish speakers in Boston should continue speaking Spanish like their countrymen?

**Priscila:** If you're Puerto Rican, you should speak Spanish like Puerto Ricans do. I'm going to speak Spanish like a Puerto Rican.

Priscila's response is a particularly clear instance of what Silva-Corvalán (1994: 168), channeling Weinreich, calls an '*act of language loyalty*'. Through such acts, individuals "rally themselves and their fellow speakers consciously and explicitly to

resist changes in either the functions of their language ... or in the structure or vocabulary.” There are, in the way that Priscila articulates this comment in the original Spanish, clues to how she might go about expressing her loyalty to *hablar español como los puertorriqueños*. She says, ‘*Si tú eres Puertorriqueño, debes hablar como los puertorriqueños. Yo voy a hablar español como los puertorriqueños.*’ In the utterance, Priscila categorically deletes coda /s/ and realizes the phonological flap of *hablar* as a lateral. Priscila’s response notably contrasts with that of Donaldo, who, while certainly not expressing explicit linguistic disloyalty, as it were, nonetheless indicates a seeming indifference towards change in the ways that Spanish is spoken in Boston. This difference between Priscila and Donaldo underscores the fact that while there may be strong quantitative evidence of prevailing loyalty to own-group linguistic practices in the overall data, some individuals may not fit the overall trend. We will revisit these issues in the Discussion section. Let us first consider the speech data.

### 3.2 Pairwise comparisons along six variables

Against this backdrop of Spanish-English bilingualism and nationally-based Spanish dialectal loyalty – both of which are notably robust among the US-Born – we can turn our attention to the study’s four speaker pairs and their use of the six linguistic variables of interest. The structure of the comparisons is as follows: For each variable, each member of the country-matched, Newcomer-US-Born pair is compared to the other with respect to their rate of use of the variants of the variable via a chi-square test, with SPEAKER as the independent variable. The six variables and four pairs of speakers produce twenty-four total comparisons.

**Filled pauses** – While all four Newcomers prefer to fill pauses with the non- central vowel [e], all of the US-Born participants strongly favor the use of [a] or [ə]. Each of the four chi-square tests returned statistically significant results for this variable at the  $p < 0.001$  level.

**Pronoun Presence versus Absence** – Three comparisons returned significant results for subject pronoun use at the  $p < 0.05$  level or lower, with US-Born Priscila, Cesar, and Donaldo using pronouns at higher rates than their recently arrived counterparts.

**Subject pronoun position** – All four US-Born participants used subject pronouns pre-verbally at higher rates than their Newcomer counterparts. Two comparisons for this variable, those for the Puerto Rican and Salvadoran pairs, were statistically significant at the  $p < 0.05$  level.

**General subject position** – The trend for pronominal subjects extends to subjects in general. All US-Born participants used preverbal subjects at a rate equal to or

higher than the country-matched recent-arrival. Two comparisons returned significant differences at the  $p < 0.05$  level or lower; US-born Priscila and Eduardo have significantly higher preverbal (non-pronominal) subject rates than *Newcomers* Pascal and Emilio, respectively.

**Coda /s/ weakening** – As expected, there are clear dialectal differences in weakening rates among the recent arrivals, with the Caribbean participants weakening at much higher rates. This pattern is largely conserved among the US-Born. While one inter-speaker comparison returned significant differences, David compared to Donaldo, it is worth noting that while Donaldo's 26.3 percent /s/ weakening rate is lower than his Dominican countryman David's (50.7 percent), it is nonetheless relatively high compared to the two US-Born participants of non-Caribbean origin, Eduardo and Cesar, who weakened /s/ at 9 and 6 percent, respectively, in their interviews. Insofar as Donaldo's apparent nonchalance towards the maintenance of country-based linguistic norms plays a role in the relative decrease of his /s/-weakening rate, he still weakens /s/ at nearly three times the rate of Eduardo and Cesar.

**Liquid neutralization** – Dialectal differences are largely conserved for this variable as well, with the non-Caribbeans strongly preferring rhotic rather than later-alized realizations of coda flaps. The Caribbeans, in contrast, routinely realized phonological coda flaps as laterals. None of the inter-speaker comparisons produced statistically significant differences for this variable.

