LANGUAGE AND DIALECT CONTACT IN SPANISH IN NEW YORK: TOWARD THE FORMATION OF A SPEECH COMMUNITY

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Subject personal pronouns are highly variable in Spanish but nearly obligatory in many contexts in English, and regions of Latin America differ significantly in rates and constraints on use. We investigate language and dialect contact by analyzing these pronouns in a corpus of 63,500 verbs extracted from sociolinguistic interviews of a stratified sample of 142 members of the six largest Spanish-speaking communities in New York City. A variationist approach to rates of overt pronouns and variable and constraint hierarchies, comparing speakers from different dialect regions (Caribbeans vs. Mainlanders) and different generations (those recently arrived vs. those born and/ or raised in New York), reveals the influence of English on speakers from both regions. In addition, generational changes in constraint hierarchies demonstrate that Caribbeans and Mainlanders are accommodating to one another. Both dialect and language contact are shaping Spanish in New York City and promoting, in the second generation, the formation of a New York Spanish speech community.*

1. INTRODUCTION. The Spanish-speaking population of New York City (NYC), which constitutes more than twenty-five percent of the City's total, traces its origins to what are linguistically very different parts of Latin America. For example, Puerto Rico and Mexico, the sources of one of the oldest and one of the newest Spanish-speaking groups in NYC respectively, have been regarded as belonging to different areas from the earliest efforts at dividing Latin America into dialect zones (Henríquez Ureña 1921, Rona 1964). Puerto Rico belongs to the Caribbean, which on the basis of a variety of phonological and morphosyntactic features is consistently regarded in Spanish dialectal studies as a separate zone, different from the Latin American Mainland, which includes several subregions, Mexico among them (López-Morales 1992). Both of these regions are amply represented in the six leading groups of Spanish speakers in NYC: the Caribbean by large numbers of Dominicans, Puerto Ricans, and to a lesser extent Cubans, and the Mainland by Colombians, Ecuadorians, and Mexicans.

Given that Spanish speakers from different countries and dialectal zones are in daily interaction with one another in New York, a question that naturally arises is whether the linguistic differences that they initially bring to the City tend, with the passage of time and under the pressure of dialect contact, to weaken or perhaps level out altogether. Moreover, because Latinos in NYC interact not only with speakers of varied dialects of Spanish but also with speakers of English, the question of language contact also

arises, that is, whether English is another force shaping Spanish in the City. In this article, we use one of the most widely studied features of Spanish dialectology, the variable use of subject personal pronouns in finite clauses, to answer both questions in the affirmative. We demonstrate that both dialect contact and language contact play a role in forming the special character of Spanish in NYC by leveling its dialectal differences and shifting its pattern of pronominal usage toward greater similarity with the English pattern, thereby promoting the formation of a New York Spanish speech community in the second generation.[1]

Following common practice in the study of the alternation in Spanish between the presence and absence of subject personal pronouns, we use the term NULL PRONOUN when the subject pronoun is absent, as in 1, and OVERT PRONOUN when it is present, as in 2.

    (1)   toco/tocas/toca/tocamos/tocan el piano
          'I/you$_{inf}$/he, she, you$_{form}$/we/they, you$_{form}$ play the piano'
    (2)   yo toco/tú tocas/él, ella, usted toca/nosotros, nosotras tocamos/ellos, ellas,
          ustedes tocan el piano
          'I/you$_{inf}$/he, she, you$_{form}$/we/they, you$_{form}$ play the piano'

As generally expected in a language with rich verbal morphology such as Spanish, the alternation between overt and null subject personal pronouns occurs in all geographic and social varieties of the language. But while the factors that condition this alternation have been reported to be the same or similar in several of the varieties studied (Bentivoglio 1987, Cameron 1993, 1995, Silva-Corvalán 1982, 1997a), the frequencies of nulls and overts tend to vary considerably between countries and regions (Lipski 1994:241, López-Morales 1992:137). Consequently, the Spanish that enters NYC with newcomers from Latin America is not simply geographically heterogeneous in general terms, but heterogeneous specifically with regard to subject pronoun rates. The difference in the pronoun rates of newcomers to NYC provides a baseline of differentiated variable use that makes this an ideal feature for the study of contact between dialects.

The variable use of subject pronouns is also a good feature for the study of contact between languages. Subject pronouns in English and Spanish resemble one another in important ways. They have similar basic deictic meanings in both languages. Moreover, in the singular, both languages have distinct first-, second-, and third-person forms, while in the plural both languages have distinct first and third persons (see example 2 above). In addition, in both languages the pronouns can appear either before or after the verb, and although the preference for preverbal position is quite obvious in English, placing the pronoun before the verb is also the overwhelming statistical preference in Spanish.[2]

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[1] Under a definition that is widely accepted in research on language maintenance and shift (Veltman 2000) as well as in sociological studies of immigration (Portes & Rumbaut 2001), the first immigrant generation consists of the people born in the homeland. The second generation is made up of those born in the new land (third-generation members, whom we do not study here, are the children of the second generation, or the grandchildren of the first-generation immigrants). Those who immigrated as very little children are sometimes included in the second generation, as if they had been in fact born in the new land. When immigrant generations are defined cross-sectionally in apparent time, as they usually are, instead of longitudinally in real time, there is no implication that a first-generation speaker is necessarily the parent of, or older than, a second-generation speaker.

[2] In our data, for example, 98.5 percent of overt subject pronouns (62,582 out of 63,511) appear in preverbal position.

Within this context of patently noticeable morphological and syntactic similarities, a well-known and important difference stands out, namely that pronominal usage is much more variable in Spanish than in English or, to put it another way, that overt subject pronouns are much more frequent in English, approaching, according to many analyses, nearly obligatory status in a large number of contexts.[3] Correspondingly, the variables that predict the appearance of overt and null pronouns are quite different in Spanish and English. The transparent morphological and syntactic similarities, coupled with the critical differences in frequency and conditioning factors, make it reasonable to test the proposition that patterns of pronominal usage in English are exerting an influence on those of Spanish in NYC.

2. METHODOLOGY. Issues of language and dialect contact in Spanish in NYC are addressed here from the standpoint of variationist sociolinguistics (Chambers 2002, Guy 1993, Labov 1963, 1994), an approach that has been applied to the study of grammatical features in US Spanish (Silva-Corvalán 1986, 1994), including the study of subject personal pronouns (Bayley & Pease-Alvarez 1997, Cameron 1995, Flores-Ferrán 2004, Lapidus & Otheguy 2005a, Silva-Corvalán 1982). In the present work, as in variationist sociolinguistics in general, research is based on speech data taken from tape-recorded interviews, and relies on two kinds of measures: (i) frequency of occurrence, or occurrence rates, of the feature under study (in this case, the frequency of overt pronouns as a percentage of all pronouns, known as the overt pronoun rate, or simply the pronoun rate) and (ii) hierarchies of linguistic and extralinguistic factors that influence, to greater or lesser extent, the probability of the occurrence of the feature (in this case, the probability of occurrence of an overt pronoun).

2.1. VARIABLES AND CONSTRAINTS. To study the linguistic and social contexts that influence the appearance of overt pronouns we rely on the Statistical Package for the Social Sciences (SPSS), which is particularly nimble in handling very large corpora and provides univariate analyses (i.e. means, percentages), bivariate analyses (i.e. correlations), and multivariate analyses (i.e. multiple regression, logistic regression). SPSS also provides information on interactions, which are difficult to analyze in VARBRUL, the statistical program favored by many variationists. In SPSS, the terms DEPENDENT and INDEPENDENT VARIABLE are used. Our dependent variable is the use of a null or an overt pronoun. Our independent variables are the sets of linguistic or sociodemographic constraints associated with different probabilities of occurrence of the dependent variable. In most Spanish varieties studied so far, the independent grammatical variables linked to the probability of occurrence of an overt pronoun include the person and number of the verb (Silva-Corvalán 1994), the verb's tense (Silva-Corvalán 1982, 1997b), the type of clause where it appears (Morales 1997), the discourse status of the subject's referent (Cameron 1996, Silva-Corvalán 1982, 1994), and the lexical content of the verb (Enríquez 1984, Silva-Corvalán 1994). Analyses that rely on VARBRUL would refer to these independent variables as factor groups (Bayley 2002a, Guy 1993). Within our independent variables, and within VARBRUL's factor groups, there are

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[3] The position that overt pronouns are much more frequent in English than in Spanish is consistent with the generative treatments of English as a non-pro-drop language (Chomsky 1982, Jaeggli & Safir 1989) and with the generative analyses that consider most instances of English verbs without observable subjects as cases of null subjects rather than null pronouns (Haegeman 1990). It is also the standard position adopted in variationist work on Spanish pronominal variation (Travis 2007). And it is not inconsistent with analyses of speech data that find that, under certain conditions, English permits null subjects (Cote 1996, Henry 2002).

constraints that can be ranked as to their effect on the dependent variable. For example, within the independent variable Person, both Barrenechea and Alonso (1977) and Silva-Corvalán (1994) found a greater probability of overt pronouns appearing in the first-, second-, or third-person singular persons than in the persons of the plural, where singular and plural persons are constraints; within the variable Clause, Morales (1997) found a greater probability of overt pronouns appearing in object relative clauses than in main clauses, where main clause and object relative clause are constraints; within the independent variable Tense, Silva-Corvalán (1982) found a greater probability of overt pronouns appearing with imperfects and conditionals than with preterites and presents, where imperfects, conditionals, and preterites are constraints.

Our use of the term independent variable to mean the same as factor group, which is not unusual in the sociolinguistic literature (Bayley 2002a:123), serves to highlight the contrast with the dependent variable, and reflects the fact that we pay close attention to the ranking of constraints within independent variables as well as to the ranking of the independent variables themselves (Poplack & Tagliamonte 1999, Tagliamonte 2002: 751ff.). Hierarchies of independent variables answer questions such as whether, with respect to its influence on the dependent variable, Tense is ranked as more influential than Clause, while hierarchies of constraints ask questions such as whether, again with respect to influence on the dependent variable, imperfect tense is ranked higher than preterite tense, or whether object relative clause is ranked higher than main clause. The use of the term independent variable has the additional advantage of making the methods and findings of this type of linguistic research more accessible to a wider scholarly audience, for whom these are the standard terms. Most important, as Bayley (2002b: 1) notes after comparing various statistical packages, 'any logistic regression program, including VARBRUL, will produce essentially equivalent results'. In this article we show that a full understanding of the variable use of subject pronouns in Spanish, and of language and dialect contact in NYC, cannot be achieved without the full array of variationist techniques. The simple tabulation of overt pronoun rates, as in the recent analysis by Otheguy and Zentella (2007), sheds some light on matters related to language contact, but it is less illuminating regarding issues of dialect contact and speech-community formation. To bring these issues into sharp relief, variable hierarchies and constraint hierarchies are needed.

2.2. SELECTION OF INTERVIEWEES. Our database, created for the most part during the period between 2000 and 2004, contains more than three hundred interviews. From these, we have created separately stratified samples of twenty-four Cubans, twenty-two Colombians, twenty-five Dominicans, twenty-four Ecuadorians, twenty-three Mexicans, and twenty-four Puerto Ricans living in NYC. The interviewers, either the authors or our graduate students, have been, with very few exceptions, of the same national origin as the speaker who was interviewed. The stratification criteria used to create the sample were: (a) Latin American or NYC birth, (b) age, (c) age of arrival in NYC, (d) years of residence in NYC, (e) level of education, (f) level of English skills, (g) social class, (h) extent of use of Spanish in general and in specific domains, (i) extent of use of Spanish with Latinos from one's own country, and (j) extent of use of Spanish with Latinos from countries other than one's own. Following these stratification criteria we selected from our database a total of 142 interviews that we analyze for the present study, with a particular focus on sixty-seven speakers.

2.3. CORPUS AND METHOD OF CODING. The corpus culled from the 142 transcripts consists of approximately 63,500 tokens of finite clauses. For each of these, we code

whether the finite verb appears with a null or overt subject pronoun, that is, the dependent variable that is the focus of all analyses presented here. In addition, each of the 63,500 clauses is coded for the following ten independent linguistic variables, which are potential predictors of the probability of appearance of an overt pronoun. (A short name used for ease of reference appears in the parentheses after each variable.)

- Genre of discourse (Genre)
- Person and number of the verb (Person)
- Tense-Mood-Aspect of the finite verb (Tense)
- Reflexive or nonreflexive use of the verb (Reflexive)
- Specific or nonspecific reference (Specific)
- Discourse connection between verbs (Connect)
- Type of lexical content of the verb (Lexical)
- Clause type where the verb appears (Clause)
- Appearance of the verb in a set phrase (Set phrase)
- Section of the interview where the clause is found (Picture)

The variable Genre refers to whether the finite clause under analysis appears in a speaker's narrative. The variable Connect is the familiar switch-reference variable, expanded to take into account also whether the verb has the same tense form as the previous verb, following Bayley & Pease-Alvarez 1997. The variable Picture refers to whether the verb appears in a brief section that, in some interviews, included a picture-based questionnaire about lexical usage (for an unrelated project) or in the main, free-conversation section of the interview. The other independent variables have titles that are self-explanatory.[4] These independent variables were selected, for the most part, because previous studies had found them relevant to the occurrence of overt pronouns (Barrenechea & Alonso 1977, Cameron 1996, Enríquez 1984, Silva-Corvalán 1982, among others).[5] The constraints that were coded for each of these ten independent variables are listed in the appendix.

