

# "Por ahí agarrábanos los autobuses": A Sociolinguistic Analysis of the Alternation between *-mos/-nos* in Spanish

Erin Arthur and Manuel Díaz-Campos  
Indiana University

## 1. Introduction

Few studies have examined the alternation between *-mos/-nos* in Spanish. The variable use of *-mos/-nos* in expressions such as *por ahí agarrábamos los autobuses* vs. *por ahí agarrábanos los autobuses* 'We took the bus there' has been observed in New Mexican Spanish and different areas of the Spanish speaking world including México, The Dominican Republic, Guatemala, Perú, and Spain (Espinoza 1946). Espinoza (1909) explains that some scholars have proposed that the use of the verb-final linguistic form *-nos* instead of *-mos* comes from an analogical change from verbal forms such as *vámonos* 'let's go'. However, Espinoza argues that this may not be the case and that the analogy may be related to the pronoun *nos* in its several uses. In a more recent investigation, Janda (1995) argues that the exchange between *-mos/-nos* 'us' may be an innovation based on the first person plural pronoun *nosotros* 'we'. This previous research does not provide any empirical evidence to support any of the possible analyses proposed. The present investigation examines, by means of a variationist analysis in oral data, the feasibility of these arguments. Furthermore, an analysis of lexical frequency, as well as sociolinguistic factors, is presented to offer a preliminary account of the alternation between *-mos/-nos* 'us'.

## 2. Previous Studies

This section presents a review of previous literature to provide the reader with the necessary context to understand the goal of this paper. The section begins with a discussion of descriptive dialectological research in New Mexican Spanish and comprises more recent studies concerning the alternation of *-mos/-nos*.

Espinoza (1909) is one the first studies documenting variation between *-mos/-nos* in the first person plural forms of the imperfect indicative (e.g. *hablábamos* vs. *hablábanos* 'we spoke') and conditional indicative (e.g. *estaríamos* vs. *estaríanos* 'we would have been there'). His findings have also been found to affect forms in the past subjunctive (e.g. *compráramos* vs. *compráranos* 'we would have bought'). Espinoza (1909) explains that some scholars have proposed that this could be the result of an analogy with verbal forms such as *vámonos* 'let's go'. He questioned this possibility for he found this explanation not entirely satisfactory. His research also discusses that the change seems to take place when the lexical accent falls on the antepenultimate syllable. This stress pattern inhibits analogy in the present indicative, future indicative, and preterit indicative. Therefore, an alternation between *vemos* vs. *venos* 'we see' and *estaremos* vs. *estarenos* 'we will be there' is not found. The main argument presented by Espinoza is that the analogy originating the alternation between *-mos/-nos* comes from the pronoun *nos* in its several uses. However, he does not provide further empirical or theoretical basis for this explanation.

Espinoza (1946) discusses the alternation between *-mos/-nos* in New Mexican Spanish and different areas of the Spanish speaking world including México, The Dominican Republic, Guatemala, Perú, and Spain. Espinoza argues that there may be similarities in analogical changes found in dialects of Portuguese, Gascon, and Italian. This fact may lead to the belief that alternation between *-mos/-nos* in New Mexican Spanish dates back in time because it is a phenomenon attested in the history of other Romance Languages. However, Espinoza also explains that he did not find sources attesting to the alternation of *-mos/-nos* in historical Spanish. Furthermore, he presents the perspective that this alternation seems to be a new development in varieties of Spanish spoken in America. However, historical varieties of Spanish, such as Judeo-Spanish, show a somehow similar process in which *n* becomes *m* in pronominal forms (see Penny 1992, 2000 for further details).

In his research regarding the exchange from *-mos* to *-nos*, Janda (1995) explains that the root of this variation might be in the relationship that exists with the pre-stem or post-stem object-marking clitics as well as the free subject or object pronoun *nos-otros*. In other words, the claim made by Janda is that the new subject-marking *-nos* is the product of a process of reanalysis that is based on the pronominal object-marking clitic *nos* (e.g. *canta-nos* 'sing to us') as well as the subject or object marking pronominal bound root, as in *nos-otros*. Janda (1995) presents evidence of cross linguistic cases in Modern Greek, Modern Irish, and Polish where similar processes of reanalysis are attested. In the present analysis it seems relevant that all these uses of *nos* and *nosotros* in different contexts are close together, producing the innovative use of *-nos* for *-mos* in several varieties of Spanish.

