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Abstract

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Keywords

Variationist comparative method, language change, language contact

Disciplines

Spanish Linguistics

Using the variationist comparative method to examine the role of language contact in synthetic and periphrastic verbs in Spanish

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Abstract

Language contact and linguistic change are thought to go hand in hand (e.g. Silva-Corvalán 1994), however there are methodological obstacles, such as collecting data at different points in time or the availability of monolingual data for comparison, that make claims about language change tenuous. The present study draws on two different corpora of spoken Spanish – bilingual New Mexican Spanish and monolingual Ecuadorian Spanish – in order to quantitatively assess the convergence hypothesis in which contact with English has produced a change to the Spanish verbal system, as reflected in an extension of the Present and Past Progressive forms at the expense of the synthetic Simple Present and Imperfect forms. The data do not show that the Spanish spoken by the bilinguals is changing to more closely resemble the analogous English

progressive constructions, but instead suggest potential weakening of linguistic constraints on the conditioning of the variation between periphrastic and synthetic forms.

1. Introduction

Linguistic variation, or alternate ways of encoding the same message, is directly related to language change. Linguistic variation is an inherent part of any language and external forces can motivate linguistic change within a speech community, yielding, over time, a change in the linguistic inventory or distribution of forms used to convey a concept. Language contact in particular is thought to accelerate the pace of change and particular types of changes are thought to be favored, such as the simplification of morphological paradigms or the expansion of certain constructions in the minority language when these reflect similar constructions in the dominant one (cf. Gutiérrez 2003; Silva-Corvalán 1986 & 1994). Specifically, Silva-Corvalán (1994:6) proposed that a shift from synthetic to periphrastic constructions is one type of linguistic change observed in situations of language contact. One problem with the accelerated change hypothesis is that it is difficult to test, given that we do not know the rate of change in the absence of contact (cf. Poplack et al. 2012:250). However differences in the linguistic conditioning between two varieties, a bilingual and monolingual variety, may provide the first indicators of change.

This paper examines the variation present between two verb tenses in Spanish that show alternation between synthetic and periphrastic forms: the alternation between the simple present and the present progressive, as in (1) and (2), and the alternation between the imperfect and the past progressive, as illustrated in (3) and (4). The primary objectives are to quantitatively study

both the frequency and the linguistic conditioning of these synthetic and periphrastic forms in order to apply the variationist comparative method in the evaluation of whether or not contact induced change is indeed occurring.

(1) Simple present

pero ahora ya no trabaja ahí.
'but (he) doesn't work there any more'

(Francisco, Vacaciones:34ⁱ,M)

(2) Present Progressive

ya no está trabajando,
'he isn't working any more'

(Adán, Chicas:572,M)

(3) Imperfect

(H) .. y luego yo y ella pintábamos.
'(H) .. and then she and I painted.'

(Ivette, El Túnico:09:16B)

(4) Past Progressive

y que estábamos pintando las –
'and that we were painting the –'

(Ivette, El Túnico:09:38,B)

The data for this study come from two distinct datasets: one comprised of bilingual (Spanish-English) individuals and one comprised of monolinguals. In line with existing theories of language change, the bilingual data should show both an increase in rates of periphrastic forms and an acceleration of the inherent changes occurring to the newer periphrastic forms. Yet, as described below, the changes evident are not so straightforward.

The hypotheses and rationale for the hypotheses draw from the similarity of the constructions under question by analyzing their patterns in a bilingual and a monolingual setting. The present progressive and the past progressive are analogous to English progressives, as all of

these constructions consist of a copula verb plus a gerund. Because of this similarity, the contact-induced change hypothesis proposes that these periphrastic constructions will be favored in situations of contact with English, as is the case in New Mexican Spanish. In addition, the greater employment of this parallel construction, as opposed to the synthetic present tense or imperfect tense, provides another site in which speakers might engage in morphosyntactic bilingual behavior, as exemplified by the usage of the bilingual compound verb in (5) below. Not only are smooth and rapid code-switching and widespread borrowing characteristics of this community (Gonzales 1999), but many speakers also produce emergent compound verbs whose elements go beyond usage patterns of the source languages (cf. Wilson & Dumont 2014; Wilson 2013). Because many facets of bilingual linguistic creativity are acceptable in this speech community, a rational hypothesis is that speakers will, through analogy, seek those forms that provide grammatically similar structures in superficial form. The penchant for bilingual behavior and the cross-linguistic analogical associations between constructions may produce higher rates of the present and past progressives as compared to the simple present and the imperfect in the bilingual data.

(5) Code switch in a progressive construction

.. pe- estaba participating con nosotros.

‘.. bu- (she) was participating with us’

(Ivette, El Túnico:07:54,B)

The analysis presented here takes place in two parts. The first is a comparison of rates of synthetic to periphrastic verb forms between the datasets. The second is a multivariate analysis of the factors (sex, lexical aspect, sentence aspect, presence/absence of a temporal adverb, presence/absence of a locative adverb, clause type, and presence/absence of code-switching in

the surrounding discourse) contributing to the selection of one form over the other, in order to better gauge the linguistic constraints on each form through the variationist comparative method (cf. Poplack & Levey 2010).

2. The variable context

In order to determine the linguistic conditioning of the variants, the variable context must first be circumscribed. We found in these data that the past progressive and imperfect share territory of habitual aspect as in (6) and (7), as well as progressive (8) and (9) and continuous aspects (10) and (11) (see Bybee, Pagliuca & Perkins (1994) for descriptions of these terms).

