

INTERPRETING THE LINGUISTIC TRAITS OF LINGUISTIC LANDSCAPES AS ETHNOLINGUISTIC VITALITY: METHODOLOGICAL APPROACH

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Abstract. Studies on bilingual and multilingual linguistic landscapes (LLs) have become a productive source of sociolinguistic information. Most of these studies focus on language presence in the public sphere, but scarce attention has been paid to the actual linguistic traits and their relation with language maintenance and ethnolinguistic vitality. A few studies on Spanish LLs in the U.S. have explored and speculatively confirmed that relation. Thus, contrast with monolingual Spanish LLs has aimed to further validate those findings. However, the complexity of the monolingual corpus has challenged the methodological approach applied to previous studies. In order to address these challenges, the present article provides the guidelines for a systematic examination of written LLs that range from the characterization of the unit of analysis to the interpretation of linguistic data as ethnolinguistic vitality.

Keywords: *linguistic landscape, ethnolinguistic vitality, Spanish*

1. Introduction

The international workshops on linguistic landscape (LL) held in Tel-Aviv in 2008 and Siena in 2009 confirm both the momentum of LL studies and the elusive boundaries of these multifaceted studies. Each piece of research works as a semiotic tile in the mosaic that interprets our social realities. The tile that this present research represents focuses on the relation between a minority group's linguistic traits and that group's ethnolinguistic vitality. Starting from the concept of LL as written texts visible in outdoor public spaces, this chapter aims to provide a methodology to examine linguistic traits systematically, produce consistent quantitative data, and assess ethnolinguistic vitality in bilingual unregulated areas through comparisons with monolingual LLs.

The LL is also a source of written language in society. It offers unique linguistic material to study the Spanish speakers' vernacular in Los Angeles and Miami-Dade Counties. Language and society merge in this written modality like in no other, not only because of its public function, but also by the way and the circumstances in which it is generated, since social conventions are prioritized over academic regulations. This written modality is not subject to the same publishing scrutiny as the newspapers, nor to the normative sieve of student texts, nor to the stylistic revision of literary texts. There are not even language policies that regulate and/or protect minority languages in these counties. Rather, it is the "linguistic norm" of the community—or its vernacular—that determines to a greater extent the parameters under which the texts will be printed (cf. Huebner 2009: 80). This situation grants LLs an expressive freedom similar to that of informal speech while maintaining the obvious formal restrictions of the written language.

Research on Los Angeles and Miami-Dade Counties' LL (Franco-Rodríguez 2005, 2007, 2008) has provided preliminary empirical evidence of the linguistic analyses' validity for providing information about sociolinguistic peculiarities of the locations where they are displayed. The research points apparent ethnolinguistic vitality of Spanish speakers in terms of language presence and language utility, but that vitality is relative to those two bilingual contexts and needs to be compared and contrasted with monolingual locations. To do so, data

has been collected from a mostly monolingual area in a Spanish-speaking country (Almería, Spain).

Most of the components of Los Angeles and Miami-Dade Counties' linguistic analyses have been clearly defined, which makes the extrapolation of this systematic examination to other LL studies straightforward. However, data analysis of the new corpus from Spain has revealed a higher text complexity than the U.S. corpora. This complexity requires a revision of some methodological issues that may challenge the accuracy of a quantitative analysis. For this reason, the following methodological issues are revised: 1) the characterization of the LL written unit of analysis, 2) the distinction between a text's main and informative sections, 3) data collection, 4) the use of lexical information to measure ethnolinguistic vitality, 5) the use of grammatical information to measure ethnolinguistic vitality, 6) the characterization of code switching in LLs and its relation with ethnolinguistic vitality, and 7) the use of orthography to measure ethnolinguistic vitality.

2. Characterization of the LL written unit of analysis

The LL unit of analysis has been recently characterized in diverse ways by different authors (cf. Cenoz and Gorter 2006: 71; Gorter 2006: 3; Coulmas 2009: 15; Spolsky 2009: 32; Huebner 2009: 71-72), but none of the different typifications fully adapt to a linguistic examination that aims to offer quantitative data based on variables such as actor, linguistic traits, symbolic vs. informational sections of a text, and code selection.