Pountain (2001), in his description of diachronic texts in Spanish, examines the alternation of *-nos* instead of *-mos* in exceptional cases such as *limpienos* instead of *limpiemos*. This pattern of variation is also explained as an instance of analogy with the personal pronoun referring to the first person plural. This kind of variation is somehow different from the most common cases described above because of the low occurrence of cases involving first person plural form of the present subjunctive. The most productive cases of variation are the imperfect indicative (*cantábanos* instead of *cantábamos* 'we sang'), conditional indicative (e.g. *cantaríanos* instead of *cantaríamos* 'we would sing'), and past subjunctive (e.g. *cantáranos* instead of *cantáramos* 'we might sing').

Research conducted by Bullock and Toribio (2006) further supports Espinoza (1909) and Janda's (1995) analyses. Bullock and Toribio's (2006: 13) research points out that "...the shift in the first person plural ending *-mos*, which often becomes *-nos*", can be considered the result of analogy with the subject and object pronouns *nosotros* and *nos*.

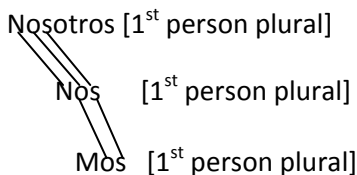
Holmquist (2008) analyzed the alternation between *-mos* and *-nos* in the rural speech of Castañer, a small west-central community in Puerto Rico. Holmquist considers the *-mos/-nos* alternation to be a change from above (i.e., a change in which there is conscious awareness). He defines the alternation between *-mos* and *-nos* as: "the use of *-mos* instead of *-nos* in verb forms with stress on the antepenultimate syllable (e.g. *trabajábamos* vs. *trabajábanos* 'we worked', *estuviéramos* vs. *estuviéranos* 'we were', and *tendríamos* vs. *tendríanos* 'we would have') (28)". He proposes that the standard form (*-mos*) may be a focus of education in schools and that is why the alternation between *-mos/-nos* appears less frequently among the younger generations. This is somehow similar to what López-Morales (1989) reported for San Juan de Puerto Rico, where he found that *-nos* is more prevalent among lower socioeconomic groups.

In summary, previous research on the alternation between *-mos/-nos* indicates that the use of *-nos* in forms such as *estábanos* 'we were' may be the result of the effect of pronominal forms such as *nos* 'us' and *nosotros* 'we'. Nevertheless, no empirical evidence supporting a relationship between *nos* and *nosotros* as well as *nos* as a bound morpheme has been presented. This paper further explores the phenomenon and provides empirical evidence of the influence of pronominal forms in the variation between *-mos/-nos*. Based on a usage-based model (Bybee 2001, 2010), according to which grammatical structure is seen as emergent from usage and the relationships that constructions have in both form and content, it is predicted that a connection between *nosotros* and *-mos/-nos*, both in form and content, exist as reflected in samples of oral speech. These forms are connected in an exemplar network linked as referential entities of first person plural (see Figure 1 below). Both the semantic and form connection within the exemplar may trigger the analogy as opposed to a limited analogy with a specific structure (i.e. *vámonos* 'let's go') as proposed in previous accounts. Furthermore, this analogy is predicted to affect, first, less frequent verbs due to their weak cognitive representation (Bybee 2001, 2010). These ideas are further developed in a brief presentation of the main tenants behind the usage-based model.