(6) Past progressive with habitual aspect

.. que mi papá,
... (H) siempre me estaba --
me estaba diciendo,
ay,
como eres gorda,
ay,
como hablas,
ay,
esto y el otro.
siempre andaba peleando conmigo.

‘.. so my dad,
...(H) was always –
was telling me,
ay,
you’re so fat,
ay,

the way you talk,
this and the other.
he was always fighting with me.'

(Rocío, Las Tortillas:40:47,B)

(7) Imperfect with habitual aspect

hacíamos de todo.
jugábamos como cowbo=ys,

'we used to do everything.
We would play cowboys'

(Miguel, Piedras & Gallinas: 25:17,B)

(8) Past Progressive with progressive aspect

G: ese día estábamos aquí viendo el fútbol,
pues.

R: ajá,
y justo [llegó el Marcolín].

G: [y justo llegó] el Marcolín,

G: 'that day we were here watching soccer,
then.'

R: uh huh,
and right then [Marcolín arrived].

G: [and right then arrived] Marcolín.'

(Gerardo, Café: 1139-1143,M)

(9) Imperfect with progressive aspect

(H) pues un día se le voló el sombrero,
... (H) y --
y= --
y cuando --
cuando se le voló,
...(1.0) venía un carro y lo tropelló.

'(H) well one day his hat flew off,
... (H) and --
a=nd --
and when --
when it flew off,
...(1.0) a car was coming and it ran over it.'

(Rocío, Las Tortillas:18:55,B)

(10) Past progressive with continuous aspect

y estaban ahí viviendo,
'and they were living there'

(Señora Manuelita, Café:1347,M)

(11) Imperfect with continuous aspect

I: [hacía ride con el] Rubencito=,

R: [para comenzar]?

I: ... Suárez,

que vivía allá en la ladera.

I: '[I would ride with] Rubencito=,

R: [to start]?

I: ... Suárez,

that lived on the hillside.'

(Ivette, El Túnico:52':22,B)

The same overlap in progressive (12) and (13), habitual (14) and (15), and continuous (16) and

(17) was found between the Present Progressive and Simple Present.

(12) Present Progressive with progressive aspect

R: [que se está regando el agua] de ahí,

P: [de lunes] --

R: dice la abuelita.

R: '[that the water is spilling] out from there,

P: [since Monday] --

R: says grandma.'

(Rodrigo, Café:4363-4365,M)

(13) Simple present with progressive aspect

mira cómo se riega el agua.

'look how the water is spilling.'

(Paca, Café:4477,M)

(14) Present Progressive with habitual aspect

porque a las seis de la mañana están ya,

vendiendo el pan,

'because at six in the morning they're already,

selling bread,'

(Beatriz, Hermanos:4497-4498,M)

(15) Simple Present with habitual aspect

.. me salgo de la casa como twenty five.

...(1.1) twenty five after?

... after=,
.. of seven.
... after seven y luego,
... (H) trabajo hasta las= .. nine.

‘.. I leave house like twenty five.
...(1.1) twenty five after?
... after=,
.. of seven.
... after seven and then,
... (H) I work until .. nine.’

(Ivette, El Túnico:39:57,B)

(16) Present progressive with continuous aspect
y sí te está gustando la carrera?
‘and yes you’re liking the major?’

(Eva, Viejos Amigos:924,M)

(17) Simple present with continuous aspect

.. that little bottle,
.. qué tanto vale?

‘.. that little bottle,
.. how much is it worth?’

(Fabiola, La Salvia:1072-1073,B)

Excluded from the analysis were lexical items that did not exhibit variation as in common stative verbs such as *estar, ser, tener, haber, saber, necesitar, creer, querer, parecer, conocer, suponer, entender, preferir*. Also excluded were present tense verbs that had future or past temporal reference. Finally, we excluded data from the research assistants conducting the recordings in the NMSEB corpus.

3. Data

The data come from two corpora of spoken Spanish: the New Mexico Spanish English Bilingual corpus (NMSEB, Torres Cacoullós & Travis, in preparation) and a corpus of monolingual Ecuadorian Spanish collected in 2006 (cf. Dumont 2011). See Travis & Torres Cacoullós (2013) for more information on the bilingual corpus. Table 1 summarizes the two corpora.

Table 1: Overview of the two corpora.

	NMSEB	Ecuadorian
Words	90,000 ⁱⁱ	71,000
Time	8 hours	7 hours
Speakers	11	16

The NMSEB is comprised of speech samples of early bilinguals who actively code switch and borrow from one language to another during the course of the recordings, as evidenced in the excerpt (18) below, where the speaker is seen to transition between the two languages seamlessly. The Ecuadorian data, on the other hand, is comprised of the speech of monolinguals, and while there is evidence of the historical contact with Quichua, in attested loanwords and perhaps other morphosyntactic structuresⁱⁱⁱ, the speakers themselves are monolingual Spanish speakers and the situation, at least for the group of Ecuadorians represented in this corpus, is not a contact situation.

(18) Smooth code-switching produced by New Mexican bilingual

- F: ...(0.7) Is he driving to your yard,
or do you have to walk to the road?
M: ... (H) .. yo creo que puede drive into my yard,
solamente que no quiera no.
.. pero,
F: .. oh=
(H) .. and they can bring you a plate,
pero you might as well go over there para que,
mires a la gente.