In addition to coding each verb, each speaker was coded in terms of five independent social variables related to his or her general personal and sociodemographic characteristics: age, sex, education, social class, and socioeconomic status.[6] In addition, each speaker is coded for ten social variables related to the issues of language and dialect contact that we study here: national origin, regional origin, age of arrival in NYC, years spent in NYC, level of Spanish skills, level of English skills, extent of use of Spanish with types of interlocutors (father, mother, siblings, spouse, etc.), extent of use of

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[4] Several phonological variables for which we have preliminary codings have not been included in the regression runs of the present study, which focuses on grammatical variables. The precise phonetic detail of verbs ending in /s/, which is of interest in the study of Spanish pronouns, cannot be established with sufficient inter-coder reliability in a large corpus like ours, and will be addressed in subsamples of the corpus in future analyses. Also not included in our regressions is the grammatical variable known as Perseverance or Structural Priming, which proved relevant in some recent studies (Cameron & Flores-Ferrán 2004, Travis 2005, 2007).

[5] In ways that become clear when the regression analyses are discussed, nine of these ten variables (the exception is Specific) are relevant to our analysis of subject pronouns in Spanish, for at least one subgroup of the sample.

[6] Age categories are: teenager (age 13–19), young (20–39), middle age (40–59), and over 60. Education is coded in terms of whether the speaker had started elementary, secondary, college, or graduate school. Social class, a self report by the speaker, distinguishes between working class and middle class. Socioeconomic status (SES) is a derived measure constructed by us on the basis of the informant's self report on social class, education, and parents' education.

Spanish in various domains (home, work, etc.), and extent of use of Spanish with speakers from the same geographic origin, and from different geographic origins.[7]

2.4. THE ENVELOPE OF VARIATION. The finite clauses in which we study the alternation between overt and null subject pronouns constitute only part of the total number of finite clauses produced by the speakers who were interviewed. We include in the study only two kinds of finite clauses, which we regard as belonging inside what sociolinguists call the envelope of variation (Bayley 2002a:124). First, the envelope of variation includes all finite clauses found in the transcripts with a null subject pronoun in a lexical or syntactic environment where overts are also likely to occur. Second, and conversely, we include in the envelope all finite clauses found with an overt subject pronoun in a lexical or syntactic environment where nulls are also likely to occur. In other words, the study covers all and only clauses whose lexical and syntactic characteristics allow for high levels of variability between overt and null subject pronouns. Finite clauses where there is little or no variability between overts and nulls, that is, finite clauses where the overt or the null is obligatory or nearly obligatory, are outside the envelope of variation and excluded from the study. Also excluded from the study are clauses appearing with nonpronominal subjects, such as those with lexical or clausal subjects.

Following this procedure, we eliminate from the study all finite verbs that appear with a null subject pronoun (indicated with a zero) that makes reference to metereological conditions (*En Nueva York casi nunca Ø nieva antes de fin de año* 'In NYC it almost never snows before New Year's'), or to chronological periods (*Ø Hace cinco años* 'Five years ago'), or to inanimates (*Ø Se cayó*, making reference to a wall 'It fell', even though we would include it if it made reference to a person, 'She fell'). Likewise, we eliminate all subject-headed relative clauses with a null subject (*El hombre que Ø le vendió la casa a tu padre* 'The man who sold your father the house') and all clauses where there is an overt nominal or clausal subject (*Marta llegó ayer* 'Martha arrived yesterday'; *El señor que conociste ayer llamó* 'The man you met yesterday called'). These finite clauses with null pronoun subjects or with overt nominal or clausal subjects are outside the envelope of variation because Spanish speakers never, or very rarely, use overt pronouns in these types of clauses. Thus we never or very rarely find *En Nueva York casi nunca él nieva antes de fin de año*, nor do we find *Él hace cinco años*, or *Ella se cayó* (referring to a wall), or *El hombre que él le vendió la casa a tu padre*, or *Marta ella llegó ayer* or *El señor que conociste ayer él llamó*.

Also outside the envelope, and excluded from the study, are overts in phrases such as *qué sé yo* 'what do I know', since in this type of environment the corresponding null item, *qué sé Ø*, never, or rarely, occurs. In contrast, we consider as being inside the envelope and include in the study overts in focus or contrastive environments, for example, *Nosotros queríamos que asistiera pero ella no quiso ir* 'We wanted her to attend but she didn't want to go'. Although some researchers, including Elizaincín (2002), Suñer (2003), and Toribio (2000), suggest that such overts are obligatory and thus outside the envelope of variation, we include them in the envelope because it is

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[7] Age of arrival and years spent in NYC are continuous variables expressed in numbers of years. Variables related to language skills are based on a four-point Likert scale (poor, fair, good, and excellent); those related to extent of use of Spanish with types of interlocutors on a three-point scale (speak to this person in English, in both, in Spanish); those related to degree of contact with speakers from own or other country on a four-point scale (none, low, mid, high); those related to use of Spanish are dichotomous variables (speak Spanish a little, a lot).

not hard to find equivalent contrastive sentences with nulls, for example, *Ø **Queríamos** que asistiera pero Ø no **quiso ir***. More to the point, we include them in the study because in naturalistic speech data of the type used here it is very difficult to isolate with any degree of consistency a set of environments that can be reliably considered focus or contrastive where overts would be unmistakably obligatory. We thus concur with the findings of the study on focus and contrast in Spanish by Amaral and Schwenter (2005:125), who maintain that 'it is inaccurate to say that SPPs [subject personal pronouns] are obligatory in contrastive contexts'.

We base decisions regarding inclusion in the envelope on a distinction between environments of high and low variability, and not on one between absolutely variable and absolutely invariable environments. We do so to avoid what we regard as sterile discussions around whether the very low variability of the environments that we place outside the envelope is actually a case of zero variability, or whether the sporadic appearance of the nearly never-occurring form in these cases would constitute a case of ungrammaticality. For our analytical purposes, we need neither to establish nor to disprove that ***Ella se cayó*** 'It fell' (with reference to the wall) or *El hombre que **él** le vendió la casa a tu padre* 'The man who he sold your father the house' represent ungrammatical utterances. Instances of these utterances with overts do in fact occur in our data, but they are exceedingly rare (two or three in our whole corpus), and this is enough grounds to exclude them from a study focused on variability. In all of these environment types, and in others like them, variability between overts and nulls is so minimal that it is best for the analyst, from a practical point of view, to proceed as if there were no variability at all.

Our focus on types of lexical or syntactic environments makes clear that we do not decide on an ad hoc basis whether X particular finite verb with an overt pronoun in Y particular environment could have been used with a null in this individual instance of use, or vice versa, whether X verb with a null in Y case could have been used with an overt. Instead, we formulate, as described above, broad definitions of clausal and lexical types where variability is low enough to disqualify them from the study, and apply those definitions to each specific finite verb in order to decide whether it is to be coded and counted in the study, or passed over and neither coded nor counted.

In 3 below, we provide an extended illustration regarding envelope decisions based on a passage from our corpus.[8]

> (3) *Italics*: *The verb is outside the envelope.*
> **Bold: The verb is in the envelope**.
>
> (1) *Hace* cuatro años, (2) **estaba trabajando** tranquilamente en México para un despacho de contadores. Haciendo auditorías súper aburridas, um . . . auditorías financieras nada más etc. . . . y (3) **estábamos trabajando** para una compañía que se (4) *llama* AXS, que (5) *es* una agencia de publicidad, muy famosa en Nueva York, (6) **están** aquí en Madison y la Cincuenta y (7) **tenían** su oficina en México, (8) **eran** uno de nuestros clientes y (9) *fueron* los auditores de aquí en Nueva York, (10) **fueron** a México. Y (11) **yo había estado trabajando** con esa compañía, entonces un día, un domingo,

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[8] The names Antonio and AXS, and the address of AXS, have all been changed from the originals in order to preserve the speaker's anonymity. The verb numbers in the translation are meant to facilitate reading the original. Note that, as in any translation, there are cross-language mismatches as when, for example, some finite verbs in the Spanish original are nonfinites in English. The use of subject pronouns in the English translation does not necessarily reflect the Spanish usage.

el gerente que (12) *estaba* a cargo de esa empresa me (13) *habla* y me (14) **dice** 'No Antonio, (15) **tienes** que venir para que me (16) **ayudes** porque mañana (17) *vienen* los auditores de Nueva York' y como (18) **yo soy** el que más o menos (19) *hablaba* inglés ahí en el despacho, entonces (20) **quería** que (21) **yo fuera a hacer** traducción o ayudar a la comunicación ahí con ellos ¿no? (22) **Yo** la verdad no **sabía** absolutamente nada de la empresa, ni lo que (23) *estaba* pasando ni nada. Y ya, total que (24) **fui** . . .

<div align="right">(Speaker 346M, Mexican, Age 29, Years in NYC: 4)</div>

'(1) Four years ago, (2) I was happily working in Mexico for an accounting firm. Doing very boring audits . . . just financial audits etc. . . . and (3) we were working for a company (4) called AXS, which (5) is a publicity agency, very famous in New York, (6) they're here, on Madison and 50th, and (7) they had their office in Mexico, (8) they were one of our clients, and (9) the auditors went from here in New York, (10) they went to Mexico. And (11) I had been working with that company, then one day, on a Sunday, the manager who (12) was in charge of that company (13) calls me and (14) says ''Antonio (15) you have to come (16) to help me because tomorrow (17) the auditors from New York are coming'', and since (18) I am (19) the one that more or less spoke English in the firm, so (20) he wanted me (21) to do translations or help to communicate with them, right? Frankly (22) I knew nothing about the firm, or (23) what was happening or anything. And so, anyway, (24) I went . . .'

EXCLUDED 1 . . . *Hace* cuatro años . . . All verbs that make chronological references are outside the envelope.

INCLUDED 2 . . . **estaba trabajando** tranquilamente . . . Personal references are a point of clear and intense variation, so verb 2 is inside the envelope, as are verbs in 3, 10, 11, 14, 15, 16, 18, 20, 21, 22, 24.

EXCLUDED 4 . . . en una compañía que *se llama* AXS . . . All verbs that make reference to an inanimate entity, such as the verb *se llama*, 'its name is', which refers to *una compañía* 'a company', are outside the envelope. For the same reason verb 5 is outside the envelope.

INCLUDED 6 . . . **Están** aquí en Madison y la Cincuenta . . . Even though third-person plural verbs making references to corporate entities are a weak point of variation (they mostly occur with nulls), enough of these overt corporate *ellos* are found in the corpus to warrant including this environment inside the envelope (cf. Lapidus & Otheguy 2005a). For the same reason, verbs 7 and 8 are inside the envelope.

EXCLUDED 9 . . . *fueron* los auditores . . . All verbs that appear in construction with an overt subject nominal, such as 9, whose subject is *los auditores*, are outside the envelope. For the same reason verbs 13 and 17 are outside the envelope.

INCLUDED 10 . . . **fueron** a México . . . Verbs that appear in second or subsequent places in lists or sequences of verbs, after a pause or a conjunction, and that have the same subject as the first verb on the list occasionally do appear in our corpus with an overt subject. Therefore, all verbs found in this type of environment are admitted into the envelope, whether they appear with an overt or a null. In this case, even though it is highly unlikely that the speaker could have used an overt with the first verb (number 9, *fueron*), because *fueron* already has a nominal subject, namely *los auditores*, he could have used an overt with the second verb, number 10, possibly saying '*fueron* los auditores de aquí en Nueva York, **ellos**

fueron a México'. For this reason, 9 is outside the envelope but 10 is inside. For the same reason, 14 is inside the envelope.

EXCLUDED 12 . . . el gerente que *estaba* a cargo de esa empresa . . . As mentioned above, all verbs in subject relatives are excluded, due to the exceedingly low incidence of overts in this environment, where we very rarely find something like *el gerente que él estaba a cargo* . . . This is the second reason for keeping verb 4 outside the envelope.

EXCLUDED 19 . . . el que más o menos *hablaba* inglés . . . All verbs that have a headless relative as subject are outside the envelope; in this case, the subject of the verb *hablaba* is the headless relative *el que*. For the same reason, verb 23 is outside the envelope.