### 3. A usage-based Perspective on Language

One of the main assumptions of the analysis presented in this paper is that the relationship between *-mos* and *-nos* goes beyond the obvious reason that both forms share similarities in form and content. Following the usage-based model (Bybee 2001, 2010), it is proposed that usage has an effect on the cognitive representation of language in that form and meaning connections emerge as result of patterns of frequency found in speech. In the particular case that is being investigated, *-nos* seems to be a “novel” form in the particular construction where it is used (e.g. *cantábanos* instead of *cantábamos* ‘we sang’), which was created based on other forms that refer to first person plural such as *nosotros* and *nos*. Bybee (2010: 58) explains that traditional accounts of change by analogy are thought to be “proportional” (e.g. *talk: talked :: leap: leaped*) where *leaped* is a “novel” structure based on the regular form used for past tense as in the example illustrated by *talked*. In the case of *-mos/-nos*, earlier accounts try to posit an analogy between *vámonos* ‘let’s go’ and *cantábanos* ‘we sang’ in which one can see that proportional analogy is not necessarily transparent (e.g. *vamos: vámonos :: cantamos: cantábanos*) and the best way to explain variation between *-mos/-nos*. It is obvious that the specifics of the two forms do not coincide as *vámonos* is in imperative, while *cantábanos* is in the imperfect, so that the exact parallelism presented in the example taken from Bybee (2010: 58) does not necessarily apply. We adopt in the present paper a definition of analogy along the lines of what has been proposed by Bybee (2010: 57). According to this viewpoint, the variation found in the alternation between *-nos* and *-mos* can be considered to be a process of analogy where the novel form is based on stored exemplars. Bybee (2010: 57) uses the term analogy not in the general sense used in historical linguistics, but to refer to the use of a novel structure based on an existing cognitive pattern which emerges because of form and content similarities. In our analysis, the uses of *-nos* and *-mos*, independently of the specific constructions in which normatively they are supposed to occur, could be considered cognitively related given that both forms refer to first person singular and that *-mos* and *-nos* only differ in the point of articulation of the initial consonant. Figure 1 shows the relationship of *-nos* with other forms presented as an exemplar of first person plural.

Figure (1): Phonological and semantic connections yield first person plural in *nosotros*, *-nos*, and *-mos*



*Nosotros*, *-nos* and *-mos* are related in form and meaning as established in figure (1). However, while *nosotros* and *nos* can appear as independent words in different grammatical roles (e.g. *nosotros* can be the subject in *nosotros cantábamos* ‘we sang’), *-mos* can only be bound to the verb. It is proposed that analogy is not tied to the specifics of one particular pattern but to the general notion of first person plural. Frequency of use indicates that *-nos* is the form most frequently used to convey first person plural and that is why it becomes the best candidate to be in variation with *-mos*, which by contrast is less frequent and has a more peripheral location in the exemplar representation.

Bybee (2001, 2010) also describes that the effect of frequency in analogical change at the morpho-syntactic level indicates that high frequency items become more resistant to change than less frequent items. Bybee (2001: 12) argues that examples such as *keep/kept*, *sleep/slept* resist change due to their high frequency, while pairs such as *weep/wept*, which are of low frequency, become subject to regularization, so that the form used instead of *wept* is *weaped*. In the case of *-mos/-nos*, it is possible to predict that alternation towards *-nos* would affect first low frequency items in the same fashion as the English example described by Bybee (2001). In order to test this prediction lexical frequency was included in this analysis (see the methodology section for details about frequency counts).

## 4. Methodology

For this analysis conversations from previous interviews collected in Mérida, Venezuela were examined (Domínguez and Mora 1998). The corpus consists of 80 interviews, totaling over 40 hours of recorded conversation, with natives or residents of Mérida who had spent the majority of their lives there. The corpus comprises a sample of speakers that consisted of 40 males and 40 females that were further divided into four age groups: 14-29, 30-45, 46-60, 61 and older, and five socioeconomic class groups: upper class, upper-middle class, middle class, lower-middle class, and lower class. Social class was determined following a similar approach to the one described by Bentivoglio and Sedano (1993) in which data about job description of the speaker, job description of the speaker's father, job description of the speaker's mother, level of education of the speaker, housing conditions, total family income, and average family income was collected and used to determine each speaker's social class. The analysis of the data included the following linguistic and extralinguistic factors: 1) the mood in which the verb was conjugated, 2) whether the pronouns *nosotros* and/or *nos* appeared prior to the verb conjugation, 3) the lexical frequency of the target verbal form, as well as the extralinguistic factors 4) gender, 5) age, and 6) socioeconomic status.