(Fabiola & Molly, La Salvia:25:05,B)

The choice to compare these two varieties was based in large on the availability of adequate corpora with which to investigate the variation in question. As has been noted (cf. Schwenter 2011:125), morphosyntactic tokens are much rarer than phonological tokens, and one must have a relatively large corpus in order to obtain sufficient tokens for multivariate analysis. There are few publicly available corpora of contemporary Spanish, and of those that do exist, often little is known about the speakers, rendering a sociolinguistic study difficult, if not impossible. The *Habla Culta* project (cf. Lope Blanch 1971, for example), one of the earliest large scale corpora collections, is now a full 25-50 years older than contemporary corpora, making it unsuitable to compare to more recent data collections for the purpose of studying language change in New Mexican Spanish. Written corpora and corpora of non-spontaneous speech are not suitable either.

The genres differ slightly in that the Ecuadorian data are comprised of spontaneous conversations between friends and family members, one of whom was a paid research assistant responsible for making the recording. They are conversations that would have taken place regardless of the recording in that they were gathered during times that conversations typically took place between the interlocutors, and no script or specific set of topics were followed. The NMSEB, on the other hand, consists mainly of sociolinguistic interviews (although there are a few spontaneous conversations), and the interviewers were trained to elicit narratives of personal experiences (cf. Labov 1984). Most of these interviews were arranged with relatives and family friends with the explicit purpose of making a recording, so the genre is slightly different, as evidenced in the higher number of past tense verbs in that corpus (cf. Table 2). We excluded data from researchers on the NMSEB recordings as their role was limited to interviewing and they did not all acquire English and Spanish simultaneously, but data from the Ecuadorian research

assistants was included, as they were full conversation participants and members of the speech community.

In terms of the geographic distance between the two varieties, we highlight that there is a certain advantage to this distance. First, if this is an internal change instead of a contact-induced change, it is probable that evidence of grammaticalization along previously proposed grammaticalization paths (cf. Bybee et al. 1994; Cortés-Torres 2005; Torres-Cacoullós 2000) will be seen in this distant variety. Secondly, comparison to geographically closer Spanish varieties do not necessarily lend themselves to making stronger claims. The participants from the NMSEB are speakers of Traditional New Mexican Spanish that, while having many lexical similarities to neighboring Mexican varieties, is unique in many ways due to its isolation (cf. Bills & Vigil 2008). Finally, researchers comparing contact varieties in the US have come across certain limiting conundrums. While Silva-Corvalán found differences in the innovative distribution of *estar* ‘to be’ in bilinguals from Los Angeles compared to monolinguals from Michoacán (in data from Gutiérrez 1989), she found that this difference was reduced when examining the speech of participants born in northern Mexican states. Without examining the underlying constraints on variation, there is not an accurate way of knowing if the extension of *estar* is a dialectal feature transferred from northern Mexican varieties or contact innovation. While we recognize the value in researching neighboring varieties, as they may provide a more gradient gauge of language change, we find that the Ecuadorian data is methodologically adequate for comparison.

All Present Progressive, Simple Progressive, Past Progressive and Imperfect tokens were extracted from the corpora (save for the exclusions mentioned in the previous section), yielding a dataset of 3911 verbs total, as seen in in Tables 2 and 3.

Table 2: Distribution of past tense verb forms, Chi-square= 9.981, $p < .01$.

	Past Progressive		Imperfect		Total
NMSEB	100	11%	848	89%	948
Ecuadorian	75	17%	374	83%	449

Table 3: Distribution of present tense verb forms, Chi-square 7.603, $p < .01$.

	Present Progressive		Simple Present		Total
NMSEB	42	8%	475	92%	517
Ecuadorian	251	13%	1738	87%	1989

The rate of occurrence of the Past Progressive compared to the Imperfect, and the Present Progressive compared to the Simple Present gives us the means with which to perform a preliminary test of the hypothesis that the language contact (as represented by the bilingual situation represented in the NMSEB corpus) would promote higher rates of periphrastic (e.g., progressive) forms. We do not find evidence in these rates to support this hypothesis, as Chi-square tests show the differences to be significant in both groups, but with the monolingual data showing higher rates of periphrasis, contrary to what was predicted by the contact induced change hypothesis. In addition, the rate of the Present Progressive in the NMSEB is even less than that found for Puerto Rican Spanish (cf. Cortés-Torres 2005:45), which was reported at 11% and employed similar exclusions to the present study. However, there are nearly twice the number of Past Progressives in the NMSEB than were reported for an earlier study of New Mexican Spanish, which showed only 6% of past temporal reference form were periphrastic (Torres Cacoullós 1998:164), although this previous study does not mention excluding tokens that were excluded from the present study (e.g., *era*, *estaba*, *tenía*), rendering the comparison problematic. While rates of usage provide important information, an examination of rates alone is insufficient in determining that there is convergence or change (cf. Torres Cacoullós and Travis 2015). For this reason we turn next to the linguistic conditioning of the forms.

4. Theoretical framework

We draw on the work of Carmen Silva-Corvalán (1994, 2001), and the subsequent studies inspired by her research, in testing hypotheses regarding the effects of language contact on linguistic change. Much of her work was based on conclusions drawn from her seminal work on Spanish in contact with English in Los Angeles, and she formulated several generalizations about the types of change that take place in contact situations.