2.5. WHAT LIES AHEAD. We begin with a preliminary look at the general characteristics of the sample, and then consider the evidence for the hypothesis that interlanguage contact is an active force pushing Spanish pronominal usage in NYC in the direction of English. Evidence includes the rates of pronouns and several of their sociodemographic correlates relating to the speakers' knowledge and use of English, as well as the very important differences in pronoun rates that exist in different immigrant generations. We then proceed to a consideration of the hypothesis that interdialectal contact is also helping to shape the pattern of pronoun use in the City. For this purpose, we also use pronoun rates and their correlates, but employ two additional analytic techniques, namely variable and constraint hierarchies. Before turning to the study of interdialectal contact, we provide the necessary analysis of the dialectal subdivision of the Spanish that enters NYC in the speech of newcomers to the City.

3. GENERAL CHARACTERISTICS OF THE SAMPLE. The most basic question that arises about the corpus as a whole is the overall occurrence rate of overt pronouns. In our corpus, as in all speech samples of subject personal pronouns that have been studied in Spanish to date, a minority of finite clauses appear with overt pronouns, as shown in Table 1.

	N VERBS	%
Clauses with overt subject pronouns	21,208	33
Clauses with null subject pronouns	42,303	67
TOTAL	63,511	100

N speakers = 142

TABLE 1. Occurrence rate of overt pronouns in the entire corpus.

Table 1 shows that, for the corpus in its entirety, the overt subject pronoun rate is thirty-three percent. In other words, two-thirds of the over sixty thousand finite clauses found in the corpus inside the envelope of variation occur with a null and one-third with an overt.

We calculated pronoun rates in various subpopulations of the sample (men and women, speakers of different ages, those with more or less education, etc.) to investigate whether our corpus conforms to the generalization of Silva-Corvalán (2001:133) that independent variables involving personal characteristics tend to have no impact on the variability of morphosyntactic features like subject pronouns. Five ANOVAs, one each for gender, age, education, socioeconomic status, and class, revealed that the differences in pronoun rate are very small and not statistically significant between men and women, between speakers of different age groups, different social classes, different levels of education, and so on. None of these differences between speakers is related to the presence or absence of subject pronouns in Spanish.

4. LANGUAGE CONTACT INFLUENCE FROM ENGLISH. The predictions that follow from a language contact hypothesis are that the overt pronoun rate should show a positive correlation with the number of years the interviewees have spent in the City (more years, more overt pronouns) and with their self-reported level of English skills (more English, more overts), as well as a negative correlation with age of arrival (older arrivals, fewer overts) and self-reported use of Spanish with a variety of interlocutors and in a variety of domains (more Spanish use, fewer overts).[9] The prediction that the more years Latinos spend in New York, the greater their own use of and exposure to English from monolingual speakers of English and from Spanish-English bilinguals, is corroborated by large-scale analyses of Spanish speakers in the US that prove that 'longer residence in the United States is associated with greater language shift' (Veltman 2000:66). Accordingly, greater exposure to English stemming from more years in NYC should result, on average, in higher overt pronoun rates in Spanish. The rationale for predictions involving the negative correlations is that the older Latinos are when they arrive in the City, and the more they speak Spanish with great frequency, fluency, and skill, the more resistant their Spanish should be to English influence (Veltman 2000). As a result, older arrivals, highly competent speakers of Spanish, and frequent speakers of Spanish should, on average, tend to have lower overt pronoun rates than their counterparts.

The results of testing our predictions are in Table 2. The independent sociodemographic variables relevant to the issue of language contact appear on the left side of the table. Because these variables are continuous or scalar, the measure used is the Pearson correlation between the dependent variable (overt or null pronoun) and each of the independent variables. The correlations are listed under the column marked 'r' in Table 2. The significance value is indicated with one asterisk ($p < 0.05$) or two ($p < 0.01$). In some items in Table 2 the N is less than 142 because some participants left some questionnaire items blank. Table 2 shows moderate but statistically significant correlations in the predicted directions in six out of the seven variables. The only failed prediction involves an unexpected positive significant correlation ($r = 0.21$) between pronoun use and Spanish with workmates.[10] That case aside, there are, as predicted, positive correlations between rates of overt pronouns and years spent in NYC as well as English skills. Also as predicted, there are negative correlations between use of overt pronouns and older age of arrival, greater skill in Spanish, greater use of Spanish, and greater use of Spanish with siblings and father. These correlations, based on a large data set drawn from the speech of a stratified sample of the six largest Latino groups in the City, provide us with an initial, community-wide portrait of Spanish in New York that makes a strong prima facie case for the impact of interlanguage contact.

The case that English is influencing Spanish pronominal usage in NYC can be made more eloquently by comparing the occurrence rates of overt pronouns found in the Spanish of members of two immigrant generations: one, newcomers, who are part of the first generation, and two, the New York-born and/or raised (henceforth NYBR),

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[9] We measure English and Spanish skills through self reports, which are the most popular indirect measure of language proficiency used in sociolinguistics and applied linguistics (Macías 2000). The consensus of scholarly opinion holds that, at least for second-language skills, self reports are reliable assessments when compared to direct test measures (Roever & Powers 2005).

[10] We obtained statistically nonsignificant correlations for independent variables involving extent of use of Spanish with certain kinds of interlocutors such as mother and spouse as well as for variables related to the use of Spanish in different domains. Those are not listed, though they tended to go in the predicted direction.

	N SPEAKERS	*r*
Years in New York	142	0.29**
English skills	141	0.24**
Age of arrival	142	−0.23*
Spanish skills	141	−0.20**
Spanish with siblings	125	−0.25**
Spanish with father	111	−0.20*
Spanish with workmates	126	0.21*

* $p < 0.05$
** $p < 0.01$

TABLE 2. Pronoun rate and sociodemographic variables (Pearson correlations).

who constitute the second generation. Thus we look at rates at the two ends of the exposure-to-and-use-of-English scale, comparing speakers who have recently arrived in NYC with speakers who have lived in the City for their entire lives, or all but three years. Our prediction is that overt pronoun rates will be much higher among NYBR than among newcomers, showing the influence of English. Before turning to the basis for our prediction, we define and justify the generational categories newcomer and NYBR.

4.1. NEWCOMERS AND NYBR. Our newcomer is someone who arrived in New York at age seventeen or older and has lived in the City for no more than five years (newcomers: Age of arrival > 16 and YrsNYC < 6). These defining criteria allow us to construct a subsample of first-generation immigrants who have spent relatively little time in NYC, have had relatively limited exposure to English, whose Spanish was fully formed by the time they arrived in the City, and who have not attended high school in the US, thus avoiding the strong assimilation pressures typical of adolescence. Our average newcomer is thirty years old and has spent fewer than three years in the City. Our sample contains thirty-nine newcomers. The category NYBR encompasses speakers who are members of the second generation, that is, those who were born in NYC or were brought to the City at or before the age of three (NYBR: Age of arrival < 3.1 or born in NYC). Our average NYBR speaker is twenty-eight years old; the difference between the average ages of the newcomers and the NYBR is not statistically significant. The NYBR constitute a subsample of speakers with a high degree of exposure to English and whose Spanish was far from being fully formed by the time exposure to English began. We include in our NYBR speakers those who came to the City in the first three years of life, since such small children are linguistically immature in general, and specifically immature with regard to the use of subject personal pronouns (Berman & Slobin 1994, Sebastián & Slobin 1994). As documented in the literature on first-language acquisition, subject pronouns make their appearance, in the first- and second-person singulars, only tentatively at age two and, in the third-person singular, starting at age three. Our sample contains twenty-eight NYBR, the majority of whom arrived before they were one year old.[11] We are studying here, then, not the pronominal usage of the entire 142-speaker corpus as in Table 2 above, but of the sixty-seven speakers located at the two ends of an exposure-to-and-use-of-English continuum.

4.2. GROUNDS FOR EXPECTING ENGLISH INFLUENCE ON NYBR SPANISH. Our hypothesis that the pronoun rate in NYC reflects the influence of English is based on considerations

[11] Of the twenty-eight NYBR informants, three were between the ages of one and three when they arrived in the City, sixteen arrived at age one or younger, and nine were born in the City.

having to do with similarities and differences between the two languages, discussed above, and, in addition, on (i) what we know about the difference between proficiency in, and amount of use of, the two languages by NYC Latinos and (ii) two assumptions about the speakers we interviewed that we proceed to test.

Ample documentation for the shift to English among the NYBR when compared to the first immigrant generation is provided in an ethnographic study by Zentella (1997); many NYBR were fluent speakers of Spanish but none was Spanish dominant, and none used Spanish more than English. Similar points are made on the basis of US census data by Bills, Hudson, and Hernández Chávez (2000) and Veltman (2000). With respect to our interviewees, we assume, first, that the newcomers in our sample, like all Spanish-speaking newcomers to NYC and the US in general (Veltman 2000), tend on average to use Spanish in most of their interactions, their English being, for the most part, a developing language. In contrast, the NYBR, who have lived in the City their entire lives, tend to use Spanish in a smaller proportion of their public and private conversations. Second, we assume that the Spanish of newcomers, acquired for the most part in a monolingual Latin American environment, is more highly developed than that of the NYBR, whose Spanish is acquired from the start in a bilingual environment. Similarly, knowledge of English is much less developed among the newcomers, who for the most part have been exposed to English for less than three years, than among the NYBR, who have been exposed to English all their lives. Accordingly, we expect that the NYBR are more susceptible than the newcomers to English influence and that pronoun rates should be higher among the NYBR than among the newcomers.

The level of use of, and skills in, Spanish and English of our interviewees was established via self report, using a four-point Likert scale. The results with regard to use are in Table 3. (S.D. is the abbreviation for standard deviation.)

	N SPEAKERS	EXTENT OF SPANISH USE	S.D.
Newcomers	39	3.26	0.82
NYBR	28	1.93	0.86

$F = 41.420$
$p < 0.01$
Newcomers: Age of arrival > 16 and YrsNYC < 6
NYBR: Age of arrival < 3.1 or born in NYC

TABLE 3. Extent of Spanish use by generation (ANOVA on a four-point Likert scale).

Table 3 confirms our assumptions, showing that newcomers averaged between mid and high use of Spanish (3.26), whereas the average use of Spanish for the NYBR was right below the low point (1.93), a difference that is statistically significant. Tables 4a and 4b, with the results for the questions related to levels of skills in English and Spanish, provide further confirmation of our assumptions regarding language differences between the two generational groups.[12] For Spanish, the average newcomer rated his/her skills between fair and good, whereas the average NYBR rated them between poor and fair. For English the reverse is true: the average newcomer rated his/her skills between poor and fair whereas the average NYBR rated them between fair and good. Note that, as expected, the NYBR speakers' knowledge of Spanish (1.61) is higher than the newcomers' knowledge of English (1.15).

The results of the questionnaires confirm our assumptions, based on common knowledge and previous research, about differences between newcomers and the NYBR

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[12] Three of the NYBR did not answer the question about English skills.

	N SPEAKERS	LEVEL OF SPANISH SKILLS	S.D.
Newcomers	39	2.53	0.60
NYBR	28	1.61	0.76

$F = 28.91$
$p < 0.01$
Newcomers: Age of arrival > 16 and YrsNYC < 6
NYBR: Age of arrival < 3.1 or born in NYC

TABLE 4a. Level of Spanish skills by generation (ANOVA on a four-point Likert scale).

	N SPEAKERS	LEVEL OF ENGLISH SKILLS	S.D.
Newcomers	39	1.15	0.99
NYBR	25	2.68	0.61

$F = 52.20$
$p < 0.01$
Newcomers: Age of arrival > 16 and YrsNYC < 6
NYBR: Age of arrival < 3.1 or born in NYC

TABLE 4b. Level of English skills by generation (ANOVA on a four-point Likert scale).

regarding the extent of Spanish use as well as skill levels in English and Spanish. Based on these corroborating results, we predict that the Spanish of the NYBR should be more susceptible, in general, to English influence, and in particular, that the pronoun rate should be higher, on average, among the NYBR than among the newcomers.

4.3. A COMPARISON OF PRONOUN RATES BETWEEN NEWCOMERS AND THE NYBR. Table 5 shows that the occurrence rates of overt pronouns for newcomers and the NYBR differ in a way that is fully congruent with a language contact hypothesis.[13]

	N SPEAKERS	% OVERT PRONOUNS	S.D.	N VERBS
Newcomers	39	30	11	17,030
NYBR	28	38	11	12,077

$F = 8.88$
$p < 0.01$
Newcomers: Age of arrival > 16 and YrsNYC < 6
NYBR: Age of arrival < 3.1 or born in NYC

TABLE 5. Pronoun rates by generation (ANOVA).

As expected, the NYBR speakers have a significantly higher rate of overt pronouns than the newcomers. Figure 1 displays the difference in the form of bar graphs. In the course of one apparent-time generation, the pronoun rate in Spanish in New York has grown by a statistically significant eight percentage points: an average of thirty percent of eligible verbs appear with an overt pronoun in the Spanish of newcomers and an average of thirty-eight percent of such verbs appear with an overt pronoun in the Spanish of members of the NYBR generation.