Regarding frequency measurements the researchers followed the guidelines presented by Díaz-Campos (2004: 227). Two levels of frequency were taken into account: 1) high frequency: 100 or greater number of tokens; 2) low frequency: 99 or fewer number of tokens. The source used to measure frequency was the *Corpus de Referencia del Español Actual (CREA)*, which comprises oral and written data from Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, USA, Spain, The Philippines, Guatemala, México, Honduras, Nicaragua, Panamá, Paraguay, Perú, Puerto Rico, The Dominican Republic, and Venezuela. This variety of data was used to get a general sense of verb frequency in the Spanish language instead of limiting the analysis to a small corpus in which most likely there is a reduced amount of lexical tokens due to discourse genre, topic, and other factors. The *Corpus de Referencia del Español Actual (CREA)* represents varieties of Spanish spoken throughout the world. Since the corpus is very diverse the researchers did not find that dialectal differences were a major concern for the analysis. In Table 1 it can be seen that all the verbs included are to some extent common, but not necessarily frequent. The procedure to obtain the general count of cases found in the corpus was done by selecting the following options: the target word (e.g. *estábamos* 'we were') was written in the blank space for *consulta*; "all" was selected for *medio* and *geográfico* for each one of the forms. Seventeen verbs in the category of high frequency and 72 verbs in the low frequency category were found. Table 1 shows a sample of the 10 most frequent verbs and the 10 least frequent verbs.

VERB	FREQUENCY
<i>Estábamos</i> 'we were'	4,628
<i>Llevábamos</i> 'we brought'	408
<i>Pensábamos</i> 'we thought'	397
<i>Pasábamos</i> 'we passed by'	351
<i>Jugábamos</i> 'we played'	306
<i>Necesitábamos</i> 'we needed'	237
<i>Llegábamos</i> 'we arrived'	219
<i>Quedábamos</i> 'we stayed'	189
<i>Contábamos</i> 'we counted/told'	162
<i>Tomábamos</i> 'we took'	160
<i>Mojábamos</i> 'we got wet'	3
<i>Rascábamos</i> 'we scratched'	2
<i>Caracterizábamos</i> 'we characterized'	2
<i>Planificábamos</i> 'we planned'	2
<i>Ordenábamos</i> 'we arranged'	2
<i>Pensáramos</i> 'we thought'	1
<i>Dramatizábamos</i> 'we dramatized'	1
<i>Tocábamos</i> 'we played'	1
<i>Jalábamos</i> 'we pulled'	1
<i>Aguantáramos</i> 'we held'	1

Table 1: The 10 most frequent verbs and 10 least frequent verbs

The presentation of the results has two parts: the first part is dedicated to present the descriptive statistics (which are meant to offer information about the distribution of the data) to provide with a general picture of the frequencies found as well as the individual relationship of each independent variable included with the dependent variable. The second part is a logistic regression analysis conducted using Goldvarb (Taglimonte 2006). Several preliminary analyses of the data and social class showed that only lower- middle and lower socioeconomic groups used the variant *-nos*, creating knockout factors that impeded to perform a multivariate analysis. Therefore, social class was eliminated from further analysis since it was determine that only lower socioeconomic groups used the non-normative *-nos* in alternation with *-mos*. Goldvarb provides the probabilistic weight for each one of the factors included within each variable group, indicating the significant statistical contribution of each variable with respect to the dependent variable. The maximum weight is 1.00 and the minimum weight is 0.00. A weight greater than 0.500 favors the application value and a lesser weight disfavors the application value. In other words, a weight of 0.600 would reveal a favoring tendency for the production of the application value. The application value selected for the present investigation is *-nos* given that the investigation focuses on the predictive factors of the use of *-nos* as opposed to *-mos*.