The term used to refer to the LL written unit of analysis in previous studies on Los Angeles and Miami-Dade Counties (Franco-Rodríguez 2007, 2008) is *LL text* or just *Text*. This term is defined as all writing displayed in public spaces that has content linked to the business, institution or individual that posts it. This definition can be applied straightforwardly to both counties' corpora. Their texts are displayed in clearly demarcated spaces. The entities that display the texts are easily inferred and seldom share the same support. However, Almería's texts show a higher complexity in the mixture of participating entities. The boundaries of both the LL text and the entity that displays it become blurry when the term LL text is applied to this type of corpus. The reliability of the current characterization is compromised and needs to be reassessed to generate a new one that adapts to more multifaceted corpora. Thus, quantitative data analyses will increase the accuracy in the depiction of the linguistic code used by the community.

The first step towards a revised characterization of LL text is to distinguish three main components intrinsic to the reality that it stands for:

- *Actor*: the entity (business, institution, or individual) or joined entities that compose a text
- *Support*: physical space on or in which the text is displayed
- *Content*: the message transmitted

The term *actor* leads to an unavoidable connection with the concept of authorship (cf. Ben-Rafael *et al.* 2006: 9, 27; Ben-Rafael 2009: 44-48; Malinowski 2009: 108-111). Does the actor conceive the texts, print the texts, or display them? It is safe to say that an actor can do all of the above at once, but may not always do all of the above. This is why the word "compose" has been used to describe the term actor. The actor is the entity that composes the texts by choosing and putting together the linguistic forms that convey the message. But the actor may not be the entity that conceives those forms (e.g. a traditional proverb on a window shop) or that displays the text (e.g. a pedestrian's T-shirt advertising a soft drink).

The distinction between different actors is needed for an optimal interpretation of linguistic traits as ethnolinguistic vitality. These traits need to be assigned to the right actor so that the community's vernacular of a given location is differentiated from characteristics that transcend the community. Thus, LL texts have been categorized into three categories according to the actor who composes them:

- *Private texts*: individuals and local businesses
- *Public texts*: governmental authorities, public and private institutions, and public services such as utilities
- *Corporate texts*: corporations and franchises beyond the local level

Private texts are the focus of this linguistic analysis since they are considered an expression of the community's linguistic preferences. On the one hand, the actors are part of the community (their business or home is in the same area) or know the community (their geographical preference to post the text). On the other hand, they also have knowledge of the community's linguistic code, the one used to communicate with passers-by. For pragmatic reasons (e.g. to sell a product or a service, to rent an apartment, to find a job, etc.), it is expected that these actors utilize the linguistic traits they know will best convey the message in the public space. They know their customers and their neighbors, so a preferred use of the community's shared vernacular in its linguistic landscape is expected. The same argument regarding knowledge of the community's vernacular could be used for institutional and corporate texts, but the former are restricted by the norms of formal writing and the latter are most likely not part of the community. This fact does not imply, though, that institutional and corporate texts are excluded from the analysis. They will be subject to the same analysis as private texts.

Public and corporate texts are also a source of information about the linguistic minority's status. Public texts indicate institutional recognition of the linguistic minority and can be used to measure a minority's social prominence (Landry and Bourhis 1997: 28). Corporate texts can also reflect a minority's social prominence, in particular its economic worth (Cenoz and Gorter 2009). Private texts often have that same value, but the minority's language is used in corporate texts only for economic reasons. The presence of public and corporate texts in unregulated LLs is a reflection of a minority's ethnolinguistic vitality. The comparison of public and corporate texts' presence in bilingual and monolingual LLs combined with data obtained from the linguistic traits' analysis can be used to measure and interpret that vitality.

The term *support* refers to an unrestricted variety of physical spaces (paper, banners, windows, façades, water tanks, sky, etc). These spaces are part of the public sphere, but are limited to outdoor spaces in this type of linguistic study. A text can be displayed on or in one or more supports. When texts are displayed on more than one support, there is a main support and the other supports are visible in, on or around the main support. For example, a store may advertise its products or services on a marquee next to the entrance, with a neon sign on its façade, in a window with multiple signs on it, and any of those signs may also have a sticker on it. In this case, the main support is the entire exterior physical space of the store.

The term *content* is equivalent to the message conveyed by the text. The linguistic analysis proposed here examines only pieces of writing, but also takes into account that other elements with their own meaning can be part of the content as well, such as numbers, logos, pictures, and symbols. The content may be distributed in several supports, but all those supports are considered part of the same text. If a support contains more than one text, it is because they have been produced by different actors. A shared support reveals a complex

interaction between actor, support, and content and requires further attention. The actor of the main support is referred to as the *primary actor*.