Our interpretation of Table 5 and Figure 1 involves inferences about diachronic change based on differences between two apparent-time immigrant generations. It is reasonable to assume that the newcomers of today give a good approximation of what

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[13] The data in Table 5 come from an informant-level analysis based on the average pronoun rate of each group of informants. The relevant *N*s are therefore those of speakers in each group. The *N*s for verbs are given as supplemental information.
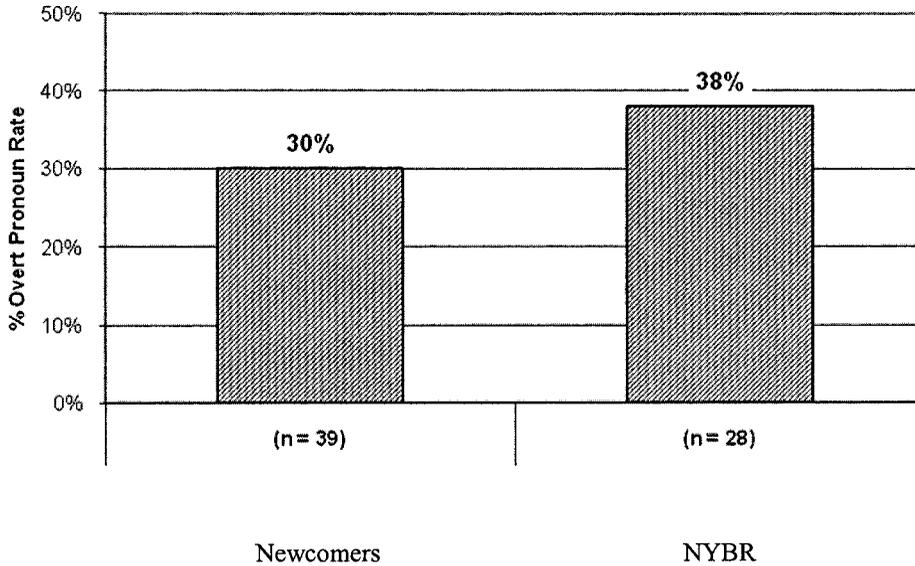
FIGURE 1. Pronoun rates by generation.

newcomers in a previous generation were like linguistically; thus what we see in today's newcomers can be used as the basis for developing a picture of the usage of the generation before today's NYBR, who are all second-generation New Yorkers and the offspring of a parent generation of newcomers. With that assumption, comparisons of newcomers with the NYBR can be translated into comparisons between an earlier generation and today's NYBR generation that succeeded it. From this point on, we pursue such comparisons and exploit them for developing hypotheses about change in Spanish in NYC; thus talking about comparison between newcomers and the NYBR and about 'change' between newcomer usage and NYBR usage is to be understood as shorthand for talking about real change between the inferred usage of the parent generation and the usage of today's NYBR.

4.4. DISCUSSION OF FINDINGS ON ENGLISH CONTACT INFLUENCE. Our conclusion that contact with English is causing an increase in the use of overt pronouns in Spanish in NYC joins a broader discussion regarding pronoun usage in the Spanish of US Latinos. English contact influence on pronominal usage has been proposed in studies by Bayley and Pease-Alvarez (1996), Klein-Andreu (1985), Lapidus and Otheguy (2005a,b), Lipski (1994, 1996), Otheguy and Zentella (2007), and Toribio (2004). But Bayley and Pease-Alvarez (1997), Flores and Toro (2000), Flores-Ferrán (2004), Silva-Corvalán (1994), and Travis (2007) have found that the evidence for English contact is not conclusive. Most of these differences in results are probably due to differences in sample size and method of coding.

Silva-Corvalán 1994 and Bayley & Pease-Alvarez 1997 analyzed the use of Spanish subject personal pronouns by Mexican-descent speakers in California (adults in the former study, children in the latter), separating groups, in a fashion similar to that of the present analysis, depending on the extent of their ties to the US and their consequent exposure to English. The authors found no increase in pronoun rates when they compared speakers who had greater exposure to English with speakers who had less expo-

sure. The number of participants in Silva-Corvalán's 1994 study was fifty; in Bayley & Pease-Alvarez 1997 the number was forty-six. In addition, nominal and pronominal subjects are not separated in all of the calculations in Silva-Corvalán 1994, and in Bayley & Pease-Alvarez 1997:364ff. the authors acknowledge that the Spanish speech samples from the children with more English exposure were less elaborate and less developed than those from the children who were less exposed to English, allowing fewer opportunities to use pronouns. A similar sample size issue may account for the difference between our results and those of Travis 2007, which were based on thirty-three interviews, and those of Flores & Toro 2000, based on nine interviews. For statistical power in these correlational studies, the primary concern is a sufficient number of speakers, rather than verbs.

In a study of NYC Puerto Ricans that included some of the same speakers as the present analysis, Flores-Ferrán (2004) grouped her fluent adults into apparent-time exposure groups that are roughly parallel to the groupings in Silva-Corvalán 1994, Bayley & Pease-Alvarez 1997, and the present study, and obtained results with regard to increases in pronoun rates that are substantially the same as ours. NYC Puerto Ricans who were native to the City produced higher pronoun rates than NYC Puerto Ricans who were born in Puerto Rico but were long-term established immigrants in NYC. These established immigrants, in turn, had higher rates than Puerto Ricans who were recent arrivals from the island. These findings are analogous to the increase in our NYBR compared to our newcomers, and follow the pattern that an English contact hypothesis would predict. But after evaluating her findings regarding conditioning factors as well as comparing the evidence from New York and other areas, Flores-Ferrán (2004) remains skeptical about the role of English in shaping pronoun usage in the City's Puerto Ricans.

In the present study, our finding regarding pronoun rates is exactly what is predicted by an English contact hypothesis. When the entire sample is analyzed, the prediction is that if English contact is an active force in the Spanish of the City, there should be positive correlations between pronoun rate and years spent in NYC and English skills, and negative correlations between pronoun rate and age of arrival, Spanish skills, and high use of Spanish with several interlocutors. Given the daily and life-long exposure of NYBR Latinos in New York to English; their self report on use of, and skill in, English and Spanish; the superior vs. inferior positions occupied by the two languages in the social, economic, and power structures of the City; and, finally, the pattern of linguistic similarities and differences that holds between subject pronouns in the two languages, we are not surprised that Spanish-English bilinguals of the NYBR generation are adapting their usage of Spanish pronouns to English usage norms.

5. DIALECTAL DIFFERENCES IN THE SPANISH THAT ENTERS NEW YORK. In order to investigate the question of possible dialect contact in Spanish in NYC, we first establish the dialectal subdivisions that enter the City in the speech of newcomers. Starting from that baseline, we investigate subsequent developments associated with the passage of apparent time in New York.

5.1. REGIONAL SUBDIVISIONS AMONG NEWCOMERS TO NEW YORK. In the study of Latin American dialectology, dialect areas or zones have been traditionally regarded as relevant units (Henríquez Ureña 1921, Rona 1964, Zamora Munné & Guitart 1982:182ff.). One of the areas usually posited is the Caribbean, which is distinguished from the Mainland of Latin America by phonological and morphosyntactic features, including a more frequent use of overt subject personal pronouns (López-Morales 1992). The

Spanish of our thirty-nine newcomers to NYC confirms the existence of this regional division in the rate of subject personal pronouns. In Table 6, the Caribbean region is composed of our newcomers from the Dominican Republic, Puerto Rico, and Cuba, and the Mainland region includes our newcomers from Ecuador, Colombia, and Mexico.[14]

	N SPEAKERS	% OVERT PRONOUNS	S.D.	N VERBS
Caribbean newcomers	19	36	8	8,800
Mainland newcomers	20	24	9	8,230

$F = 19.12$
$p < 0.01$
Newcomers: Age of arrival > 16 and YrsNYC < 6

TABLE 6. Pronoun rate by region of origin: Newcomers (ANOVA).

The clearly significant results of Table 6 show that newcomers from the Caribbean and the Mainland constitute two well-differentiated groups with respect to overt pronoun rates. Furthermore, the direction of differentiation is consistent with previous findings, as the use of overt pronouns is higher among newcomers from the Caribbean than among newcomers from the Mainland (Avila-Jiménez 1995, López-Morales 1992, Morales 1997). The regional differentiation of Caribbean and Mainland Spanish that newcomers bring to the City sets the stage for our study of possible dialect contact in NYC.

5.2. NATIONAL SUBDIVISIONS AMONG NEWCOMERS TO NYC. Since countries may not follow their region's pattern in regard to every feature, the specific patterns of individual countries have also been an important focus in the study of Latin American dialectology (cf. Cotton & Sharp 1988, Lipski 1994, Lope Blanch 1968). Accordingly, we could think of our newcomers as representing not two different regions, but six different country dialects. Table 7 shows the average pronoun rate for newcomers from each of the six national groups in the study.

	N SPEAKERS	% OVERT PRONOUNS	S.D.	N VERBS
Dominican	6	41	11	2,217
Puerto Rico	6	35	4	3,805
Cuba	7	33	7	2,778
Ecuador	8	27	10	3,735
Colombia	6	24	11	1,926
Mexico	6	19	7	2,569

$F = 5.09$
$p < 0.01$
Newcomers: Age of arrival > 16 and YrsNYC < 6

TABLE 7. Newcomers' pronoun rate by national origin in descending order (ANOVA).

A continuum of declining pronoun rates in Table 7 starts with the leading users of overt pronouns, the Dominicans, and ends with the Mexicans, who used the fewest

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[14] We are fully aware that two of our Mainland countries, Colombia and Mexico, have Caribbean coastal areas where Spanish is spoken with a phonology similar to that of Cubans, Dominicans, and Puerto Ricans. Our sample of newcomers contains one Caribbean speaker from each of these countries (and also four from the Ecuadorian Pacific coast, where phonological features are also believed to resemble the Caribbean). But irrespective of the phonological facts, we have found that with regard to rates of overt pronouns, there are no differences between Mainlanders from coastal areas and Mainlanders from the interior. This justifies including among our Colombians, Ecuadorians, and Mexicans the few speakers from those countries that hail from their Caribbean or Pacific coastal zones.

pronouns. Large rate gaps exist at both ends of the continuum, that is, between the first and the second countries (six percentage points between Dominican and Puerto Rican newcomers) as well as between the last and the next to last (five percentage points between Mexican and Colombian newcomers). There is also a similar gap between the top three Caribbean nations and the bottom three Mainland countries (Cuban and Ecuadorian newcomers are separated by six percentage points).

Although Table 7 indicates that there are significant differences in rates overall, the question of whether it is best to think of the newcomers as divided into six countries or two regions cannot be settled until we have information regarding the statistical significance of the difference between any two adjacent countries. To that end, the results of Table 7 were submitted to a post hoc Tukey test, which revealed that a six-country approach to subdividing the newcomers is untenable. Cuban and Ecuadorian newcomers do not differ significantly, with regard to the pronoun rate, from newcomers from any other country. Puerto Ricans are significantly different only from Mexicans; and Colombians differ only from Dominicans. In turn, Dominicans are significantly different only from Colombians and Mexicans, and Mexicans are significantly different only from Dominicans and Puerto Ricans. The six-country division of newcomer Spanish has to be discarded. Given these considerations, we conclude that our initial approach to an understanding of the Spanish that enters NYC, an approach based on the statistically demonstrated contrast in pronoun rates between Caribbeans and Mainlanders, is the more valid one.

5.3. A DIALECT CONTACT HYPOTHESIS. The hypothesis that pronominal usage in New York is being shaped not only by language contact from English but also by dialect contact between Caribbeans and Mainlanders can be tested by means of a prediction involving occurrence rates. We should expect that the increases in pronouns used by distinct generations are higher among Mainlanders than among Caribbeans, resulting in a narrowing of the pronoun rate between the regions in the NYBR generation. The rationale for this prediction is that the Mainlander community in New York is exposed to two out-group forms of speech characterized by high rates of overt pronouns, namely English and Caribbean Spanish, whereas the Caribbean community is exposed to only one out-group, high-pronoun-rate form of speech, English, and to one countervailing low-pronoun-rate form of speech, Mainlander Spanish.

5.4. A COMPARISON OF REGIONAL DIFFERENCES ACROSS THE GENERATIONS. Table 8 compares regional differences at the two generational stages and offers evidence related to our prediction.

	NEWCOMERS		NYBR	
	N	*%*	*N*	*%*
Caribbean	19	36	14	42
Mainland	20	24	14	33
TOTALS	39	30	28	38
Region		$F = 21.01$	$p < 0.01$	
Generation		$F = 11.30$	$p < 0.01$	
Region * Generation		$F = 0.47$	$p > 0.05$ n.s.	

TABLE 8. Pronoun rates by region and generation (ANOVA).