## 5. Results

### 5.1. Descriptive Analysis

This section presents the results obtained from the analysis of the corpus from Mérida, Venezuela. A total of 235 tokens were found in the corpus showing the alternation between *-mos/-nos*. The form *-nos* was used 23.8% (56 out of 235 tokens), while *-mos* was used 76.2% (179 out of 235 tokens).

		Use of <i>-nos</i>	Use of <i>-mos</i>	Total	%
Imperfect indicative	N	55	175	230	97.9
	%	23.9	76.1		
Imperfect subjunctive	N	1	4	5	2.1
	%	20	80		
Total	N	56	179	235	
	%	23.8	76.2		

Table 2: Distribution of the alternation between *-mos* and *-nos* in the imperfect indicative and imperfect subjunctive.

As Table 2 indicates, the imperfect indicative was used more frequently in the corpus with 230 forms (97.9%) compared to the imperfect subjunctive, which had a total of 5 forms (2.1%). In the imperfect indicative, 175 of the 230 forms (76.1%) demonstrated *-mos*.

The imperfect subjunctive is utilized far less in the corpus, with only 5 (2.1%) forms. Of these 5 forms, 4 of them (80%) presented *-mos*. One of the 5 uses within the imperfect subjunctive (20%) demonstrated *-nos*.

		Use of <i>-nos</i>	Use of <i>-mos</i>	Total	%
Absence of <i>Nos</i> and/or <i>Nosotros</i>	N	32	129	161	68.5
	%	19.9	80.1		
Presence of <i>Nos</i> or <i>Nosotros</i>	N	19	48	67	28.5
	%	28.4	71.6		
Presence of <i>Nos</i> and <i>Nosotros</i>	N	5	2	7	3.0
	%	71.4	28.6		
Total	N	56	179	235	
	%	23.8	76.2		

Table 3: Distribution of the alternation between *-mos* and *-nos* in reference to previous instances of the pronoun *nos* and/or *nosotros* in the clause.

Table 3 demonstrates the alteration between *-mos* and *-nos* according to previous instances of the pronoun *nos* and/or *nosotros* in the clause. As can be observed, there are 161 verb forms in which the pronouns *nosotros* and/or *nos* are absent. Of these 68.5%, 19.9% demonstrated *-nos* in this context.

In the 67 (28.5%) forms in which the pronouns *nos* or *nosotros* are present, 19 (28.4%) of the forms demonstrated *-nos*.

The instances in which both pronouns, *nos* and *nosotros*, appeared previously in the clause account for 7 (3%) of the total instances. Of these 7 instances, 5 (71.4%) demonstrated *-nos*.

The results from the variable analysis of previous instances of the pronoun *nos* and/or *nosotros* in the clause reveal that previous instances of both pronouns in the clause yield the greatest frequency of the use of the *-nos*. Previous instances of just one of the pronouns in the clause increase the frequency of the use of the *-nos* more than no previous instances of the pronouns *nos* and/or *nosotros*.

		Use of <i>-nos</i>	Use of <i>-mos</i>	Total	%
Low Frequency Verb	N	37	82	119	50.6
	%	31.1	68.9		
High Frequency Verb	N	19	97	116	49.4
	%	16.4	83.6		
Total	N	56	179	235	
	%	23.8	76.2		

Table 4: Distribution of the alternation between *-mos* and *-nos* based upon verb frequency

As can be observed in Table 4, there are 119 (50.6%) verb forms of low frequency. Of these 119 (50.6%) low frequency verbs, 82 (68.9%) of them utilize *-mos*. The remaining 37 (31.1%) of the 119 low frequency verbs utilize *-nos*. The remaining 116 (49.4%) of the 235 verb forms, are of high frequency. Of these 116 (49.4%) high frequency verbs, 19 (16.4%) utilize *-nos*. The results from the variable analysis of verb frequency reveal that *-nos* increases among low frequency verbs.