These results, which are summarized in Figure 5 and Table 1, reveal a clear asymmetry in the distribution of significant inter-speaker differences: they are primarily concentrated in the study's weak variables. Of the twelve inter-speaker comparisons that produced significant results, only one occurred with a strong variable. Taken together the results constitute robust evidence in support of the idea that weak features are particularly prone to reconfiguration via bilingual optimization strategies. The US-Born participants' comparatively greater use of centralized vowels, overt subject pronouns, preverbal pronouns, and preverbal subjects in general brings each of these features into greater alignment with the grammatical norms of English. In contrast, the strong features show little to no evidence of convergence with English. Instead, they demonstrate strong continuity in and conservation of dialectal differences.

### 3.3 Related results and analyses

The preceding results can be enriched by considering them in relation to several other relevant analyses. For instance, Figure 6, based on data from Erker (in press),



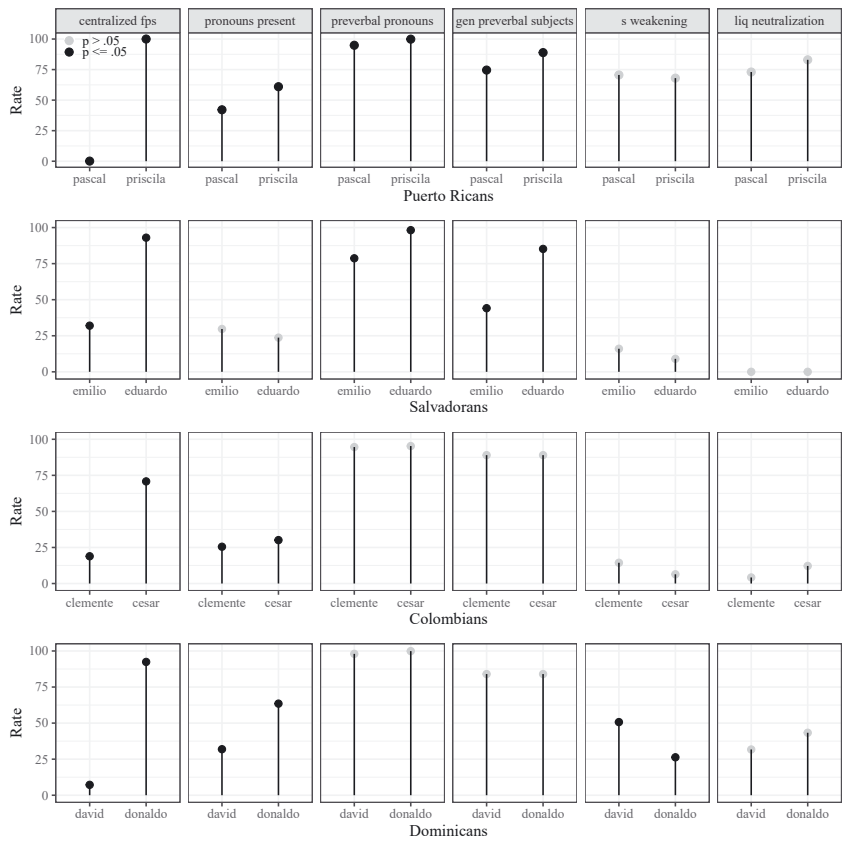


Figure 5: Pairwise comparisons across six variables.

shows that the pattern of structural convergence in subject pronoun use observed above is present in a much larger group of participants in the Spanish in Boston Project. A data set consisting of 25,271 verbs drawn from 80 speakers (including the 8 analyzed above in the paired comparisons) reveals a significant correlation between PLUS and pronoun use,  $r(78) = 0.24$ ,  $p < 0.001$ .

This trend runs parallel to the well-known findings of Otheguy and Zentella (2012), illustrated in Figure 7, whose analysis of the pronominal behavior of 140 Spanish-speaking New Yorkers (in a data set of over 60,000 verbs) uncovered a similar pattern of structural convergence in rates of pronoun use,  $r(138) = 0.3$ ,  $p < 0.001$ .