The results in Table 8 are consistent with our predictions, although they are not statistically significant. As expected, the generational increase in overt pronouns is greater among Mainlanders (nine percentage points) than among Caribbeans (six percentage points). Also as expected, the gap between the two regional groups is narrower among

the NYBR (nine percentage points) than among newcomers (twelve percentage points). But a statistical analysis of the interaction between region and generation was not significant. As a result, we cannot assert with complete confidence that the narrowing of the regional difference is statistically related to the difference between the generations.

Table 8, however, does demonstrate that the significantly higher rate of overt pronouns among the NYBR when compared to the newcomers is not exclusive to a single region but is true for both Caribbeans and Mainlanders. These results support the idea that Spanish-speaking New York constitutes a single speech community at some level, in that all of its members show evidence of the impact of English on their pronoun rates. The Caribbeans, whose newcomers had a thirty-six percent pronoun rate, end up with a forty-two percent rate among their NYBR counterparts, and the Mainlanders, whose newcomers had a twenty-four percent pronoun rate, end up with a thirty-three percent rate among their NYBR. Figure 2 presents the contrasts in the form of a bar graph.
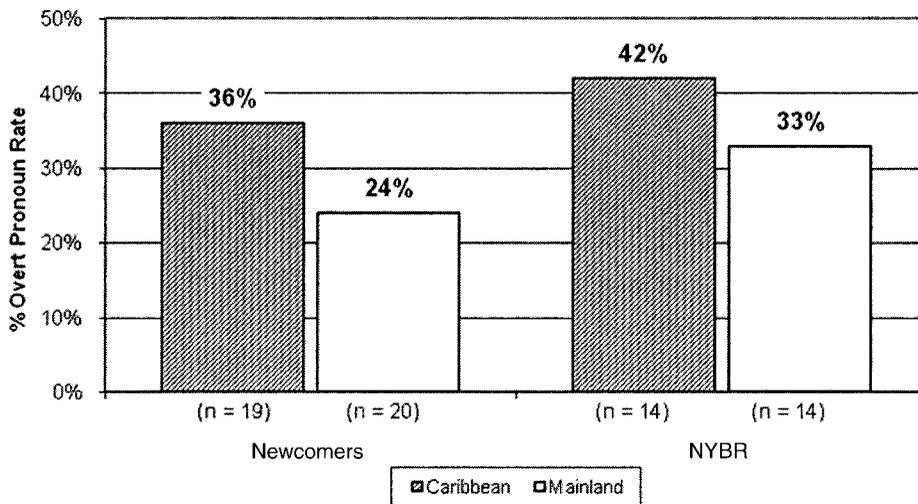

FIGURE 2. Pronoun rates by region and generation.

Still, the study of occurrence rates does not yield a convincing demonstration of the connection between the passage of apparent time and the leveling of regional differences in pronominal usage. Much more persuasive evidence results from the study of variable and constraint hierarchies that follows.

6. HIERARCHIES IN COMPARATIVE SOCIOLINGUISTICS. An analysis of variable and constraint hierarchies affords a more compelling way to investigate whether the dissimilarities in pronominal usage that enter NYC are being leveled due to dialect contact between Caribbeans and Mainlanders. The questions that we ask now are (i) whether the difference between Caribbean and Mainlander newcomers, which has been clearly established through occurrence rates, is supported by the study of hierarchies; and (ii) whether the convergence between the two communities at the NYBR stage, which has been suggested, but less conclusively, through occurrence rates, can be more effectively demonstrated by means of hierarchies.

In using hierarchies to ask questions about the existence of speech communities and subcommunities, such as Caribbeans and Mainlanders, we make use of the concept of

speech community (originally proposed in Gumperz 1968 and reviewed in Patrick 2002) in the specific form of what Romaine (1982:19) describes as 'prototypical variable rule communities'. In this line of analysis, first proposed by William Labov and his followers, the pattern of varying constraints is real and pervasive and serves to formally define communities and subcommunities (Guy 1980). In using hierarchies to compare communities with each other, and to compare communities of the same origin at different generational stages, we are engaging in what Tagliamonte (2002:729) has called 'comparative sociolinguistics'. In this type of work, exemplified in such variationist studies as Poplack & Tagliamonte 1999 and Poplack & Sankoff 1987, the factors that condition variation are regarded as more revealing for the purpose of identifying groups and the connections between them than the results of the study of occurrence rates (cf. Poplack 2000:14).

6.1. Variable hierarchies and constraint hierarchies. We start by entering the ten independent linguistic variables listed in §2.3 (Genre, Person, Tense, Reflexive, Specific, Connect, Lexical, Clause, Set phrase, and Picture) in a logistic regression where the dependent variable is the use of an overt or null pronoun. The results of the regression tell us the ranking of these variables with respect to the amount of variance they account for in the use of pronouns. We then pick the strongest variable, which turns out to be Person, and proceed to a study of constraint hierarchies within that variable, that is, we proceed to a study of the relative impact that each of the different persons of the verb has on the probability of appearance of an overt pronoun.

In order to assess the relative strength of the independent variables in a logistic regression, we look at the Wald statistic associated with each of the variables (Hosmer & Lemeshow 2000).[15] Consequently, we have used the Wald associated with each independent variable to construct variable hierarchies. In order to assess the proportion of overt pronoun usage associated with particular constraints within a variable, we look at Exponential B, referred to henceforth as Exp(B), which represents the change in likelihood of occurrence of the overt pronoun associated with each constraint. For example, the variable Person has several constraints, including first-person singular, second-person singular, and so forth. The Exp(B) expresses the change in likelihood of overt pronoun usage associated with first-person singular when compared to the average overt pronoun usage, with second-person singular when compared to the average overt pronoun usage, and so forth.[16] A constraint hierarchy is a listing of the change in likelihood of appearance of the overt pronoun associated with each constraint of an independent variable, expressed as an Exp(B) estimate, in order of descending strength.

6.2. Variable hierarchies in newcomer spanish. The next step in the analysis is to compare the variable hierarchies of the two regional groups of newcomers, and to do it again for the two regional groups of the NYBR. We first perform the comparison for the newcomers by exploring whether the regional division between Caribbeans and Mainlanders in this immigrant generation, previously apparent in contrasting occurrence

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[15] For the use of the Range (the distance between the highest and the lowest constraint within a variable) to measure the relative strength of independent variables using VARBRUL, see for example Tagliamonte 2002:754.

[16] We utilized deviation coding for this series of logistic regressions. Deviation contrasts compare each constraint to the mean pronoun usage within all constraints within all variables (excepting the reference categories). SPSS gives the option of using the first or last factor as the reference category. By running each model twice (using the first or last reference category), we are able to create constraint hierarchies for all independent variables.

rates, is reflected in differences in their variable hierarchies. The variable hierarchies in Table 9a come from two logistic regression runs, one for each region, in which all ten independent variables were included. The variables, both significant and nonsignificant, are listed in descending order according to the value of the Wald coefficient.

	CARIBBEAN NEWCOMERS			MAINLAND NEWCOMERS	
RANK	VARIABLE	WALD	RANK	VARIABLE	WALD
1st	Person	495.218**	1st	Person	408.05**
2nd	Connect	293.86**	2nd	Connect	194.11**
3rd	Tense	239.48**	3rd	Set phrase	71.17**
4th	Clause	87.33**	4th	Tense	55.10**
5th	Lexical	22.20**	5th	Clause	45.49**
6th	Genre	12.30*	6th	Lexical	45.14**
7th	Picture	4.86*	7th	Reflexive	31.89**
8th	Set phrase	2.23	8th	Genre	13.45**
9th	Reflexive	1.98	9th	Specific	1.50
10th	Specific	0.96	10th	Picture	1.35

N verbs $=$ 8,583 N verbs $=$ 8,155

N speakers $=$ 19 N speakers $=$ 20

Newcomers: Age of arrival $>$ 16 and YrsNYC $<$ 6

* $p < 0.05$

** $p < 0.01$

TABLE 9a. Hierarchies of variables related to overt pronoun expression (logistic regression): Newcomers.

Because Caribbean and Mainland newcomers differ markedly in pronoun occurrence rates, they might be expected to differ markedly as well with regard to variable hierarchies, but the results do not confirm such an expectation. The variable hierarchies listed in Table 9a for the two regions are not identical, but neither are they very different. The independent variable at the top of both hierarchies is Person, indicating that the appearance of an overt or a null pronoun is most influenced by whether the verb is first, second, or third person. The second-ranked variable is also the same in both groups (Connect), indicating that speakers from both regions are influenced by whether the referent of the subject of a verb is the same as, or different from, the referent of the subject of the previous verb. In fact, both regions place Person, Connect, Tense, and Clause in the same descending order among the top five variables, albeit in different positions. The hierarchies for the two regions are not identical, especially with respect to the lower-ranked variables. Reflexive and Set phrase are significant in the Mainland but not in the Caribbean, while Picture is significant in the Caribbean but not in the Mainland.

The similarities between the hierarchies reflect the fact that the two regional communities belong to the same cultural and linguistic tradition; they heed the same criteria, in similar order, when they use subject pronouns. By contrast, the slight differences between the hierarchies are also not unexpected, especially since the pronoun occurrence rates have already established that the regions differ from one another.

6.3. VARIABLE HIERARCHIES IN NYBR SPANISH. Table 9b presents the same variable hierarchies, but derived from two new logistic regression runs, based on the data from the NYBR instead of the newcomers. In view of what we know about the convergence of pronoun rates in the two regional dialects at the NYBR stage, we should expect the two variable hierarchies in Table 9b to resemble each other more than the two hierarchies in Table 9a did. And indeed, the top three variables, Person, Connect, and Tense, are now exactly the same for Caribbean and Mainland NYBR speakers, and they are ordered in exactly the same way, in contrast with Table 9a, where Caribbean and

	CARIBBEAN NYBR			MAINLAND NYBR	
RANK	VARIABLE	WALD	RANK	VARIABLE	WALD
1st	Person	325.73**	1st	Person	413.80**
2nd	Connect	111.70**	2nd	Connect	142.49**
3rd	Tense	73.89**	3rd	Tense	101.40**
4th	Picture	30.64**	4th	Clause	23.88**
5th	Clause	27.29**	5th	Genre	11.28*
6th	Lexical	13.06*	6th	Reflexive	11.07**
7th	Set phrase	11.67**	7th	Set phrase	7.40*
8th	Reflexive	11.40**	8th	Specific	4.70*
9th	Genre	7.17*	9th	Picture	3.62
10th	Specific	1.66	10th	Lexical	2.17

N verbs $= 4{,}737$ N verbs $= 6{,}712$
N speakers $= 14$ N speakers $= 14$
NYBR: Age of arrival < 3.1 or born in NYC
* $p < 0.05$
** $p < 0.01$

TABLE 9b. Hierarchies of variables related to overt pronoun expression (logistic regression): NYBR.

Mainland newcomers shared the same top two variables, but diverged in the third. This minor realignment of independent variables when NYBR speakers are compared to newcomers is consistent with the dialect contact hypothesis, but no major changes are evident when we compare the hierarchies in Tables 9a and 9b; Person, Connect, Tense, and Clause are in the top five on both lists. Thus, while the variable hierarchies do not contradict the dialect contact hypothesis, neither can they be said to provide strong support.

For our immediate purposes, the most important result of Tables 9a and 9b is that Person is the highest-ranked variable in both regions and at both generational stages. Accordingly, we turn to this variable to deepen our understanding of the Spanish that enters New York and its subsequent development, beginning with the internal distribution of constraints within the variable Person in newcomers from each of the regions.

6.4. CONSTRAINT HIERARCHIES IN NEWCOMER SPANISH. The constraint hierarchies in Tables 10a and 10b are extracted from the same two logistic regression runs from which we generated the variable hierarchies in Tables 9a and 9b. This means that while Table 10a shows results for only one variable, namely Person, the results control for all other variables in the equation, that is, the results control for Tense, Connect, Clause, and so forth.

	CARIBBEAN NEWCOMERS			MAINLAND NEWCOMERS	
	N VERBS	Exp(B)		N VERBS	Exp(B)
2SG Spec	716	3.22**	3SG	1,668	3.21**
2SG Nonspec	414	3.13**	1SG	3,907	1.98*
3SG	1,395	1.09	2SG Spec	279	1.19
1SG	4,458	1.04	2SG Nonspec	485	0.61**
3PL	1,045	0.30**	3PL	1,117	0.58**
1PL	555	0.29**	1PL	699	0.37**

N verbs $= 8{,}583$ N verbs $= 8{,}155$
N speakers $= 19$ N speakers $= 20$
Exp(B) > 1.0 indicates that factor favors overts
Exp(B) < 1.0 indicates that factor favors nulls
Newcomers: Age of arrival > 16 and YrsNYC < 6
* $p < 0.05$
** $p < 0.01$

TABLE 10a. Hierarchies of constraints within the Person variable (logistic regression): Newcomers.