		Use of <i>-nos</i>	Use of <i>-mos</i>	Total	%
Female	N	44	91	135	57.4
	%	32.6	67.4		
Male	N	12	88	100	42.6
	%	12.0	88.0		
Total	N	56	179	235	
	%	23.8	76.2		

Table 5: Distribution of the alternation between *-mos* and *-nos* according to gender.

Table 5 indicates that 135 of the total 235 verbs (57.4%) occurred among females. Within these, 44 forms (32.6%) represented *-nos*. The other 100 of the total 235 verb forms (42.6%) occurred among males. Within these 12 forms (12%) represented the form *-nos*.

The results from the variable analysis of the extralinguistic factor gender reveal that females use *-nos* more frequently. These findings are further discussed below.

		Use of <i>-nos</i>	Use of <i>-mos</i>	Total	%
61 and older	N	46	30	76	32.3
	%	60.5	39.5		
46-60	N	6	51	57	24.3
	%	10.5	89.5		
30-45	N	4	45	49	20.9
	%	8.2	91.8		
14-29	N	0	53	53	22.6
	%	0.0	100.0		
Total	N	56	179	235	
	%	23.8	76.2		

Table 6: Distribution of the alternation between *-mos* and *-nos* according to the extralinguistic factor age.

Table 6 reveals the distribution of verbs forms according to age groups. The oldest group shows that 46 forms (60.5%) demonstrated *-nos*. The next eldest age group shows 6 uses of *-nos* (10.5%). The second youngest age group accounted for 49 (20.9%) of the total forms. Within these 49, 4 forms (8.2%) demonstrated *-nos*. The youngest age group accounted for 53 of the total verb forms. All 53 forms (100%) exhibited *-mos*. The speakers in this age group did not demonstrate *-nos*.

		Use of <i>-nos</i>	Use of <i>-mos</i>	Total	%
Lower Class	N	51	16	67	28.5
	%	76.1	23.9		
Lower-Middle Class	N	5	21	26	11.1
	%	19.2	80.8		
Middle Class	N	0	55	55	23.4
	%	0.0	100.0		
Upper -Middle Class	N	0	57	57	23.4
	%	0.0	100.0		
Upper Class	N	0	30	30	12.8
	%	0.0	100.0		
Total	N	56	179	235	
	%	23.8	76.2		

Table 7: Distribution of the alternation between *-mos* and *-nos* according to the extralinguistic factor socioeconomic class.

The results from the distribution according to social class (Table 7) reveal that among the upper, upper-middle, and middle socioeconomic groups there is no alternation between *-mos/-nos*. Each of these three socioeconomic classes shows categorical use of *-mos*. As social class declines into the lower-middle and lower classes, there are instances in which *-nos* appears. It is first attested in the lower-middle class with 5 forms (19.2%) and dramatically increases within the lower class to 51 forms (76.1%). Within the lower class, *-mos* only appears in 16 verbs (23.9%) and increases to 21 tokens (80.8%) in the lower-middle class. This pattern of linguistic behavior is similar to Lopez-Morales' (1989) findings for Puerto Rico, and shows that this variable is conditioned by social class.

## 5.2. Multivariate Analysis

In this section, a discussion of the statistical analysis obtained using GoldVarb is presented. Recall that socioeconomic class was eliminated because it was determined in preliminary runs that only middle lower and lower socioeconomic groups used the non-normative form *-nos* in their speech. There were empty cells for the other class groups, creating a series of knockout factors that impede to run a binomial up and down analysis. The data was submitted to a statistical analysis that included the following factors: mood, previous instances of *nosotros* and *nos*, frequency, gender, and age. Mood and frequency were eliminated from the model. The results indicate that age, previous instances of the pronoun *nos* and/or *nosotros* in the clause and gender are the factors that favor the use of *-nos* instead of *-mos*.