In order to situate the present work, it is important to recognize differences between Silva-Corvalán's study and ours. One important difference lies in the types of bilingual participants. In Silva-Corvalán's 1994 volume, she examines differences over three generations: the first generation being people who acquired English after the age of 11, the second generation acquiring English and Spanish more or less simultaneously in early childhood and are conversant in Spanish, and the third generation, who are largely English dominant. The bilinguals in our study are most similar to the second generation of speakers in Silva-Corvalán's study, being early bilinguals, but they are also characterized as being balanced bilinguals who smoothly transition between languages in the same conversation (cf. Torres Cacoullos & Travis 2015).

The particular claims about language change to be tested are the following:

- 1) Language contact creates periphrastic constructions. This claim first appeared in Silva-Corvalán (1994:207) and has reappeared in subsequent works, including Silva-Corvalán (2001) and Gutierrez (2003).
- 2) The rate of changes in progress will be accelerated in situations of language contact, especially where one language is used less or speakers do not receive formal education in that

language (Silva-Corvalán 1994:113), as is the case for the New Mexicans who were schooled in English.

3) Bilinguals may unconsciously seek to make the grammars of the two languages more similar by finding or creating similar structures in each language and using them in the same way. This is the convergence hypothesis, which appears in a wide body of literature referencing bilingualism and language change, dating back at least 45 years (cf. Gumperz and Wilson 1971) and being echoed in many later works (cf. Thomason and Kaufman 1988, Silva-Corvalán 1994, Heine and Kuteva 2005, *inter alia*). One of the mechanisms contributing to this change is thought to be code-switching, or the alternation of the two languages in discourse.

4) When linguistic variation is at play, language contact may cause a weakening of constraints on the selection of forms, rendering them more discourse neutral. This claim is found in Silva-Corvalán's (1994) work on Spanish/English contact.

5) Women are the leaders of language change. This claim has been borne out through a number of studies spanning decades of sociolinguistic research on westernized societies (Eckert 1989, Eckert & McConnell-Ginet 2003, Labov 2001, Rissel 1989, Reig 2009, Shin 2013).

We also rely on studies of grammaticalization and language variation to interpret our findings. As an item moves from a lexical to a grammatical function, as is the case of the progressive constructions in Spanish, an examination of changing linguistic constraints enhances our understanding of grammaticalization, and as datasets are compared, one can apply the comparative variationist method (cf. Poplack, Zentz and Dion 2012) to lend insight into the linguistic correlates of language change. This approach is particularly useful where there is historical data that lays the groundwork for understanding the internal trajectory of variation, and

facilitates the understanding of patterns of constraints between varieties. Fortunately, Torres Cacoullos (1998, 2000, 2012) has provided this diachronic groundwork for Spanish.

5. Overview of factors conditioning of the synthetic versus periphrastic forms

The variationist paradigm has shown that when there are two forms in variation, the choice to use one form over another is conditioned by both internal linguistic factors, such as lexical aspect, semantic class of verb, sentence aspect, and external factors, such as the sex and age of the speaker, or bilingual versus monolingual status. Drawing on previous studies of the variation between the Imperfect and Past Progressive, and the Simple Present and Present Progressive, we identified seven factor groups to code. Each factor group, with the underlying hypothesis, is explained below. Two external factors were included, the remaining factors are internal. Bilingual or monolingual status was operationalized in the comparison of the two datasets, not in the individual coding of each token. Sex is the other external factor. Age was not considered because the ranges were different, especially in the absence of young (<45) speakers in the bilingual corpus.

5.1 Sex

Tokens were all coded for the sex (male or female) of the speaker. Women are often cited as the leaders of linguistic change (Eckert 1989, Eckert & McConnell-Ginet 2003, Labov 2001, Rissel 1989, Reig 2009, Shin 2013). If there is a change in progress with regards to the use of

synthetic and periphrastic forms, we hypothesize, women may lead this change by favoring the periphrastic forms over synthetic forms when compared to men. This would be particularly evident in the bilingual corpus, but may be absent in the monolingual corpus.

Of the 16 speakers in the Ecuadorian corpus, nine are female and seven are male. The ratio of females to males is similar in the NMSEB, with seven females to four males.

5.2 Lexical aspect

Each token was coded for the lexical aspect of the verb, following Vendler's (1957) categories. States are those verbs which are atelic and durative (e.g. *gustar* 'to be pleasing', *quedar* 'to remain, to stay', *valer* 'to be worth', and *vivir* 'to live'). Many frequently occurring stative verbs (*estar* 'to be', *parecer* 'to seem', *ser* 'to be', and *tener* 'to have') were excluded as they did not exhibit variation, occurring only in the synthetic forms. Activities are those verbs that encompass atelic situations that are dynamic (e.g. *andar* 'to go around', *correr* 'to run', *hablar* 'to talk', *leer* 'to read', and *trabajar* 'to work'). Accomplishments are dynamic, telic and have duration (e.g. *cambiar* 'to change', *decir* 'to say', *entrar* 'to enter', *hallar* 'to find' and *regresar* 'to return'). The last category, achievements, are dynamic, telic and have no duration (e.g. *caer* 'to fall', *ganar* 'to win', *oír* 'to hear', *permitir* 'to permit' and *ver* 'to see').