The constraints in Table 10a are listed in descending order according to the value under the Exp(B) column. Exp(B) represents the change in the log odds in the dependent variable (overt vs. null pronouns), due to the constraints in the independent variable (1SG Person, 2SG Person, etc.). A constraint with an Exp(B) value above 1.0 increases the odds of appearance of an overt pronoun; a constraint with a value of Exp(B) below 1.0 reduces the odds of using an overt pronoun. (In other words, the change point between increasing or reducing probability of occurrence is not 0.5, as in most versions of VARBRUL, but rather 1.0.) Thus an Exp(B) value above 1.0 indicates that the constraint favors the appearance of overts, while an Exp(B) value below 1.0 indicates that the constraint favors the null pronoun.

In contrast to the variable hierarchies for the newcomers from the two regions, which were only somewhat different, the constraint hierarchies for the newcomers from the two regions in Table 10a are strikingly different. To be sure, in the Spanish of newcomers from both the Caribbean and the Mainland, the two weakest constraints within the Person variable are the same (3PL Person and 1PL Person) and are ranked the same. But the four most powerful constraints, although they are the same, are ranked differently. Particularly striking is the difference in the 2SG Person Specific and the 2SG Person Nonspecific constraints, which distinguish between, on the one hand, specific reference to the interlocutor and, on the other, generic references (see below).

A detailed comparison of the constraints as they appear in the speech of newcomers from the two different regions follows.

FIRST- AND THIRD-PERSON PLURAL. The two regional hierarchies are identical with regard to the effect on pronoun usage of the plural persons of the verb. In both regions, verbs in the 1PL Person favor overt pronouns the least, that is, they favor null pronouns the most, falling only slightly below verbs in the 3PL Person, which also strongly disfavor overts. For example, clauses with nulls like *∅ vinieron a la escuela* 'they came to the school' are highly favored over those with overts, ***ellos vinieron** a la escuela* 'they came to the school'. This similarity with respect to the plural forms of the verb, which are highly skewed toward a preference for nulls in both regions, constitutes the only point where the Person constraint hierarchy fails to show regional differences.

FIRST-PERSON SINGULAR. Newcomers from the Caribbean and the Mainland differ markedly with regard to verbs in the 1SG Person. The 1SG Person constraint ranks second in the Mainland, nearly doubling the odds of appearance of an overt pronoun. That is, the Exp(B) value of 1.98 indicates that among Mainland newcomers the odds of appearance of an overt pronoun in connection with the 1SG Person are almost double the odds of its appearance, on average, in connection with all of the constraints of all of the variables in the regression. (That is, the context *canto* 'I sing' nearly doubles the odds of occurrence of an overt pronoun (*yo canto*) among Mainland newcomers when compared to all of the other contexts represented by all of the other variables in the regression.) In contrast, in the Caribbean, the 1SG Person is not a significant constraint, showing no greater favoring of overts over nulls, or of nulls over overts.

THIRD-PERSON SINGULAR. In the 3SG Person, for example, *canta* 'he/she sings', the difference between the regions is similar to and even more dramatic than the one observed for 1SG. The 3SG Person environment represents the most powerful constraint in the Spanish of newcomers from the Mainland, increasing the odds of appearance of an overt more than three times (Exp(B) = 3.21). Yet, for newcomers from the Caribbean this constraint is nonsignificant.

SECOND-PERSON SINGULAR NONSPECIFIC. Regarding the 2SG Person Nonspecific, we distinguish, following Cameron 1996 and Flores-Ferrán 2004, 2SG Person verbs that make definite, specific references to the interlocutor, for example, *tú/∅ tienes sed* 'you're thirsty', from 2SG Person verbs that make indefinite, nonspecific, or generic references, *tú/∅ llegas ahí y no sabes qué hacer* 'you get there (i.e. one gets there) and don't know what to do'. The 2SG Person Nonspecific is the second-ranked constraint in the Caribbean but the fourth-ranked constraint in the Mainland. It is particularly notable that in the Caribbean, references to 2SG Person Nonspecific increase the odds of appearance of an overt while in the Mainland they decrease these odds. Put another way, while 2SG Person Nonspecific favors overts in the Spanish of Caribbean newcomers, it favors nulls in that of Mainland newcomers.

SECOND-PERSON SINGULAR SPECIFIC. Verbs making 2SG Person Specific references represent the strongest constraint among newcomers from the Caribbean. For Mainlanders, by contrast, 2SG Person Specific references are not significant at all, indicating that Mainland and Caribbean newcomers differ radically in regard to the impact that 2SG Specific has on their use of overt and null subject pronouns.

The constraint hierarchies for the two newcomer regional groups, then, differ sharply in all three singular Persons with regard to significance and ranking. The only similarity between the regions is that both favor nulls in 1PL Person or 3PL Person. The clear differences in the regional constraint hierarchies among newcomers suggest that Caribbeans and Mainlanders constitute two distinct speech communities when they arrive in the City. As speakers of the same language, they share the fact of variability in the use of overt or null subject personal pronouns as well as the ranking of variables that favor one or the other variant. But as members of two different communities they differ markedly in the occurrence rates of overt pronouns and in the constraints that guide their variable use.

6.5. CONSTRAINT HIERARCHIES IN NYBR SPANISH. Constraint hierarchies within the variable Person for Caribbeans and Mainlanders at the NYBR stage appear in Table 10b. The table consists, in the two left panels, of a repetition of Table 10a, with the information for the newcomers; the new information, for the NYBR, appears in the two right-hand panels. For ease of presentation, we omit repeating the definitions of newcomer and NYBR and the meaning of the asterisks, both of which are the same as in the previous tables.

CARIBBEAN NEWCOMERS		MAINLAND NEWCOMERS		CARIBBEAN NYBR		MAINLAND NYBR	
	Exp(B)		Exp(B)		Exp(B)		Exp(B)
2SG Spec	3.22**	3SG	3.21**	2SG Spec	2.59**	3SG	3.07**
2SG Nonspec	3.13**	1SG	1.98*	2SG Nonspec	1.93**	2SG Spec	2.20**
3SG	1.09	2SG Spec	1.19	1SG	1.62**	1SG	1.98**
1SG	1.04	2SG Nonspec	0.61**	3SG	1.54**	2SG Nonspec	0.66
3PL	0.30**	3PL	0.58**	1PL	0.28**	3PL	0.50**
1PL	0.29**	1PL	0.37**	3PL	0.27**	1PL	0.23**
N verbs = 8,583		*N* verbs = 8,155		*N* verbs = 4,737		*N* verbs = 6,712	
N informants = 19		*N* informants = 20		*N* informants = 14		*N* informants = 14	

TABLE 10b. Hierarchies of constraints within the Person variable (logistic regression).

A comparison of the panels on the left with the panels on the right of Table 10b reveals that over the course of one immigrant generation there has been considerable convergence between the regions with regard to rankings and significance of the con-

straints on Person, a finding that lends considerable support to the dialect contact hypothesis. The converging changes from the newcomer stage to the NYBR stage can be summarized as follows.

Regions are converging with respect to the 1SG Person.

- In the Spanish of newcomers (left side of Table 10b), 1SG Person differs in rank and significance between the regions. It does not have a significant impact on pronoun use among Caribbeans, but its influence on pronoun use and ranking is strong among Mainlanders, for whom it ranks second.
- In the Spanish of the NYBR (right side of Table 10b), 1SG Person significantly predicts pronoun use and is ranked third in both regions. Particularly noteworthy is the convergent direction of change. Among Caribbeans, 1SG Person has moved up in the hierarchy from fourth to third; among Mainlanders, it has moved down from second to third.

Regions are converging with respect to the 2SG Specific.

- In the Spanish of newcomers, 2SG Person Specific differs in rank and significance between the regions. It significantly influences pronoun use and ranks first among Caribbeans, but does not significantly predict the pronoun use of Mainlanders.
- In the Spanish of the NYBR, 2SG Specific significantly predicts pronoun use for both regions but, while it retains its first place ranking among Caribbeans, it has changed for Mainlanders from nonsignificant to significant, and moved from third to second place.

Regions are converging with respect to the 2SG Person Nonspecific.

- In the Spanish of newcomers, 2SG Person Nonspecific is ranked second and significantly favors overts among Caribbeans, but it is ranked fourth and significantly favors nulls among Mainlanders.
- In the Spanish of the NYBR, the 2SG Person Nonspecific maintains its significant second place among Caribbeans. But Mainlanders, whose newcomers significantly favored nulls for 2SG Person Nonspecific, have moved this constraint into the nonsignificant range in their NYBR generation, favoring neither nulls nor overts.

Regions are converging with respect to the 3SG Person.

- For newcomers, 3SG Person is the strongest constraint among Mainlanders but it is nonsignificant among Caribbeans.
- For the NYBR, 3SG Person continues to be the strongest constraint among Mainlanders, while among Caribbeans it has increased its Exp(B) and gone from nonsignificant to significant.

Regions are not converging with respect to 1PL Person and 3PL Person.

- The data indicate that the plural persons are not involved in convergence because they were similar to begin with, that is, they significantly favored nulls in both regions among newcomers and continue to do so among the NYBR.

In sum, the differences in Person constraint hierarchies between Caribbeans and Mainlanders at the newcomer and NYBR stages are unambiguous. While the two plural persons remain unchanged, all four Person constraints in the singular have undergone changes over the course of one generation. This process includes extreme cases of convergence, for example, a constraint that is not significant in one of the regions for one generation becomes significant for the next generation by moving in the direction

of the other region (1SG Person and 3SG Person among Caribbeans, 2SG Person Specific among Mainlanders), and a constraint that clearly favors one form of the pronoun in one generation no longer favors it in the next, moving in the direction of the other region (2SG Person Nonspecific among Mainlanders). Other changes are less extreme, but noteworthy for the accommodation involved. When we compare the hierarchies for the NYBR stage with those of the newcomer stage, we see that the importance of the 1SG Person and 3SG Person has increased among Caribbeans but decreased among Mainlanders (mutual accommodation among speakers of the NYBR generation), while both 2SG Person forms have kept their importance among Caribbeans but increased their importance among Mainlanders (more accommodation of NYBR Mainlanders to NYBR Caribbeans than vice versa).

The changes that have taken place between the newcomer and NYBR stages reveal a process of accommodation between the speakers from the two regions that is for the most part mutual and bidirectional, but slightly tilted in the direction of greater accommodation of Mainlanders to Caribbeans than vice versa. The suggestion in these data that dialect leveling in Spanish in New York involves somewhat greater movement in the direction of Caribbean usage than in the direction of Mainland usage accords well with the perception that NYC Latinos have about their daily lives. We asked our interviewees about the extent of their contact with members of the other regional group, ranging from none (1) to high (4).[17] Caribbean responses are in Table 11a, and those of Mainlanders in Table 11b.

	N SPEAKERS	CONTACT WITH OTHER REGION	S.D.
Newcomers	19	2.42	0.96
NYBR	14	2.50	0.86

$F = 0.06$
$p > 0.05$
n.s.
Newcomers: Age of arrival > 16 and YrsNYC < 6
NYBR: Age of arrival < 3.1 or born in NYC

TABLE 11a. Caribbeans' reported contact with Mainlanders (ANOVA on a four-point Likert scale).

	N SPEAKERS	CONTACT WITH OTHER REGION	S.D.
Newcomers	20	2.50	0.95
NYBR	14	3.14	0.77

$F = 4.40$
$p < 0.05$
Newcomers: Age of arrival > 16 and YrsNYC < 6
NYBR: Age of arrival < 3.1 or born in NYC

TABLE 11b. Mainlanders' reported contact with Caribbeans (ANOVA on a four-point Likert scale).

Table 11a shows that Caribbean NYBR do not differ from Caribbean newcomers significantly in their amount of contact with Mainlanders, which is above mid-level for both groups. In contrast, Table 11b shows that Mainlander NYBR differ markedly from Mainlander newcomers. Mainlanders who have spent most of their lives in NYC

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[17] The actual wording of the questionnaire asked about amount of contact with speakers from each of the six countries in the study, not about contact with the 'other group'. To arrive at the figures in Tables 11a and 11b, the score for Cubans, Dominicans, and Puerto Ricans is the aggregate amount of their contact with Colombians, Ecuadorians, and Mexicans; the process was reversed to arrive at a score for Mainlander contact with Caribbeans.

have significantly more contact with Caribbeans than the recent immigrants from the Mainland.

These data help fill out the overall picture painted by the results of the constraint hierarchies in Table 10b, that is, a portrait of Caribbean speakers who, in the course of one apparent-time generation, have learned to use subject personal pronouns in a manner that resembles the Mainland pattern, and of Mainland speakers who have learned to use them in a manner that resembles the Caribbean pattern. The constraint hierarchies for the two regions among the NYBR remain different, but they resemble each other much more than they did at the newcomer stage. Speakers who at the newcomer stage appeared to belong to two distinct speech communities are now, at the NYBR stage, moving toward constituting a single community.