These large studies of subject pronoun use align well with a larger analysis of variation in filled pauses. In a study of 6,364 filled pauses produced by the same set of

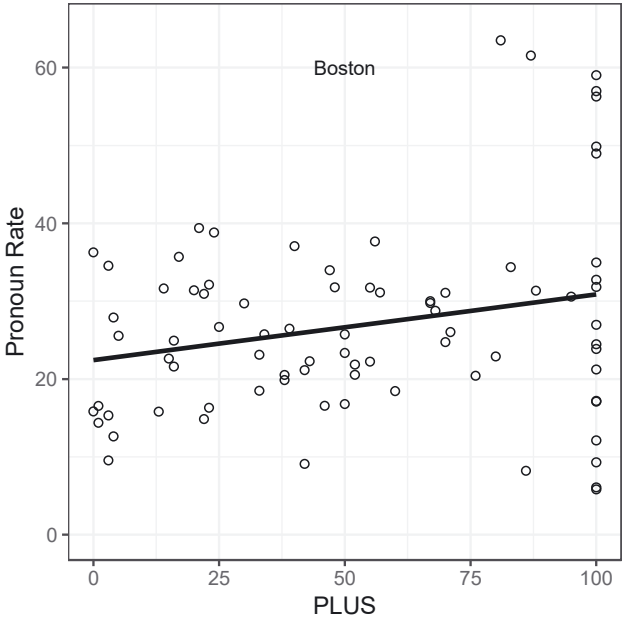
Table 1: Quantitative details of pairwise comparisons.

Variable	Age arrival USA	Central FPs	Pronouns present	Preverbal pronouns	Preverbal subjects	s-weakening	Liquid- neutralization
A. Puerto Rico							
Pascal	36	0	42.1	94.9	74.6	70.6	73
Priscila	0	100	61.1	100	88.9	68	83
Observations		150	421	222	96	150	168
$\chi^2$ test $p$ -value		***	***	**	*	$p = 0.72$	$p = 0.17$
B. El Salvador							
Emilio	20	32	29.7	78.7	44.1	16	0
Eduardo	0	93	23.7	98.2	85.2	9	0
Observations		60	479	129	86	150	52
$\chi^2$ test $p$ -value		***	$p = 0.15$	***	***	$p = 0.31$	NA
C. Colombia							
Clemente	30	18.9	25.5	94.7	89	14.4	12
Cesar	3	70.8	30.1	95.3	89	6.4	4
Observations		185	1,487	336	454	153	88
$\chi^2$ test $p$ -value		***	*	$p = 0.78$	$p = 0.95$	$p = 0.11$	24
D. Dominican Republic							
David	36	7.2	31.9	98	84	50.7	42
Donaldo	4	92.4	63.5	100	84	26.3	31.7
Observations		205	363	175	100	205	236
$\chi^2$ test $p$ -value		***	***	$p = 0.11$	$p = 0.99$	***	$p = 0.12$
Total		600	2750	862	736	658	544
observations							
n sig. results		4	3	2	2	1	0

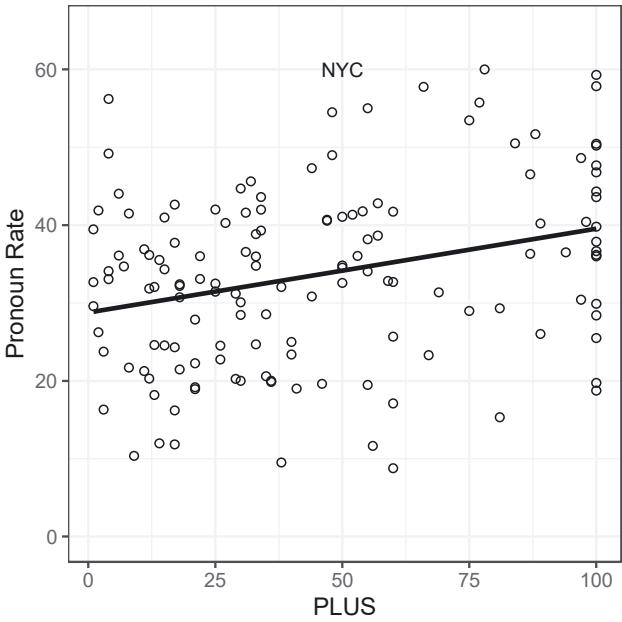
Note: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

80 Bostonians mentioned above, Erker and Vidal-Covas (2022) found that greater US life experience, as measured by PLUS, significantly correlates with increased use of centralized FPs ( $r(78) = 0.398, p < 0.001$ ), the same pattern observed in the paired speaker comparisons of the present case study. Figure 8 illustrates this trend.