The relation between the actor, its text, and the apparent external actor that shares its support needs to be established to determine the number of texts and the identity of the actors. This differentiation makes it possible to match linguistic traits with actors and, therefore, produce systematic analyses with reliable, quantitative results.

Three types of texts composed by external actors and displayed in a shared support have been identified:

- *Guest texts*. The content is related to the external actor and has no direct relation to the primary actor. The concrete external author may or may not be specified. Examples of guest texts are an apartment-for-rent advertisement (Figure 1) and a community festival poster displayed in a clothing store's window.
- *Borrowed texts*. The content is directly related to the primary actor and the external actor is connected to the services, items, or activities advertised by the primary actor. The external actor is always specified, but borrowed texts could have been produced by the primary actor without the participation of an external actor. Examples of borrowed texts are an "open/close" sign displayed on a soft drink company's logo at a restaurant's main entrance and an "opening hours" sign on a shop association's logo on a clothing store's window (Figure 2).
- *Shared texts*. The content is tangentially related to the primary actor and the external actor is usually connected either to a service provided to the primary actor or to a condition of the primary actor. Shared texts are usually in a symbiotic relation with primary texts and require an external actor that is specified or inferable. Examples of shared texts are a security company sign in the store under its protection (Figure 3), a non-smoking sign in a gift store that also contains information about the health department's regulations on tobacco, and a famous author's quote on a bookstore's window.



Figure 1. *Guest text*



Figure 2. Borrowed text



Figure 3. Shared text

The three types of texts with external authorship differentiated above have different functions and actors, but not all are considered independent LL texts for linguistic analysis purposes. Guest texts and shared texts are autonomous LL texts because they are composed by a differentiated actor, display content related to that actor, and usually use their own support within the shared support. However, borrowed texts are considered part of the primary actor's text since they complement its content and focus on the primary actor. Even the participation of an external entity as actor is sometimes arguable. This case occurs, for example, in signs that show the business hours or indicate if a store is open or closed. The specific information displayed is selected by the primary actor that composes the text, not the entity that supplies the sign.

Considering the relation between the three main components of an LL text revised here (actor, support, and content), this term is characterized as follows:

***LL text:** Any piece(s) of writing composed by the same actor with a focal content related to that actor and displayed on a circumscribed support in the public space.*

3. The distinction between main and informative sections of an LL text

The *main section* of an LL text is the part that fulfills one or more of these functions: to identify the entity that displays the text, to deliver the focal message, and to anticipate the content of other sections of the text. The *informative section* complements the main section with additional and more specific information.

The importance of the differentiation between the main section and the informative section is crucial to carry out a systematic linguistic analysis. In terms of ethnolinguistic

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vitality, the main section has a major symbolic function, described by Landry and Bourhis (1997): “to affect people’s view of ethnolinguistic power and status in bilingual or multilingual settings” (27-28). The informative section bears predominantly what Landry and Bourhis (1997) call an informational function: “to provide a source of data about geographical language distribution, language diversity and status, and especially public utility of languages” (25-27).

The main section of the text is a mark of language presence, but it is much more vulnerable to language prestige, globalization, and ethnolinguistic pressure than the informative section. The informative section has a major instrumental function and the linguistic preferences displayed in that section are conditioned by the pragmatic need for effective communication with the reader. The more a minority language is displayed in the informative section, the higher its public utility is. This utility can be used as a measurement of ethnolinguistic vitality.

The main section is usually the most prominent part of the text and is commonly differentiated from the informative section by one or more of these attributes: a larger font size, a different color, a distinctive position in the support, or a separate space in its own support. However, Almería’s corpus contains a number of texts that challenge the mostly unmistakable connection between content and layout found in Los Angeles and Miami-Dade Counties. A description of this connection in five specific instances is presented below.

First, several main sections are possible in a text. The main section is visible not only in a larger support, but also in other smaller supports around the main support (Figure 4).

Second, the support that contains the main section of the text may also contain the informative section. A support does not necessarily circumscribe a section of the text (Figure 5). The distinction between the main and informative sections needs to be made based on the previously mentioned characterization of both sections.