The correlation between lexical aspect and choice of Present Progressive or Simple Present is one of the most frequently included variables in variationist studies of the Present Progressive. Cortés-Torres (2005) found activity verbs to favor the Present Progressive in Puerto Rican speakers, with all other types favoring the Simple Present. Fafulas (2012:79), on the other hand, found achievements, accomplishments and activities to favor the Present Progressive, and

only states to disfavor it. Participants in his study also judged the Present Progressive and the Simple Present to be acceptable with achievements and accomplishments, while activities and stative verbs disfavored the selection of both forms as acceptable. In a study of Peninsular Spanish, Berry (Forthcoming) found that stative verbs strongly disfavor the Present Progressive while dynamic verbs slightly favor it. Torres Cacoullos (1998:166) found the stative/dynamic distinction to be an important predictor in choice of Past Progressive in an older sample of New Mexican Spanish (NMCROSS, cf. Bills & Vigil 2008), with stative verbs favoring the Imperfect and all the dynamic verbs favoring the Past Progressive. In a diachronic study of the changing constraints upon the Present Progressive and the Simple Present, Torres Cacoullos (2012:93) found the dynamic/stative distinction to be irrelevant in Old Spanish, but it emerges in 17th Century Spanish and persists into 19th Century texts as a significant predictor.

The direction of change as it relates to the contact situation is difficult to predict, as there are two somewhat contradictory hypotheses that one could formulate. On the one hand, we may expect to observe a weakening of the current constraints in the bilingual data along with a concomitant expansion of the usage of the Present and Past Progressive forms to contexts not usually observed in the monolingual data (e.g. using stative gerund Progressive constructions). On the other hand, the language contact situation could produce an acceleration of the changes already in progress (Gutiérrez 2003; Silva-Corvalán 1986 & 1994), resulting in simplification of the competing forms with a preference for the periphrastic Progressive constructions. At the same time, adherents to this second hypothesis have failed to acknowledge that this acceleration may result in an outcome in which the Simple Present and the Imperfect are grammaticalizing as habitual markers, and we could expect to see less Present and Past Progressive in habitual contexts in the bilingual data than in the monolingual data. Current theories of the role of

language contact in language change do not allow us to reliably predict the direction of change, rather they allow us to interpret observed change with respect to other contact situations. Future studies should focus on comparisons of monolingual Spanish and English, in order to determine if there are conflict sites, which would be required to test the contact-induced change/convergence with English hypothesis. However this study provides a first step by comparing the constraints that favor the choice of the progressive in both a monolingual and a bilingual variety.

5.3 Temporal adverbs

The data were also coded for presence or absence of temporal adverb. Torres Cacoullós (2012:93) found the presence of a temporal adverb to favor the Present Progressive in Old Spanish, but that constraint disappeared by the seventeenth century. However, close examination of the data reveals that “the higher rate of the Progressive in the presence of a temporal expression holds for extended duration contexts, for example in habitual situations with *siempre* ‘always’” (2012:94). In this way, the retention of the older, habitual use of the Present Progressive is retained only when it is clearly marked by a co-occurring temporal adverbial that also indicates habitual aspect. Fafulas (2012:73) found that frequentative and immediate adverbs favored the selection of both Simple Present and Present Progressive as acceptable in an acceptability task, whereas no adverb disfavored these forms. He also found that immediate adverbs significantly favored the selection of only the Present Progressive as acceptable, whereas both immediate and absence of temporal adverb contexts disfavored the selection of the Present Progressive as acceptable (2012:79). The range temporal adverb types is certainly much wider

and covers grayer area in natural data as compared with a controlled study, so the distinction between immediate, frequentative and no adverbs was not made for this study. The hypothesis regarding language contact and presence or absence of a temporal adverb is the following: given the language internal changes already in progress in which the Present Progressive is not constrained by the presence of a temporal adverb, we do not expect to find this to be a significant factor in either group of data, although the layering effect (in the sense that the older, habitual forms are marked by a co-occurring adverbial) may be more evident in the monolingual data whereas the in the bilingual data those constraints may have been lost.

5.4 Locative adverbs

Temporal adverbials are not the only kinds of adverbials that can be significant predictors of the periphrastic form. The Spanish Present Progressive, like the Progressives of many languages of the world (cf. Bybee et al. 1994:128) originated in a locative construction (see also Torres Cacoullos 2000 and 2012). Presence or absence of a locative adverbial was coded, and it was hypothesized that, following the internal grammaticalization tendencies observed over time, the co-occurrence of a locative expression would be more likely to occur in the monolingual data than in the bilingual data, as the constraint has weakened over time (Torres Cacoullos 2012:93) and has disappeared in 20th Century Peninsular Spanish (Berry Forthcoming).

5.5 Sentence aspect

The next factor hypothesized to be important in the distribution of forms is the sentence aspect. We distinguished three categories: Continuous, Habitual, and Progressive, which, following Bybee et al. (1994:126) depicts ‘an action as ongoing at reference time’. A fourth code was used for verbs with indeterminate aspect, which represented a notable proportion of the data: 74/449 [16%] monolingual past temporal reference; 123/951 [13%] bilingual past temporal reference; 461/1989 [23%] monolingual present temporal reference; • and 121/525 [23%] bilingual present temporal reference. Logically, these ambiguous indeterminate tokens were excluded from the multivariate analysis. For the tokens with present temporal reference, then, the Progressive code was assigned when the situation was clearly ongoing at the time of speech. For the tokens with past temporal reference, they were coded as progressive when they depicted an event as ongoing with respect to another event in the past, as in the example (19). Continuous aspect was determined to be that which is ‘more general than the progressive’ (Bybee et al. 1994:127) as it does not necessarily have to be taking place at the moment of speech, as is the case with someone who is studying a particular career, as in (20), but is generally viewed as ongoing and not habitual. The category habitual was reserved for those events that are viewed as occurring routinely, or are ‘customarily repeated on different occasions’ (Bybee et al. 1994:127), such as the token in (21). For the multivariate analysis, the data were collapsed into non-habitual (Progressive and Continuous) and habitual (Habitual).