Factor Groups	Factors	No. Tokens	%	Weight
Age	61 or older	46/76	60.5	0.912
	46-60	6/51	10.5	0.415
	14-45	4/102	3.9	0.175
		Range: 74		
Previous instances of the pronoun <i>nos</i> and/or <i>nosotros</i> in the clause	Presence of <i>Nos</i> and <i>Nosotros</i>	5/7	71.4	0.976
	Presence of <i>Nos</i> or <i>Nosotros</i>	19/67	28.4	0.536
	Absence of <i>Nos</i> and/or <i>Nosotros</i>	32/161	19.9	0.445
Gender	Female	Range: 53 44/135	32.6	0.628
	Male	12/100	12.0	0.331
		Range: 30		
Input 0.119 Significance 0.008 No. Tokens 235				

Table 8: Factor groups selected in the alternation between *-mos/-nos* analysis.

The factor group with the greatest range is age. The age factor group composed of individuals 61 years old or older has the greatest weight; a weight of 0.912 (Table 8). Older speakers favor the use of the non-normative *-nos* instead *-mos* in Mérida Spanish.

The factor group previous instances of the pronoun *nos* and/or *nosotros* in the clause has a range of 53. The multivariate analysis also reveals that the factor presence of *nos* and *nosotros* in the clause has the greatest weight of .976. No previous instances of the pronouns *nos* and/or *nosotros* in the clause have the lowest weight of .445. These findings reveal that previous instances of *nos* and/or *nosotros* favor the use of the non-normative *-nos* (e.g. *Nosotros siempre nos ocupábamos más que todo...* ‘More than anything we always occupied ourselves’ from a male, 46-60 years old, lower class). Even though there are a limited number of cases, the tendency seems to be robust; it will definitely need to be corroborated in a bigger sample.

The multivariate analysis reveals that the variant gender has a range of 30 and that females have a weight of 0.628, favoring the use of the non-normative *-nos* in their speech.

## 6. Discussion

The results suggest that the factor previous instances of the pronoun *nos* and/or *nosotros* in the clause may potentially indicate a change by analogy as pointed out in previous work from Espinoza (1909, 1946) and Janda (1995), among others. The occurrence of the pronoun *nos* and/or *nosotros* triggers more usage of *-nos* as an enclitic form, which may be taken as evidence of the semantic connection at play with the pronominal forms *nos* and *nosotros*. Previous research from Espinoza (1909), Janda (1995), and Bullock and Toribio (2006) indicates that the use of *-nos* as a morpheme that alternates with *-mos* may have undergone a process of regularization. In this analysis the data reveals that when the pronoun *nos* and/or *nosotros* is present the speaker favors the use of *-nos* instead of *-mos*. It makes sense from a usage-based account to posit that *nos*, *nosotros* as the most frequent forms related, in both content and expression, influence that *-mos* regularizes to *-nos* in vernacular speech in Mérida Spanish. These results suggest that analogy in this case is not based on a specific construction as it is explained for proportional analogy in historical linguistics for other phenomena, but that the analogy in this case is based on stored exemplars that are connected in both form and content for the expression of first person plural.

The other two factor groups that favor the use of *-nos* are gender and age. Women in the study do not conform to the general tendency according to which they are more conservative than men linguistically (Holmquist, 2011). There might be several reasons to explain this pattern, such as the fact that the group of women in our sample favoring *-nos* belong to the lower and lower-middle socioeconomic classes as well as the oldest age group. One would expect that conservative tendencies are more likely to be found in the middle and upper classes as well as the middle age and younger female cohorts, which is actually the case for this study since middle, upper-middle and upper class women do not show instances of the non-normative *-nos* in their speech. In fact, the analysis shows that 96% of *-nos* cases were produced by lower and lower-middle class, older women while young women of the same background use *-nos* 9%. It must also be taken into account that this variable might be a stereotype associated with the lower class groups as it happened in Puerto Rico (Lopez-Morales, 1989). Therefore, upper and middle class women will disfavor the use of this stereotype, as found in the data (*-nos* was not used at all by these groups of women). Future research in the community should explore the social networks of older women in Mérida as well as their level of education. It is possible to think that older women are part of close-knit networks with little outside interaction and lower levels of education. These two aspects may explain why older women favor the use of vernacular variants. Although some research has been conducted for Caracas (Díaz-Campos, Fafulas, and Gradoville 2011) about the influence of these factors, no research has been conducted for Mérida. The researchers suggest that they are correlated with educational attainment and demographic isolation, since Mérida is a provincial city in a rural state. These speculations may be pursued in future research. For example, an investigation regarding educational level as well as social contacts or networks of older women may reveal that they had limited access to education and that they live in close-knit social networks, which favor the use of the vernacular forms. Research conducted by Díaz-Campos, Fafulas, and Gradoville (2011) suggest access to education relates to the use of standard variants by showing empirical evidence in a sample of speech from Caracas, Venezuela. Sankoff and Laberge (1978) make a similar claim stating that speaker's professional situation determines to some degree their use of the standard language. The type of professional opportunities relates not only with a specific occupation, but also with education. Romaine (1984) also contributes to this claim by pointing out the differences between the language spoken at home and at school.