7. Summary and conclusions: language and dialect contact in the formation of a new speech community. Our investigation of language and dialect contact in Spanish in NYC, centered on the study of the variable use of subject personal pronouns, is based on a corpus of transcribed speech obtained from a stratified sample of 142 speakers with origins in six Latin American countries, whose interviews contain over 63,000 finite clauses that have been coded for ten linguistic and thirty-five sociodemographic variables. When the Spanish that newcomers bring to NYC is analyzed for its dialectal characteristics in terms of rates of overt pronouns, the national distinctions among speakers from the six countries of the sample fail to attain the necessary pair-wise statistical significance, whereas a two-way regional distinction between Caribbeans and Mainlanders is well supported.

An apparent-time, cross-generational comparison between pronoun rates in the Spanish of thirty-nine newcomers to the City and twenty-eight speakers who are New York born and/or raised (NYBR) is highly revealing. The passage of one apparent-time generation in NYC produces a significant change in occurrence rates of overt pronouns that provides strong evidence for language contact influence from English on Spanish, as well as clear, though somewhat less conclusive, evidence for dialect contact influence of Caribbeans on Mainlanders, and of Mainlanders on Caribbeans.

With regard to language contact, we detect, in the course of one apparent-time generation, increases in the occurrence rates of overt pronouns that are large and statistically significant. This result is not limited to a particular regional group within the second generation, as it holds true for both Caribbeans and Mainlanders. We attribute the increase in pronoun rates to the widespread bilingualism of the NYBR generation, which is concomitant with diminished levels of skills in, and frequency of use of, Spanish. These general considerations are bolstered by the specific characteristics of our sample, because the NYBR report knowing less Spanish and using it less frequently than the newcomers, a set of facts that increases their susceptibility to English. This susceptibility is rooted in the pattern of similarities and differences between the pronominal systems of the two languages, which are nearly the same with regard to paradigmatic distribution and syntactic placement but very different with regard to occurrence rates and conditioning factors.

With regard to dialect contact, inconclusive results are obtained when only occurrence rates are studied. We do find that the increase in rates from one generational group to the next is greater in Mainlanders, whose rate of overtness is being pushed up by two linguistic codes with high rates of overt pronouns, namely English and Caribbean Spanish. And we do see that, consequently, the differences between the regions are less marked among the NYBR than among speakers from the newcomer generation. But

the interaction between region and generation fails to achieve statistical significance, rendering these results inconclusive and thus setting the stage for an analysis based on variable and constraint hierarchies

Proceeding from the bivariate analysis based on occurrence rates to a multivariate analysis using logistic regression, we discover that variable hierarchies are not highly differentiated by region among the newcomers and that they undergo relatively little change in the course of one apparent-time generation. These findings suggest a more general pattern in which variable hierarchies tend to show uniformity between dialects and stability between generations. Variable hierarchies thus provide only limited information regarding the short-term evolution of language, in this case the short-term evolution of Spanish in NYC.

In order to proceed from the study of variable hierarchies to the analysis of constraint hierarchies, we take advantage of the discovery that, in both regional groups and at both generational stages, the variable Person of the verb ranks at the top of all four variable hierarchies studied, accounting for the most variance in both regions in both generations. But within this Person variable, the ranking of constraints is so different in Caribbean and Mainland newcomers that the two regions may be regarded as two different speech communities or subcommunities. Turning to a cross-generational analysis, we find that the constraint hierarchies of Caribbean and Mainland NYBR speakers have converged considerably when compared to the hierarchies of Caribbean and Mainland newcomers. The changes in constraint hierarchies within the variable Person from one generational stage to the next are broad and deep, encompassing changes in the significance, rank, and values of several constraints. The changes in the hierarchies for the constraints within the variable Person take place in both regional groups, and demonstrate that, at least with regard to pronominal usage, and at least with regard to the Person variable, speakers of Spanish in New York are actively accommodating one another and leveling their differences.

To the extent that Mainlander Spanish is generally regarded in the Spanish-speaking world as more prestigious than Caribbean Spanish (due, in part, to the greater conservatism of its phonology and its verbal morphosyntax; cf. Guitart 1982, Zentella 1990), this mutually accommodating behavior is surprising. Pronominal usage in NYC is not moving in the direction of the Mainlanders, but rather is changing in a mutually accommodating pattern, with a slight tilt toward greater accommodation of Mainlanders to Caribbeans. This bidirectional accommodation with a touch of Caribbeanization may not necessarily be inconsistent with the greater social prestige of Mainlander Spanish. Rather, the accommodation to Caribbean usage could reflect the fact that Caribbean Spanish may have acquired some measure of local prestige, due to the community's much longer residence in NYC and its larger numbers; its greater experience with, and knowledge of, City life; the higher rank of Caribbeans in many of the settings where members of both communities work together; and the association of Caribbean speech with cultural forms, such as Caribbean music, that may have had positive social value during the formative years of the NYBR. Accordingly, while the overt prestige accorded to conservative dialects pushes Caribbeans in the direction of Mainland patterns, the covert prestige of urban youth culture, in which Caribbeans play a leading role, encourages Mainlanders to adopt Caribbean ways of speaking. The youth of our newcomer and NYBR samples in particular (twenty-eight and thirty years of average age respectively) and the youth of the City's Latinos in general (average age twenty-seven) underscore the significance of the changes we have documented for the future of Spanish in New York.

While our focus here has been on empirical findings, the results are relevant to the theoretical discussion surrounding language variation, contact, and change. The many cross-regional and cross-generational differences observed in Tables 10a and 10b distinguish the heterogeneity and malleability of constraint hierarchies from the relative uniformity and stability observed in variable hierarchies in Tables 9a and 9b. These facts suggest that short-range diachrony can be more readily observed in changes in the strength of predictive constraints within variables than in changes in the amounts of variance explained by the variables themselves.[18]

Because the bilingualism of immigrants such as NYC Latinos tends to last for only two or three generations, settings of the sort we study here have not been favored in the search for the structural consequences of bilingualism, a search that has obtained better results in longer-lasting bilingual situations (Sankoff 2002:655ff., Thomason & Kaufman 1988). Still, the differences that we have documented for New York and the changes inferable from them take place in the space of one generation, suggesting that external influences on grammar or discourse/pragmatics do not necessarily require long-term bilingualism, but can be detected within the short span of immigrant bilingualism. Dialect contact tends to be a unidirectional process, resulting in the accommodation of the less socially or demographically dominant speakers to the ways of the more dominant ones. In this light, the bidirectionality of our findings should prove of considerable interest to students of contact between dialects (Trudgill 1986). The changes we have documented may be relevant also to the still unresolved question of whether, and if so how and where, grammar can be altered by external forces under language or dialect contact (King 2000, Lapidus & Otheguy 2005a,b, Muysken 2004, Silva-Corvalán 1994: 166, 1995, 1998). To the extent that it makes sense to postulate a quantified or probabilistic mental grammar reflecting stochastic processes, a position long held within the variationist model used here (Cedergren & Sankoff 1974, Clark 2005, Guy 2005, 2007), our documentation, on the one hand, of differences in occurrence rates and the subsequent inference of change under the influence of English that they permit, and on the other hand of differences in constraint hierarchies under cross-dialectal influences, provides evidence that grammar changes under contact. Within the more compartmentalized conception provided by Montrul (2004), some parts of the grammar of the Spanish of our NYBR would be seen as changing, others as remaining identical to that of the newcomers. And within the position adopted by Newmeyer (2003, 2006), where probabilistic considerations are always outside the grammar, no grammatical changes at all would distinguish the newcomers from the NYBR. The proposal here that NYC Latinos belonging to the NYBR generation constitute a better delineated speech community than do newcomers to the City contributes to the still active debate over the proper formulation of the concept of speech community (Patrick 2002). And finally, the contention here that the increases in occurrence rates provide clear evidence of influence from English may be countered by the view that NYC Latinos are engaging instead in a language-internal process of simplification, involving the gradual elaboration of a system that, by reducing available alternatives, ends up being simpler and diminishes thereby the cognitive burdens of bilingualism, a scenario that implicates the contact setting, but not the contact languages, as the causative factor (Lapidus & Otheguy 2005a,b, Otheguy & Lapidus 2003, Silva-Corvalán 1994). These and many other theo-

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[18] For another example of what amounts to cross-dialectal similarities in variable hierarchies, see the Ranges in the factor groups associated with the dependent variable (use of English *going to*) in four out of the five varieties of English studied in Tagliamonte 2002:751.

retical questions that arise from the present work, which is primarily intended as a report of empirical findings on language and dialect contact in NYC, are left for future discussion.

APPENDIX: INDEPENDENT VARIABLES (FACTOR GROUPS) AND THEIR CONSTRAINTS

Each of the clauses in the study was coded for each one of the following variables, which were used in the logistic regression analysis.

TYPE OF DISCOURSE WHERE THE VERB APPEARS (GENRE)

- Verb is not in narrative, it's a response to a question
- Verb is not in narrative, it's a response to a comment
- Verb is in a narrative
- Other

PERSON AND NUMBER OF THE VERB (PERSON)

- First-person singular
- Second-person singular nonspecific
- Second-person singular specific
- Third-person singular
- First-person plural
- Third-person plural

TENSE-MOOD-ASPECT OF THE FINITE VERB (TENSE)

- Present
- Preterite
- Imperfect
- Future
- Conditional
- Imperative
- Perfect
- Subjunctive (all tenses)

REFLEXIVE OR NONREFLEXIVE USE OF THE VERB (REFLEXIVE)

- Verb is NOT used reflexively
- Verb is used reflexively

SPECIFIC OR NONSPECIFIC REFERENCE (SPECIFIC)

- Nonspecific: The speaker makes reference to a specific entity that is not identifiable or is using the verb nonreferentially.
- Specific: The speaker makes reference to a specific and identifiable entity.

DISCOURSE CONNECTION BETWEEN VERBS (CONNECT)

- Same reference, same TMA
- Same reference, different TMA
- Different reference

TYPE OF LEXICAL CONTENT OF THE VERB (LEXICAL)

- Mental or estimative verb
- Stative verb
- External action verb

CLAUSE TYPE WHERE THE VERB APPEARS (CLAUSE)

- Main clause
- Subordinate: Relative
- Subordinate: Argument
- Subordinate: Other
- Coordinate
- Other

APPEARANCE OF THE VERB IN A SET PHRASE (SET PHRASE)

- Verb is in a set phrase
- Verb is not in a set phrase

SECTION OF THE INTERVIEW WHERE THE CLAUSE IS FOUND (PICTURE)

- Verb appears in the short Picture section of the interview
- Verb appears in the main Free section of the interview

REFERENCES

AMARAL, PATRÍCIA MATOS, and SCOTT A. SCHWENTER. 2005. Contrast and the (non-)occurrence of subject pronouns. *Selected proceedings of the 7th Hispanic Linguistics Symposium*, ed. by David Eddington, 116–27. Somerville, MA: Cascadilla.

AVILA-JIMÉNEZ, BÁRBARA I. 1995. A sociolinguistic analysis of a change in progress: Pronominal overtness in Puerto Rican Spanish. *Cornell Working Papers in Linguistics* 13.25–47.

BARRENECHEA, ANA MARÍA, and ALICIA ALONSO. 1977. Los pronombres personales sujetos en el español hablado en Buenos Aires. *Estudios sobre el español hablado en las principales ciudades de América*, ed. by Juan M. Lope Blanch, 333–49. Mexico City: Universidad Nacional Autónoma de México.

BAYLEY, ROBERT. 2002a. The quantitative paradigm. In Chambers et al., 117–41.

BAYLEY, ROBERT. 2002b. The study of variable subject personal pronouns: Methodological and analytical issues. Paper presented at NWAV 31, 10–13 October 2002, Stanford University.

BAYLEY, ROBERT, and LUCINDA PEASE-ALVAREZ. 1996. Null and expressed pronoun variation in Mexican-descent children's Spanish. *Sociolinguistic variation: Data, theory, and analysis*, ed. by Jennifer Arnold, Renée Blake, and Brad Davidson, 85–99. Stanford, CA: CSLI Publications.

BAYLEY, ROBERT, and LUCINDA PEASE-ALVAREZ. 1997. Null pronoun variation in Mexican-descent children's narrative discourse. *Language Variation and Change* 9.349–71.

BENTIVOGLIO, PAOLA. 1987. *Los sujetos pronominales de primera persona en el habla de Caracas*. Caracas: Central University of Venezuela.

BERMAN, RUTH A., and DAN I. SLOBIN. 1994. Narrative structure. *Relating events in narrative: A crosslinguistic developmental study*, ed. by Ruth A. Berman and Dan I. Slobin, 39–54. Hillsdale, NJ: Lawrence Erlbaum.

BILLS, GARLAND B.; ALAN HUDSON; and EDUARDO HERNÁNDEZ CHÁVEZ. 2000. Spanish home language use and English proficiency as differential measures of language maintenance and shift. *Southwest Journal of Linguistics* 19.11–27.

CAMERON, RICHARD. 1993. Ambiguous agreement, functional compensation, and nonspecific *tú* in the Spanish of San Juan, Puerto Rico, and Madrid, Spain. *Language Variation and Change* 5.305–34.