(19) Past temporal reference with progressive aspect

yo te juro que a ratos mientras hablaba de todo eso,
yo decía,
Dios por qué me pones esta prueba?
‘I swear that at times while she was talking about all that,
I was saying,
God why are you putting me through this test?’

(Lucy, Banco:2171-2172,M)

(20) Present temporal reference with continuative aspect

.. (TSK) .. una de mis hijas vive al otro lado de la calle.

‘...(TSK) .. one of my daughters lives on the other side of the street.’

(Rocío, Las Tortillas:48:44,B)

(21) Past temporal reference with habitual aspect

lo que hacía yo=,

antes de mi doctor’s appointment.

venía,

y buscaba la address.

‘what I used to do,

before my doctor’s appointment.

I would come,

and I would look for the address.’

(Ivette, El Túnico:53:44,B)

Once again there are two competing hypotheses regarding the possibility of contact-induced change and the aspect of the clause. On the one hand, the language internal tendency has been for the progressive to increasingly disfavor habitual (or extended duration) contexts (Berry Forthcoming:36, Torres Cacoullós 2012:93). If this change is accelerated in the bilingual data, we should expect to find very few instances of the progressive forms used when the sentence level aspect is habitual. On the other hand, similar to what we hypothesized regarding lexical aspect, it could be that this constraint is being lost in the contact situation, resulting in an increase in the progressive forms in habitual contexts. While it is not possible to accurately predict the direction of the change, our comparison with monolingual data provides evidence as to whether or not a change is in fact occurring in the bilingual data.

5.6 Clause type

Clause type is another indicator of the grammaticalization of the progressive. Since Old Spanish, the Present Progressive has become increasingly disfavored in negative and interrogative contexts (Berry Forthcoming, Torres Cacoullos 2012:93). For this reason three types of clauses were coded: affirmative declarative, negative polarity, and interrogative.

5.7 Code-switching

The last factor groups –presence or absence of code-switch in the preceding 3 Intonation Units produced by the speaker—was coded only for the bilingual data, as there is no code-switching in the monolingual data. This is an important factor group as it stands to give us the most insight into the potential mechanisms of contact-induced change if in fact there is change taking place in the New Mexican data. It was hypothesized that if the bilinguals are using more periphrastic forms, it is because (a) they are more analogous to English forms, or (b) periphrastic forms are preferred in situations of language contact, as alleged by Silva-Corvalán (1994:6) as a way to ‘achieve paradigmatic regularity or to replace less semantically transparent bound morphemes’. The potential for contact induced change in the choice of progressive has been oft-cited, with differing claims. Klein (1980) and Lavandera (1981) both support the contact-induced change hypothesis, with a purported increase in the frequency of the progressive forms as compared to the simple (synthetic) forms, while Fafulas (2012) and Cortés-Torres (2005) do not find evidence for contact-induced change when comparing monolingual to bilingual speakers.

6. Multivariate analyses

Rbrul (Johnson 2009) was used to carry out the multivariate analysis on these data in order to determine which of the factor groups were selected as significant to the choice of form, to measure the magnitude of effect of each factor group (as measured by the range), as well as to calculate the probabilistic influence of the individual factors on the usage, or non-usage, of the variable form (as measured by the factor weights/log odds). Let us turn to the monolingual data first, as it gives us the baseline with which to compare the bilingual data.

Table 4: Factors contributing to the selection of the Past Progressive in Ecuadorian Spanish

	Factor Weight	Log Odds	N	%
Lexical Aspect				
Accomplishment	0.824	1.545	103	31
Activity	0.803	1.404	135	23
Stative	0.275	-0.970	48	6
Achievement	0.121	-1.978	89	1
<i>Range</i>	<i>70</i>			
Sentence Aspect				
Non-habitual	0.726	0.973	284	22
Habitual	0.274	-0.973	91	4
<i>Range</i>	<i>45</i>			
Locative Adverb				
Present	0.718	0.935	19	47
Absent	0.282	- 0.935	356	16
<i>Range</i>	<i>34</i>			
Clause Type				
Affirmative	[0.609]	0.444	340	19
Interrogative	[0.586]	0.349	13	23
Negative	[0.312]	-0.792	22	5

Temporal Adverb				
Present	[0.563]	0.255	75	20
Absent	[0.437]	- 0.255	300	17
Sex				
Male	[0.528]	0.111	153	20
Female	[0.472]	-0.111	222	17

Table 4 reveals that three factor groups are significant in the selection of the Past Progressive in Ecuadorian Spanish: lexical aspect of the verb, sentence aspect, and presence of a locative adverb. Not selected as significant were presence of a temporal adverb or clause type. Of the three significant factor groups, lexical aspect has the greatest effect, as measured by the greater range, or difference in factor weights (range = 70). Two types of dynamic verbs – accomplishment and activity – were found to favor the selection of the present progressive (0.824 and 0.803 respectively), whereas stative and achievement verbs disfavored it (0.275 and 0.121 respectively). The lack of duration in achievement verbs is likely what contributes to the strong disfavoring of the progressive construction. The factor group with the second largest magnitude of effect is sentence aspect (range = 45), with non-habitual aspect favoring the Past Progressive (0.726), and habitual contexts disfavors it (0.274). In the third factor group, the locative origins of the construction are still evident in the favoring of the progressive with a locative adverbial (0.718). The last three factor groups, clause type, presence or absence of a temporal adverb, and speaker sex were not found to be significant. A comparison with the bilingual data, presented in Table 5, reveals notable differences in the conditioning between the datasets, in addition to important similarities.