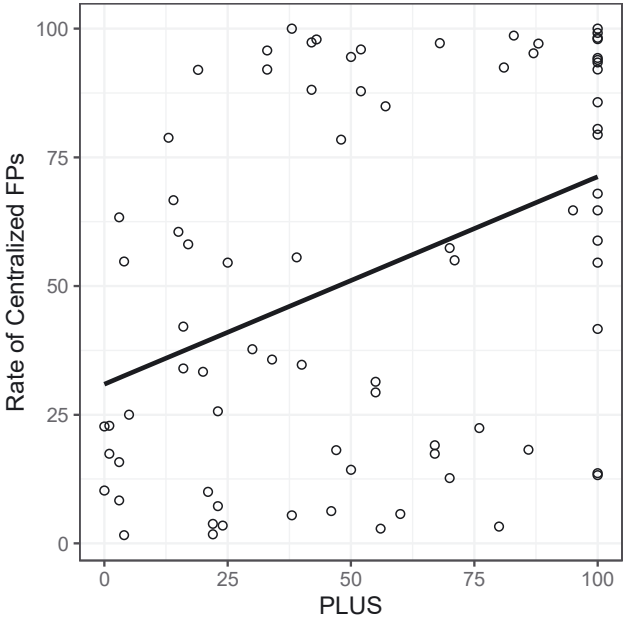
Finally, Figure 9 presents an analysis that combined data from speakers in New York and Boston (5,668 grammatical subjects drawn from 39 speakers), where Erker and Otheguy (2021) showed that greater life experience in the U.S. correlated with increased use of preverbal subjects,  $r(38) = 0.33, p < 0.04$ .



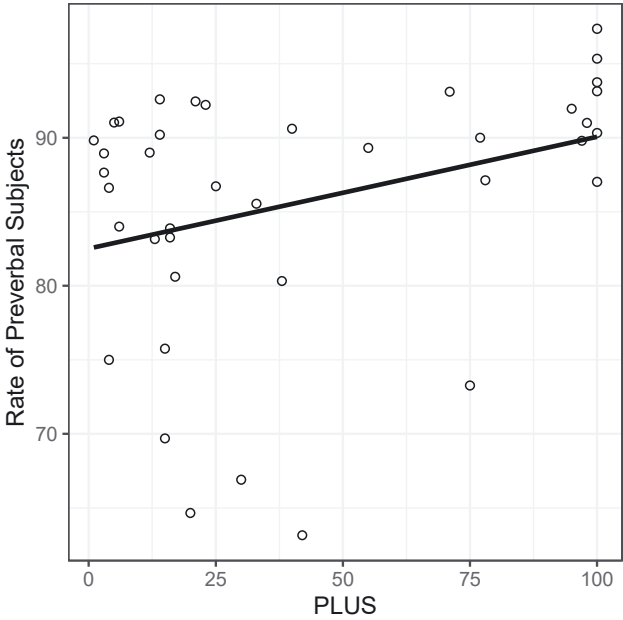
**Figure 6:** Relationship between PLUS and rate of pronoun presence among 80 Bostonians.