Based on the claims mentioned above, the researchers suggest that gender influences the use of *-nos* due to limited educational access for older women in rural Mérida, a statement that needs to be further corroborated by future research. Although education has become more accessible to individuals over the years, in the beginning of the twentieth century females did not have the same access to education as males. For example, data from Velazquez (1979) showed that during the 1950s, access to education was more restricted for the entire population, in comparison to the improvements made during the 1970s. This is particularly relevant for older generations where female speakers show more use of nonstandard forms in the corpus. The multivariable analysis indicated that the elderly favored the use of *-nos* much more than the younger age cohorts. Again, although several advancements have been made in the education system, many individuals, especially the elderly, did not experience them. Further research needs to be carried out to provide a more solid conclusion.

## 7. Conclusion

The findings of the analysis reveal that previous instances of *nosotros* and *nos* in the utterance favor the use of *-nos* rather than *-mos*. It was discovered that 71.4% of the cases with previous instances of *nosotros* and *nos* covariate with the use of *-nos*. This result provides empirical evidence that analogy is not limited to a specific structure, but it is related to forms such as *nosotros* and *nos* in a variety of contexts. Observing the individual relationship between the dependent variable and the lexical frequency reveals that low frequency verbs were more likely to be used with *-nos* than high frequency verbs, confirming that the change is first affecting the forms with a weaker mental representation. Even though this factor was not selected by the multivariate analysis, the chi square test shows that the distribution is not random ( $\chi^2 = 0.02$ ), proving it had an effect as an independent variable. The evidence coming from this analysis supports the argument that analogy is tied to the general notion of first person plural. Frequency of use indicates that *-nos* is the form most used to convey first person plural and that is why it becomes the best candidate to be in variation with *-mos*,

which by contrast is less frequent and has a more peripheral location in the exemplar representation. Following Bybee (2001), one can propose that in the case of the alternation between *-mos/-nos* the meaning overrides the divergence of form since they can be considered part of an exemplar cluster that refers to first person plural.

Two other important factors are age and gender. Older speakers and females favor the use of *-nos*. The use of *-nos* can be categorized as stigmatized since this variant is only found in the lower socioeconomic background speakers. Medina Rivera (2011) explains, following Labov (1990), that prestigious variants tend to be used by the people of higher socioeconomic status, while for a stigmatized variable, it would be more common to find it in the lower socioeconomic class. The results reveal that individuals whose age is 61 years old and older are the most likely to use *-nos* instead of *-mos*. Although there is minimal research about the influence of age on the use of this variable, the researchers suggest that educational attainment may be a possible cause for the use of non-normative *-nos*. This argument can also be useful for explaining older women's linguistic behavior, which favors *-nos* instead of *-mos*. Even though the stratification seems to be typical for the use of non-standard variants, further variables beside social class and age such as educational level need to be incorporated.

The present study is a preliminary analysis in the investigation of the alternation between *-mos* and *-nos*. Although 80 conversations were examined, only 235 tokens of the target variable were found. Further research should expand the corpus, as well as provide more details concerning the social structure in Mérida as it relates to the use of non-normative linguistic variants in the Mérida speech community.

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