Table 5: Factors contributing to the selection of the Past Progressive in New Mexican Spanish

	Factor Weight	Log Odds	N	%
Lexical Aspect				
Accomplishment	0.753	1.114	146	13
Activity	0.64	0.574	442	10
Achievement	0.576	0.574	145	8
Stative	0.12	-1.994	89	2
<i>Range</i>	<i>63</i>			
Sentence Aspect				
Non-habitual	0.764	1.173	313	19
Habitual	0.236	-1.173	509	3
<i>Range</i>	<i>53</i>			
Locative Adverb				
Present	[0.61]	0.447	42	17
Absent	[0.39]	-0.447	780	9
Clause Type				
Affirmative	[0.632]	0.542	754	9
Interrogative	[0.44]	-0.243	6	17
Negative	[0.426]	-0.299	62	8
English in 3 previous IUs				
Present	[0.548]	0.191	443	10
Absent	[0.452]	-0.191	379	8
Temporal Adverb				
Present	[0.544]	0.176	94	20
Absent	[0.456]	-0.176	728	9
Sex				
Female	[0.537]	0.15	642	10
Male	[0.463]	-0.15	180	7

In the bilingual data, lexical aspect, as in the Ecuadorian data, has the greatest magnitude of effect (range = 63), with all dynamic verbs favoring the past progressive and the statives disfavoring it, consistent with what was reported earlier by Torres Cacoullós (1998:166) for New Mexican Spanish. The sentence aspect category shows the same patterning as the Ecuadorian data, with non-habitual sentence aspect favoring the past progressive (0.764) and habitual aspect disfavoring it (0.236). Unlike the monolingual data, however, is the lack of significance for the factor group coding the presence of a locative adverb. What this may suggest, for the bilingual data, is an acceleration of the grammaticalization of the Past Progressive as a Progressive, to the extent that it excludes other uses that may have been present in an earlier, locative construction, and also shows the dynamic/stative split found in Peninsular Spanish. We do not claim that this is an acceleration, however, as it shares features with monolingual varieties (Peninsular Spanish). It is also worth mentioning the factor groups that were not selected as significant in either analysis, namely presence or absence of a temporal adverb, clause type. The lack of significance of code-switching in the NMSEB suggests that if change is taking place in the bilingual data, it appears to be more an acceleration of changes already taking place, and not a radical change to mirror the English periphrastic past tense constructions. The factor group sex of speaker not being selected as significant is akin to what was observed in the Ecuadorian data, but here the lack of significance is even more important, as if a change were in progress, as hypothesized by the analysis hypothesis, we would expect to see women at the forefront of the change, with significantly higher rates of Past Progressive.

Let us now turn to the present temporal reference data, with the results for the monolingual data given in Table 6 and the bilingual data in Table 7. As Table 6 shows, four of the six factor groups coded for the monolingual data were selected as significant, the exceptions

being the presence of a locative adverb and speaker sex. Lexical aspect again proves to be the most important factor group, with two of the dynamic verb types favoring the Present Progressive, and accomplishments and stative verbs disfavoring it. Clause type and presence of a temporal adverb were selected as significant, despite not being significant in the selection of the Past Progressive. Here we find a similarity with Peninsular data, in which positive polarity has been correlated with the selection of the Present Progressive both historically (Torres Cacoullos 2012:93) and in 20th Century data (Berry Forthcoming). The presence of a temporal adverbial has also been of intermittent importance in Peninsular Spanish; Torres Cacoullos 2012:93 finds an effect in Old Spanish and Berry Forthcoming finds an effect in 20th Century data. Sentence aspect is still significant, although the magnitude of effect is less than with the Past Progressive.

Table 6: Factors contributing to the selection of the Present Progressive in Ecuadorian Spanish

	Factor Weight	Log Odds	N	%
Lexical Aspect				
Activity	0.673	0.722	494	18
Achievement	0.548	0.191	408	11
Accomplishment	0.43	-0.283	350	8
Stative	0.348	-0.629	271	6
<i>Range</i>	33			
Clause type				
Affirmative	0.647	0.606	1217	13
Interrogative	0.496	-0.014	145	8
Negative	0.356	-0.592	161	4
<i>Range</i>	29			
Temporal Adverb				

Present	0.574	0.299	236	17
Absent	0.426	-0.299	1287	11
<i>Range</i>	<i>15</i>			
Sentence Aspect				
Non-habitual	0.569	0.278	1142	12
Habitual	0.431	-0.278	381	9
<i>Range</i>	<i>14</i>			
Locative adverb				
Absent	[0.538]	0.151	1442	12
Present		-0.151	81	9
	[0.462]			
Sex				
Male	[0.522]	0.087	631	13
Female	[0.478]	-0.087	892	11

Table 7 shows that there are many fewer constraints in the bilingual data, where only two factor groups – sentence and lexical aspect – were found to be significant. The patterning of the significant factors is, in fact, nearly identical to the patterning of the factors in the monolingual data, suggesting that while they do not share all the same constraints, where there is overlap they follow the same patterns, and there has not been any radical change to either system. They do appear to follow the same grammaticalization trajectory, language contact aside. At the same time, it is noteworthy to point out that the range for lexical aspect in the bilingual data (52) is much greater than for the Ecuadorian data (33) revealing a greater magnitude of effect for this factor group in New Mexican data. The same holds true for sentence aspect (range = 40 NMSEB vs 14 Ecuadorian).