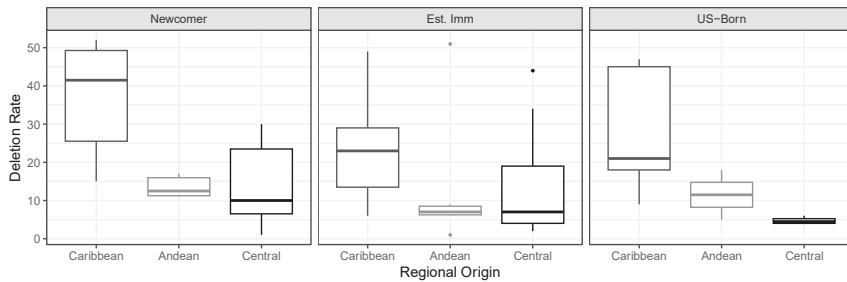
**Figure 7:** Relationship between PLUS and rate of pronoun presence among 140 New Yorkers.



**Figure 8:** Relationship between PLUS and centralized filled pauses among 80 Bostonians.



**Figure 9:** Relationship between PLUS and rate of postverbal subjects 39 speakers (14 New Yorkers, 25 Bostonians).



**Figure 10:** Rates of /s/ weakening by region and immigration category among 62 speakers (20 New Yorkers, 42 Bostonians).

The results of these additional studies, which paint a picture of contact-induced structural convergence across several socially weak variables in the Spanish of Bostonians and New Yorkers, contrast with larger scale analyses of the strong variable /s/-weakening in these communities. In a data set consisting of 7,054 tokens of coda /s/ drawn from interviews with 40 Bostonians and 22 New Yorkers, Erker and Otheguy (2021) found no evidence of structural convergence across immigration groups, as illustrated in Figure 10. Rather, speakers of Caribbean origin, from Newcomers to Established Immigrants to the US-Born, weakened /s/ at higher rates than those with origins or ancestry in Central and Andean regions of Mainland Latin America. ANOVAs comparing the weakening rates across immigration categories within each region returned no significant differences, despite significant differences between the regions overall ( $F(2,59) = 14.55, p < 0.001$ ).

## 4 Discussion

The preceding results, both those from the case study and from the related, larger analyses of data from Boston and New York, provide strong support for the proposal offered at the outset of this paper, which is that the differential social meaning of linguistic variables shapes their trajectories in contact settings. There is robust evidence that weak features are prime targets for bilingual optimization via structural convergence. The strong features, in contrast, show continuity in dialectal differences. But making sense of these results in the broader context of Spanish in the United States, in particular, and in relation to the outcomes of contact, in general, requires resisting the attractive simplicity of a generalization such as *In contact settings, weak features change while strong features don't*. Though this may be a good description of the patterns observed here, there is plenty of evidence of contact-induced change in strong features among Spanish speakers in the US. For example, there is evidence of intergenerational

dialectal leveling in rates of /s/ weakening among Salvadorans in predominantly Mexican communities in California (Parodi 2003; Villarreal 2014) and Texas (Aaron and Hernández 2007; Hernández and Maldonado 2012). Similarly, several studies show change in the robustly indexical variable known as *voseo* – which refers to the use of *vos*, as opposed to the more widely used *tú*, as a second-person singular pronoun. Contact-induced reduction in the use of *vos* has been observed among *voseantes* in Washington D.C. (Sorenson 2013), Houston (Lipski 1989), Los Angeles (Villarreal 2014), and the Pacific Northwest (Woods and Rivera-Mills 2012; Woods and Shin 2016).

A potential way to unify these seemingly disparate findings – that is, evidence of both stability and change in strong features – is to recall (and tweak) an important observation from Trudgill (1986: 11): “*In contact with speakers of other language varieties, speakers modify those features of their own varieties of which they are most aware.*” To this statement, we might add the phrase ‘*unless they don’t want to*’. What is obviously right about Trudgill’s observation is that it is in the use of strong variables – that is, those features of which speakers ‘*are most aware*’ – where the rubber hits the road for the identity function of language. And to be clear, Trudgill does not insist that speakers are obliged to accommodate in the direction of the ways of speaking of their interlocutors. Indeed, the theoretical framework in which Trudgill’s research on dialect contact is embedded, namely *Communication Accommodation Theory* (Giles et al. 1991), makes room for both accommodation towards as well as *divergence from* the ways of speaking of one’s interlocutors. As Giles and Ogay (2007: 294) write, “*In this way, social interaction is a subtle balance between needs for social inclusiveness on the one hand, and for differentiation on the other.*”

From this perspective, whether contact leads either to the leveling or reassertion of prominent inter-speaker linguistic differences – that is, to either change or continuity in strong features – depends on the social motivations of the individuals who live in the contact settings. To what extent are they motivated to achieve inclusion, and to what extent are they motivated to differentiate themselves? Individuals can be expected to vary widely along these dimensions, in relation to such factors as individual-level differences in life experience and personality, as well as in regards to more general features of the contact community itself, including its history of settlement and demographic makeup.