Third, there are texts with no informative section. In this case, either the identifying information is minimized (e.g. a store façade with only the word “upholstery”) or it does not require additional information (e.g. the name of a block of apartments displayed at the main entrance [Figure 6]). Cases of texts with no main section are possible but infrequent.

Fourth, some texts display identifying information in the informative section instead of the main section. In this case, the actor’s identity is normally visible at the bottom of the text or in a marginal position, and in a smaller size. An example of this is a billboard on crime prevention with the local police department’s logo and contact information at the bottom (Figure 7).

Finally, some handmade and typed texts have a lineal distribution with no physical differentiation between main and informative sections. The main section of these texts is the one that presents the focal message and is at the beginning of the text. For example, the underlined part of this advertisement: “Se vende quad esta muy bien todo de casa...” (Quad bike for sale very well kept original factory parts... [Figure 8]). Researcher’s discretion is paramount to apply the content criterion to this type of texts.



Figure 4. Several main sections



Figure 5. Main support with two sections



Figure 6. No informative section



Figure 7. Identifying information in informative section

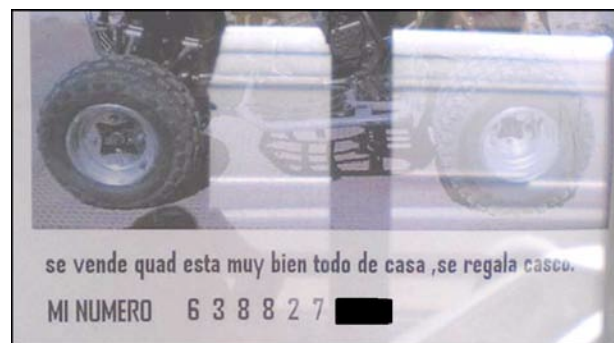


Figure 8. No distinguishable sections

4. Data collection

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Written Spanish in the outdoor linguistic landscape is collected mainly by taking photographs. The advantages of digital photography to store and analyze makes it the preferred option. Non-digital photography posed two major drawbacks in the earliest data collection in Los Angeles County: cost of film and picture development and the lack of a preview function, which made image deficiencies like illegible smaller-print only noticeable after revealing the film. When texts cannot be photographed because of physical constraints (e.g. lack of or excessive light, reflection, blocking objects, etc.) or because of store owners' refusal, written notes or voice recording of texts are used instead.

The locations selected are those that best represent the surveyed linguistic community. Thus, census data is used to determine the location with the highest number and density of Hispanics in bilingual areas of the United States. For the contrastive analysis, there are two criteria: 1) a Spanish-speaking city with no sizeable bilingual or monolingual communities and 2) a selection of commercial areas in different socioeconomic zones with a potential number of texts similar or higher than the bilingual areas already surveyed.

The object of analysis is all LL texts containing Spanish in the selected areas of study. However, some exceptions have been made:

- Graffiti: this type of private texts whose support is the public space is not collected if the studied language(s) are not displayed (as is the case of the areas surveyed in the U.S. and Almería).
- Moving texts such as vehicles and clothing on people: their presence cannot be accurately contrasted in subsequent research, especially in diachronic research.
- Texts from video or TV on screens: they pose the same methodological downside as moving texts. This is not the case of electronic screens, rotating texts, and marquees since the same content or an update of it is visible at the same location at a given frequency.
- Street names: these texts must contain some Spanish. These are English only words or proper nouns in the surveyed counties of the U.S and proper nouns in the areas surveyed in Almería, except for the word "street" in Spanish.
- Small-print writing that is not easily readable from the sidewalk or beyond 5 feet: this print size (approximately, any font smaller than Times New Roman 12) defies the principle of communicability in public spaces.
- Texts on merchandise: their function is not to be part of the LL. Examples of this last exception are newspapers and magazines visible at newsstands and products displayed in shop windows.

5. Lexicon as indicator of ethnolinguistic vitality

Some studies within LL investigations aim to describe linguistic traits as the result of language interference. Bosch i Rodoreda (1998) studies the impact of Italian on Alguer's Catalan in Sardinia; Banu and Sussex (2001), English on Bengali in Bangladesh; Franco-Rodríguez (2005, 2007, 2008), English on Spanish in Los Angeles County (U.S.); Huebner (2006, 2009), English on Thai in Bangkok; Backhaus (2007), English on Japanese in Tokyo; and Hult (2009), English, Swedish, and minority languages in Sweden. These linguistic studies are consequential contributions to the sparse group of studies devoted to the examination of a LL's linguistic traits. However, even these few studies limit their depth of analysis when they give an account of specific linguistic phenomena. There is neither a

methodology specifically applied to the purely linguistic analysis, nor a comparison with results from other sources, nor statistical data that could validate the findings in future contrastive analyses.