Table 7: Factors contributing to the selection of the Present Progressive in New Mexican Spanish

	Factor Weight	Log Odds	N	%
Lexical Aspect^{iv}				
Activity	0.792	1.338	146	19
Achievement	0.409	-0.367	60	7
Stative	0.275	-0.971	120	3
<i>Range</i>		52		
Sentence Aspect				
Non-habitual	0.7	0.847	231	13
Habitual	0.3	- 0.847	95	5
<i>Range</i>		40		
Locative Adverb				
Present	[0.612]	0.454	316	11
Absent	[0.388]	-0.454	10	10
Clause Type				
Interrogative	[0.607]	0.436	35	20
Affirmative	[0.559]	0.238	236	11
Negative	[0.338]	-0.674	55	4
Sex				
Female	[0.544]	0.176	312	10
Male	[0.456]	-0.176	83	8
Code-switch in 3 previous IUs				
Present	[0.524]	0.096	128	12
Absent	[0.476]	- 0.096	198	11
Temporal Adverb				

Absent	[0.522]	0.09	210	11
Present	[0.478]	- 0.09	116	10

When comparing the past temporal reference variation to the present temporal reference variation, it is clear that the bilingual speakers experience fewer constraints on the conditioning of the forms. It is only two factor groups that are significant in the bilingual data, sentence and lexical aspect, showing a high degree of grammaticalization as a progressive construction that is most often selected to describe dynamic situations. The monolingual data show other constraints at work, suggesting that these speakers retain older vestigial uses of the periphrastic constructions, such as the co-occurrence with a locative adverb. This suggests that the internal trajectory of the progressive constructions to mark aspectual distinctions has perhaps been accelerated in the bilingual community. There is no evidence to suggest that code-switching itself is a driving force in the change. However, this does not exclude the possibility that other, more specific, bilingual phenomena might affect the usage of periphrastic constructions. At the very least, we do not see compelling preliminary evidence that the progressive is changing to more closely resemble the English progressive.

7. Summary and conclusions

The comparative variationist analysis presented in the previous section, in which two contemporary varieties of Spanish, one monolingual and the other bilingual, were compared to each other, and compared to the internal grammaticalization trends already in progress in

Spanish, is useful understanding if and how language contact is contributing to change in the use of periphrastic versus synthetic forms. Several related hypotheses regarding the types of changes that can occur due to linguistic contact were tested.

The quantitative analyses and comparison of monolingual and bilingual speech presented in this paper do not show evidence that New Mexican Spanish is changing to become structurally more similar to English, or in other words, it does not appear linguistic convergence is taking place with respect to the Progressive constructions. The rates of the analytic forms are not increased in the bilingual data, which is what the convergence hypothesis would predict. In addition, even when the forms in variation in the bilingual variety were examined in close proximity to English (code-switches), the alternation between languages was not found to play a significant role in the conditioning of variation.

If change is indeed taking place, as evidenced through the finding that the weakening of constraints appears to be in line with ongoing grammaticalization, it appears to be more along the lines of an acceleration of the changes already inherent to Spanish and a weakening of the constraints present in monolingual varieties. This was found in the fewer constraints operating on the New Mexican data as compared to the Ecuadorian data. However, women were not shown to be significantly more likely to use the periphrastic forms than men, which may signal that there is not a change in progress.

What this analysis tells us, then, about language change in a contact situation, is that all the possible types of changes may not necessarily occur together, rather one or two types of changes may be more likely to occur than others. The findings of this paper suggest that weakening of constraints and acceleration of change in progress may be the first types of change to occur. Interesting, there is little support for the hypothesis that speakers seek to lighten the

cognitive load of grappling with two linguistic systems by making the languages more structurally or pragmatically similar, as this was not the case for the periphrastic construction. The role of women in change in contact situations is one that should be examined in future studies, as the results here do not show that women are leaders in this linguistic change.

In addition to examining the role of women in contact-induced change, future studies should also compare the results of these analyses to other varieties of Spanish, both in contact with other languages and not in contact with other languages. This would serve to create a better basis for understanding the internal monolingual trends and allow us to tease out changes that appear to relate to language contact. As it stands, this paper allows us to begin to understand the current linguistic constraints operating on two varieties of Spanish and test a number of hypotheses regarding language change.

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ⁱ The information contained within parentheses after each example contains the pseudonym assigned to the speaker(s), the name of the transcript and the line number(s) for the monolingual corpus and the timestamp for the bilingual corpus. The letter M after the line number indicates that it was extracted from the monolingual corpus and the B means it was found in the bilingual corpus.

ⁱⁱ This figure excludes the speech of the interviewers, who were not included in the study. The following transcripts were used: El Abuelo, La Marina, Dos Comadres, Piedras & Gallinas, Las Tortillas, El Túnico, Basketball Teams, Graduación Familiar parts 1 & 2, La Salvia, El Timbre Portátil.

ⁱⁱⁱ Notably the synthetic future for a command and the benefactive *dar* + gerund construction (cf. Haboud 1998), and the use of the Present Perfect to express evidentiality (Dumont 2013).

^{iv} Accomplishments were excluded as they presented no variation, all were Simple Present.