Consider once again Priscila’s comment that “*If you’re Puerto Rican, you should speak Spanish like Puerto Ricans do. I’m going to speak Spanish like a Puerto Rican.*” We have already noted that this strong expression of a desire for local differentiation, for speaking like a Puerto Rican, as opposed to like someone from some other Hispanophone locale, contrasts with the more muted response of Donaldo, who was somewhat indifferent when asked whether Spanish speakers in Boston should continue speaking like their countryman. But both Priscila’s strong expression of loyalty and Donaldo’s relative nonchalance contrast starkly with comments from

participants in Woods and Rivera-Mills' study of voseo among Hondurans and Salvadorans in Oregon and Washington, who express a clear desire for linguistic assimilation. It is worth quoting the authors and their participants at length:

As a way of integrating themselves into the predominately Mexican-American communities, Salvadoran and Honduran participants reported adopting and expanding the use of the pronoun *tú* in order to establish a sense of solidarity and communal acceptance. Several participants illustrated this as follows:

- “*Para no quedar mal y para integrar al grupo.*” (HON/F/36/1G) ‘In order to not leave a bad impression and to integrate into the group’ (our translation).
- “*Cuando llegué acá, adapté ciertos modos de hablar y actuar como mexicano sólo porque estaba, había recién llegado, quería aceptación.*” (HON/M/22/1G) ‘When I arrived here, I adapted certain ways of speaking and acting Mexican, only because I had recently arrived and wanted to be accepted’ (our translation).
- “*Tal vez para acomodarse a donde estén. Para no sentir tan diferente ... para ser parte de la gran corriente de la mayoría de personas.*” (HON/M/51/1G). ‘Perhaps in order to accommodate the situation in which they find themselves. In order to not feel so different ... to be part of the majority’ (our translation). (page 201)

In their expressions of desire for inclusion, these speakers seem rather unlike Priscila, whose own desire for differentiation is almost certainly shaped by the fact that Puerto Ricans are not a recently-arrived, minority Hispanophone group in Boston – as are Salvadorans and Hondurans in the Pacific Northwest – but rather are one among a number of national groups with large numbers and long settlement histories in the city. And yet, while the individuals in Woods and Rivera Mills' study substantially differ from Priscila with respect to their apparent social motivations, they are nonetheless all very similar to each other in one important respect: They have the same limitations as *stylistic agents* (Eckert 2008). That is, their capacity to make social moves with linguistic forms, in whatever varying directions they intend – to either achieve inclusion or differentiation, for instance – is similarly constrained by the indexical potential of language forms. Salvadorans in Washington wanting to more closely align themselves with the Mexican majority couldn't hope to do so by lowering their rate of post-verbal subjects or using fewer overt pronouns – both of which would represent structural accommodation by Salvadorans towards the grammatical norms of Mexican speakers. Rather, their goal of integration and acceptance can only be linguistically achieved via modification in their use of strong features, like *vos* or */s/*.

Priscila is stylistically restricted in a similar fashion. Recall that despite her strong expression of linguistic fealty to the ways of speaking of Puerto Ricans, Priscila nonetheless differs significantly from her recently arrived counterpart, Pascal, along



four different grammatical dimensions. What's more, her way of using pronouns, of placing subjects in relation to verbs, and of filling pauses not only distinguishes her linguistically from Pascal, it more closely aligns her Spanish with that of US-Born Dominicans, Salvadorans, and Colombians whose linguistic systems have, similarly to Priscila's, likely undergone optimization-induced structural convergence with the grammatical norms of English in these domains. Priscila's Spanish is, from a statistical and purely structural perspective, demonstrably different in several ways from that of recently arrived Puerto Ricans. But is Priscila's Spanish different from Pascal's in ways that are socially meaningful? Probably to a much lesser degree, this because her way of using strong features – of weakening /s/ and neutralizing liquids – aligns with a group style with which she intends to affiliate.