CAMERON, RICHARD. 1995. The scope and limits of switch reference as a constraint on pronominal subject expression. *Hispanic Linguistics* 6/7.1–27.

CAMERON, RICHARD. 1996. A community-based test of a linguistic hypothesis. *Language in Society* 25.61–111.

CAMERON, RICHARD, and NYDIA FLORES-FERRÁN. 2004. Perseveration of subject expression across regional dialects of Spanish. *Spanish in Context* 1.41–65.

CEDERGREN, HENRIETTA J., and DAVID SANKOFF. 1974. Variable rules: Performance as a statistical reflection of competence. *Language* 50.333–55.

CHAMBERS, J. K. 2002. Studying language variation: An informal epistemology. In Chambers et al., 3–14.

CHAMBERS, J. K.; PETER TRUDGILL; and NATALIE SCHILLING-ESTES (eds.) 2002. *The handbook of language variation and change*. Oxford: Blackwell.

CHOMSKY, NOAM. 1982. *Some concepts and consequences of the theory of government and binding*. Cambridge, MA: MIT Press.

CLARK, BRADY. 2005. On stochastic grammar. *Language* 81.207–17.

COTE, S. A. 1996. *Grammatical and discourse properties of null arguments in English*. Philadelphia: University of Pennsylvania dissertation.

COTTON, ELEANOR GREET, and JOHN M. SHARP. 1988. *Spanish in the Americas*. Washington, DC: Georgetown University Press.

ELIZAINCÍN, ADOLFO. 2002. Diacronía del contexto español-portugués. *La romania americana: Procesos lingüísticos en situaciones de contacto*, ed. by Norma Díaz, Ralph Ludwig, and Stefan Pfänder, 255–61. Madrid: Iberoamericana.

ENRÍQUEZ, EMILIA V. 1984. *El pronombre personal sujeto en la lengua española hablada en Madrid*. Madrid: Consejo Superior de Investigaciones Científicas.

FLORES, NYDIA, and JEANNETTE TORO. 2000. The persistence of dialect features under conditions of contact and leveling. *Southwest Journal of Linguistics* 19.31–42.

FLORES-FERRÁN, NYDIA. 2004. Spanish subject personal pronoun use in New York City Puerto Ricans: Can we rest the case for English contact? *Language Variation and Change* 16.49–73.

GUITART, JORGE M. 1982. Conservative versus radical dialects in Spanish: Implications for language instruction. *Bilingual education for Hispanic students in the United States*, ed. by Joshua A. Fishman and Gary D. Keller, 167–77. New York: Teachers College Press.

GUMPERZ, JOHN J. 1968. Linguistics: The speech community. *International encyclopaedia of the social sciences*, 381–86. New York: Macmillan.

GUY, GREGORY R. 1980. Variation in the group and the individual: The case of final stop deletion. *Locating language in time and space*, ed. by William Labov, 1–36. New York: Academic Press.

GUY, GREGORY R. 1993. The quantitative analysis of linguistic variation. *American dialect research*, ed. by Dennis R. Preston, 223–49. Amsterdam: John Benjamins.

GUY, GREGORY R. 2005. Grammar and usage: A variationist response. *Language* 81.561–63.

GUY, GREGORY R. 2007. Grammar and usage: The discussion continues (Letter to *Language*). *Language* 83.2–4.

HAEGEMAN, LILIANE. 1990. Non-overt subjects in diary contexts. *Grammar in progress: GLOW essays for Henk van Riemsdijk*, ed. by Joan Mascaró and Marina Nespor, 167–74. Dordrecht: Foris.

HENRÍQUEZ UREÑA, PEDRO. 1921. Observaciones sobre el español en América. *Revista de Filología Española* 8.357–90.

HENRY, ALISON. 2002. Variation and syntactic theory. In Chambers et al., 117–41.

HOSMER, DAVID W., and STANLEY LEMESHOW. 2000. *Applied logistic regression*. New York: Wiley.

JAEGGLI, OSVALDO, and KENNETH J. SAFIR (eds.) 1989. *The null subject parameter*. Dordrecht: Kluwer.

KING, RUTH ELIZABETH. 2000. *The lexical basis of grammatical borrowing: A Prince Edward Island French case study*. Amsterdam: John Benjamins.

KLEIN-ANDREU, FLORA. 1985. La cuestión del anglicismo: Apriorismos y métodos. *Thesaurus* 40.533–48.

LABOV, WILLIAM. 1963. The social motivation of a sound change. *Word* 19.273–309.

LABOV, WILLIAM. 1994. *Principles of linguistic change, vol. 1: Internal factors*. Oxford: Blackwell.

LAPIDUS, NAOMI, and RICARDO OTHEGUY. 2005a. Contact induced change? Overt nonspecific *ellos* in Spanish in New York. *Selected proceedings of the 2nd Workshop on Spanish Sociolinguistics*, ed. by Lotfi Sayahi and Maurice Westmoreland, 67–75. Somerville, MA: Cascadilla.

LAPIDUS, NAOMI, and RICARDO OTHEGUY. 2005b. Overt nonspecific *ellos* in Spanish in New York. *Spanish in Context* 2.157–74.

LIPSKI, JOHN M. 1994. *Latin American Spanish*. London: Longman.

LIPSKI, JOHN M. 1996. Patterns of pronominal evolution in Cuban-American bilinguals. *Spanish in contact: Issues in bilingualism*, ed. by Ana Roca and John B. Jensen, 159–86. Somerville, MA: Cascadilla.

LOPE BLANCH, JUAN M. 1968. *El español de América*. Madrid: Ediciones Alcalá.

LÓPEZ-MORALES, HUMBERTO. 1992. *El español del Caribe*. Madrid: Editorial MAPFRE.

MACÍAS, REYNALDO. 2000. The flowering of America: Linguistic diversity in the United States. In McKay & Wong, 11–57.

MCKAY, SANDRA, and SAU-LING CYNTHIA WONG. 2000. *New immigrants in the United States*. Cambridge: Cambridge University Press.

MONTRUL, SILVINA. 2004. Subject and object expression in Spanish heritage speakers: A case of morphosyntactic convergence. *Bilingualism: Language and Cognition* 7.125–42.

MORALES, AMPARO. 1997. La hipótesis funcional y la aparición del sujeto no nominal: El español de Puerto Rico. *Hispania* 80.153–65.

MUYSKEN, PIETER. 2004. Two linguistic systems in contact: Grammar, phonology and lexicon. *The handbook of bilingualism*, ed. by Tej K. Bhatia and William C. Ritchie, 147–68. Malden, MA: Blackwell.

NEWMEYER, FREDERICK J. 2003. Grammar is grammar and usage is usage. *Language* 79.682–707.

NEWMEYER, FREDERICK J. 2006. Grammar and usage: A response to Gregory R. Guy (Letter to *Language*). *Language* 82.705–6.

OTHEGUY, RICARDO, and NAOMI LAPIDUS. 2003. An adaptive approach to noun gender in New York contact Spanish. *A Romance perspective on language knowledge and use*, ed. by Rafael Núñez-Cedeño, Luis López, and Richard Cameron, 209–29. Amsterdam: John Benjamins.

OTHEGUY, RICARDO, and ANA CELIA ZENTELLA. 2007. Apuntes preliminares sobre el contacto lingüístico y dialectal en el uso pronominal del español en Nueva York. *Spanish in contact: Educational, social and linguistic inquiries*, ed. by Richard Cameron and Kim Potowski, 275–96. Amsterdam: John Benjamins.

PATRICK, PETER L. 2002. The speech community. In Chambers et al., 573–97.

POPLACK, SHANA. 2000. Introduction. *The English history of African American English*, by Shana Poplack, 1–34. Oxford: Blackwell.

POPLACK, SHANA, and DAVID SANKOFF. 1987. The Philadelphia story in the Spanish Caribbean. *American Speech* 62.291–314.

POPLACK, SHANA, and SALI TAGLIAMONTE. 1999. The grammaticalization of *going to* in (African American) English. *Language Variation and Change* 11.315–42.

PORTES, ALEJANDRO, and RUBÉN G. RUMBAUT. 2001. *Legacies: The story of the immigrant second generation*. Berkeley: University of California Press.

ROEVER, CARSTEN, and DONALD E. POWERS. 2005. *Effects of language of administration on a self-assessment of language skills*. Princeton, NJ: Educational Testing Service.

ROMAINE, SUZANNE. 1982. What is a speech community? *Sociolinguistic variation in speech communities*, ed. by Suzanne Romaine, 13–24. London: Arnold.

RONA, JOSÉ PEDRO. 1964. El problema de la división del español americano en zonas dialectales. *Presente y futuro de la lengua española*, vol. 1, 215–26. Madrid: Ediciones Cultura Hispánica.

SANKOFF, GILLIAN. 2002. Linguistic outcomes of language contact. In Chambers et al., 638–68.

SEBASTIÁN, EUGENIA, and DAN I. SLOBIN. 1994. Development of linguistic forms: Spanish. *Relating events in narrative: A crosslinguistic developmental study*, ed. by Ruth A. Berman and Dan I. Slobin, 239–84. Hillsdale, NJ: Lawrence Erlbaum.

SILVA-CORVALÁN, CARMEN. 1982. Subject expression and placement in Mexican-American Spanish. *Spanish in the United States: Sociolinguistic aspects*, ed. by Jon Amastae and Lucía Elías-Olivares, 93–120. Cambridge: Cambridge University Press.

SILVA-CORVALÁN, CARMEN. 1986. Bilingualism and language change: The extension of *estar* in Los Angeles Spanish. *Language* 62.587–608.

SILVA-CORVALÁN, CARMEN. 1994. *Language contact and change: Spanish in Los Angeles*. Oxford: Oxford University Press.

SILVA-CORVALÁN, CARMEN. 1995. The study of language contact: An overview of the issues. *Spanish in four continents: Studies in language contact and bilingualism*, ed. by Carmen Silva-Corvalán, 3–14. Washington, DC: Georgetown University Press.

SILVA-CORVALÁN, CARMEN. 1997a. Avances en el estudio de la variación sintáctica: La expresión del sujeto. *Cuadernos del Sur* 27.35–49.

SILVA-CORVALÁN, CARMEN. 1997b. Variación sintáctica en el discurso oral: Problemas metodológicos. *Trabajos de sociolingüística hispánica*, ed. by Francisco Moreno Fernández, 115–35. Alcalá de Henares: Universidad de Alcalá.

SILVA-CORVALÁN, CARMEN. 1998. On borrowing as a mechanism of syntactic change. *Romance linguistics: Theoretical perspectives*, ed. by Armin Schwegler, Bernard Tranel, and Myriam Uribe-Etxebarria, 225–46. Amsterdam: John Benjamins.

SILVA-CORVALÁN, CARMEN. 2001. *Sociolingüística y pragmática del español*. Washington, DC: Georgetown University Press.

SUÑER, MARGARITA. 2003. The lexical preverbal subject in a Romance null subject language. *A Romance perspective on language knowledge and use*, ed. by Rafael Núñez-Cedeño, Luis López, and Richard Cameron, 341–57. Amsterdam: John Benjamins.

TAGLIAMONTE, SALI. 2002. Comparative sociolinguistics. In Chambers et al., 729–63.

THOMASON, SARAH GREY, and TERRENCE KAUFMAN. 1988. *Language contact, creolization, and genetic linguistics*. Berkeley: University of California Press.

TORIBIO, ALMEIDA JACQUELINE. 2000. Setting parametric limits on dialectal variation in Spanish. *Lingua* 10.315–41.

TORIBIO, ALMEIDA JACQUELINE. 2004. Convergence as an optimization strategy in bilingual speech: Evidence from code-switching. *Bilingualism: Language and Cognition* 7.165–73.

TRAVIS, CATHERINE. 2005. The *yo-yo* effect: Priming in subject expression in Colombian Spanish. *Selected papers from the 34th Linguistic Symposium on Romance Languages (LSRL), Salt Lake City, 2004*, ed. by Randall Gess and Edward J. Rubin, 329–49. Amsterdam: John Benjamins.

TRAVIS, CATHERINE E. 2007. Genre effects on subject expression in Spanish: Priming in narrative and conversation. *Language Variation and Change* 19.101–35.

TRUDGILL, PETER. 1986. *Dialects in contact*. Oxford: Blackwell.

VELTMAN, CALVIN. 2000. The American linguistic mosaic: Understanding language shift in the United States. In McKay & Wong, 58–95.

ZAMORA MUNNÉ, JUAN C., and JORGE M. GUITART. 1982. *Dialectología hispanoamericana: Teoría, descripción, historia*. Salamanca: Publicaciones del Colegio de España.

ZENTELLA, ANA CELIA. 1990. Lexical leveling in four New York City Spanish dialects: Linguistic and social factors. *Hispania* 73.1094–105.

ZENTELLA, ANA CELIA. 1997. *Growing up bilingual: Puerto Rican children in New York*. Oxford: Blackwell.

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