The lexical analysis proposed here integrates all elements examined in other studies on Spanish in the United States and aims to produce quantitative data for each variable of analysis. This type of data can be used to characterize LL texts, describe linguistic traits, make reliable comparisons with other studies, and provide information on ethnolinguistic vitality. In particular, the degree of linguistic vitality of a minority language in bilingual unregulated LLs is considered here the reflection of the minority group's ethnolinguistic vitality. The vitality of a minority language can be measured in terms of social utility by a study that combines the following lexical traits and compare results with a monolingual group:

1) *Lexical extension* or the total number of words and the total number of different words, including the part of speech they belong to. The total number of words can be used to compare the average quantity of words per text and, therefore, the presence of Spanish in the LL. The comparison of the total number of different words can provide information about the lexical wealth of the community. The number and degree of different parts of speech can be used to determine if language competency is mostly nominal or reaches higher complexity by using more grammatical words. The quantification of words includes only Spanish and Anglicisms. Brand names, company names, and proper names are excluded, with the exception of geographical names that can be differentiated in English and Spanish (e.g. Dominican Republic vs. *República Dominicana*). Also, words are not counted as different words when the only variations are inflectional morphemes.

2) *Lexical density* or frequency of each lexical item. The comparison of lexical density between the bilingual and the monolingual LLs can help determine when there is high frequency or high lexical utility. The higher the frequency of different words is, the higher the utility of the minority language is.

3) *Lexical amplitude* or social realms in which Spanish lexicon is used. Those realms found provide information on the social activities conveyed in Spanish. The more ambits found, the higher the social utility of the minority language is. The degree of that utility is measured by contrasting results with the monolingual LL. Texts are categorized in twelve realms:

- *Food*: supermarkets, butcher's shops, fish shops, fruit shops, bakeries, cake shops, liquor stores, welfare services, etc.
- *Vehicle*: vehicle repair shops, car dealers, car stereos stores, auto part stores, gas stations, private rental and sales, etc.
- *Beauty and personal care*: hairdressers, gyms, weight loss centers, beauty salons, perfume stores, etc.
- *Education*: beauty academies, citizenship schools, driving schools, nurseries, schools, etc.
- *Entertainment, hobbies and leisure time*: party supplies stores, travel agencies, gift stores, flower shops, video clubs, photo stores, pet stores, etc.
- *Religion and beliefs*: churches, funeral parlors, fortune-tellers, herbal medicine store, etc.
- *Restaurants and catering*: bars, cafeterias, restaurants, etc.
- *Health care*: clinics, medical centers, hospitals, dentist offices, pharmacies, health services, etc.

- *Legal and professional services*: law firms, accounting services, notaries public, insurance companies, real estate agencies, etc.
- *Clothing and apparel*: shoe stores, clothing stores, jewelry stores, dry cleaners, laundries, fabric stores, tailor's shops, dressmaker's shops, etc.
- *Home*: furniture, appliances, computers, television sets, upholstery, tools, plumbing, repairs, private rental and sales, utilities, etc.
- *Financial services*: banks, money order services, pawn shops, etc.
- *Communication*: telecommunication services and products

4) *Lexical function* or the preferred combination of code and lexicon for the symbolic use of the language and the informative use of the language. This is based on the distinction made above between main and informative sections of a text. The major *symbolic function* is carried out by the lexicon displayed in the main section of the text. The major *informative function* is carried out by the lexicon displayed in the informative section of the text. The symbolic function has three different variables: English, Spanish, or bilingual. The informative function has six possible variables (cf. Huebner 2009: 78): English only, Spanish only, Spanish with loanwords in English, English with loanwords in Spanish, bilingual with the same content in both languages, bilingual with different or added content in one of the languages. The analysis of these variables can be interpreted as follows:

- High symbolic use of a code in the LL indicates high public presence and high ethnolinguistic vitality if it is paralleled by high lexical amplitude.
- High informative use of a code in the LL attests to its high public utility. The degree of that code's vitality is measured by its lexical extension and density.
- The use of the minority's code for both functions indicates its high vitality.
- A code used for the symbolic function has social prestige in the social realm in which is displayed if the community mainly uses a different code. The degree of prestige is reflected by its lexical amplitude and extension.
- The use of bilingual texts for the symbolic function reflects the vitality of both codes in the community and the variable used for the informative function indicates the balance between those codes.