If *linguistic style* refers to “a clustering of linguistic resources that has social meaning” (Eckert 2018: 118), then weak variables like those examined here are arguably *not* elements of style despite the fact that they constitute sites of structured differentiation. In the absence of an appreciation of the fact that the variables in this study differ in their indexical potential and their associated availability as elements of style and social meaning, one might misconstrue Priscila's behavior as out of sync with her ideology. And one might also fail to see what she has in common with Salvadorans in the Pacific Northwest who wish to minimize the extent to which their linguistic practices distinguish them from those of the local linguistic majority. Indeed, it is clear that along those dimensions that are most available to Priscila as a stylistic agent, she makes good on her promise to ‘speak Spanish like Puerto Ricans’ much in the same way that Salvadorans in Washington suppress their use of *vos* – as opposed to their use of subject pronouns or post-verbal subjects – to achieve the social goal of integration in their own contact setting.

## 5 Conclusions

Scholars of linguistic contact often frame their research as an attempt to ascertain whether contact is causing or *inducing* change in certain domains of grammar, e.g., the lexicon, phonology, or syntax. From a purely structural perspective, the data analyzed here present somewhat of a puzzle in this regard. The linguistic behavior of US-Born Spanish-speaking Bostonians, when compared to that of recent arrivals to the city, shows evidence of both change and stability. From a purely structural vantage point, the evidence of change in pronoun use and subject-verb order, in contrast to the apparent stability in /s/ and liquids, invites potential generalizations regarding change and levels of linguistic structure: ‘*Morphosyntactic variables are more likely than phonological variables to undergo contact-induced change*’, one might be inclined to propose. While this statement would, generally speaking, be an

accurate description of the present data – change in the arguably phonological variable of filled pauses notwithstanding – what actually matters about the variables studied here, we believe, is something other than the levels of linguistic structure at which they occur. This is not what either binds or differentiates them in the contact setting. Instead, what matters is their social meaning.

The socially weak variables haven't just changed, they have done so in a particular way. Their use has been brought into greater alignment with analogous structures of English. This has happened not because they are morphosyntactic in nature – again, filled pauses represent a counter argument to this claim – it is because they are socially weak. Their muted value as social signals increases their exposure to bilingual optimization strategies, through which they are reconfigured at little to no social cost. The strong features, in contrast, have not converged with English norms, but instead show conservation of dialectal as well as crosslinguistic differences. But this has not happened because these variables are phonological in nature. Rather, dialectal continuity in their use is a reflection, via stylistic practice, of the attitudes of a community whose members generally place a high value on the maintenance of nationally defined ways of speaking. In other communities, in which there is a premium on integration rather than dialectal differentiation, leveling in strong features has occurred. Understanding these different outcomes doesn't require different theories of contact for different settings or levels of linguistic structure. Instead, it requires an appreciation of the fact the sociolinguistic terrain has peaks and valleys, and that language users navigate in relation to the former rather than the latter.

Future study of Spanish in the US and of contact in general will benefit from continued investigation of the differing indexical potential of linguistic forms. In doing so, it will be important to go beyond indirect measures of the salience of linguistic variables, which we have relied on for the present study. While the explicit (non-)identification of specific features in the linguistic meta-commentary of language users is a strong indicator of their folk-ideological prominence (or lack thereof), as are their roles in pop-cultural representations of linguistic personae and style, more empirically direct methods for the establishment of indexical potential would be welcome, *i.e.*, one can imagine matched-guise experiments that systematically manipulate a broad set of features in order to locate them along a continuum of salience. Additionally, while there is wide-ranging acknowledgement of the fact that sociolinguistic variables are not equivalently salient to language users, we would welcome further theorizing on this topic that attempted to synthesize existing proposals for taxonomies and accounts salience. Overall, we are confident that more deliberate mapping of sociolinguistic landscapes in terms of socially strong and weak features would, for the study of variation, contact, and change, be *wicked smaht*.

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