5) *Anglicisms*. This term refers here to English words that have not been included in the online version of the 22nd edition of the *Diccionario de la lengua española* that includes the December 2006 updates or the *Diccionario panhispánico de dudas*. These dictionaries are in a continuous revision process based on vast synchronic and diachronic data bases, specialized advisory committees, and the participation of the twenty-one Spanish Academies. The two dictionaries are used as a standardized point from which to obtain values for each LL, but the actual measurement of lexical interference is done by comparing the values of the different LLs. Thus, the lexical analysis of a monolingual Spanish LL is paramount to interpret the results obtained in Los Angeles and Miami-Dade Counties. These are the categories of Anglicisms that will be examined to describe lexical interference:

- *Loanwords*: English lexical units introduced in Spanish LL texts. A *simple loanword* involves one word a *complex loanword* involves two or more words that have a single meaning together. There are three types of loanwords according to their adaptation to Spanish:
 - *Non-assimilated loanwords*: English words without changes (e.g. "modding")
 - *Partially-assimilated loanwords*: English words with some morphological or orthographical Spanish traits (e.g. "conforters" < comforters)

- *Completely-assimilated loanwords*: English words with Spanish morphology and orthography (e.g. “*plogas*” < spark plugs)
- *Calques*: Spanish words that acquire a semantic extension from English. If the word exists in Spanish but the semantic extension is unrelated to the meaning of that word, the Anglicism is considered a loanword not a calque (e.g. “*breca*” [‘sea bream’] < break [‘device to stop a vehicle’]). There are three types of calques:
 - *Simple calques*: they involve one word (“*verticales*” < vertical blinds)
 - *Complex calques*: they involve two or more words (e.g. “*hora feliz*” < happy hour)
 - *Lexical-syntactic calques*: these tax Spanish grammar and/or collocation patterns (e.g. “*auto partes*” < auto parts)

Besides this categorization of Anglicisms, lexical extension, lexical density, and lexical amplitude of loanwords and calques are examined and contrasted with Spanish words in order to determine their functionality. A fourth lexical trait is added to the analysis of loanwords and calques: *lexical dispersion* or the number and type of texts that contain loanwords and/or calques. The comparison of Anglicisms in bilingual LLs and monolingual LLs will serve to determine the degree of lexical interference by differentiating between Anglicisms that replace existing Spanish words and Anglicisms that have no exact equivalent in Spanish. The former indicates a lexical gap in Spanish and reduced vitality, the latter does not have an impact on the vitality. The use of calques and loanwords with any degree of adaptation can also be interpreted as a degree of resistance to lexical interference or a bilingual speaker’s linguistic strategy to manage two codes. This would be considered a trait of bilingual vitality and, therefore, of ethnolinguistic vitality, since the Spanish code shares social utility with English.

6) *Other linguistic preferences*. The lexical analysis can also include other lexical peculiarities that reflect the particular sociolinguistic circumstances of these counties and provide information on linguistic vitality.

First, words that formally resemble their English counterparts are preferred when there are two or more possible options in Spanish (e.g. “*transportación*” is preferred over *transporte*). This preference is not language interference, but indicates the bilingual speaker’s preference for cognates.

Second, there are also some terms that resemble calques since they are Spanish signifiers to which an English signification seems to be added. These words appear in bilingual announcements and their use attempts to express the same meaning in both languages. But, when the English version is contrasted with the Spanish one, one of them is either contextually inadequate or vague with respect to what it announces. Therefore, these words can rather be considered the product of limited bilingualism: “*gorras*” (‘caps’) next to “hats”. The same phenomenon can be seen in translations of complete sentences: “*La camera (sic) está viendo*” (‘the camera is watching’) next to “You are on camera”.

Third, there are words that the *Diccionario de la Real Academia* or some dictionaries and vocabularies identify as regionalisms or varieties from specific Spanish-speaking countries in the Americas such as “*timbre*” (‘ring the bell’ in Colombia and Venezuela). This is a sign of language vitality of particular Spanish-speaking communities.

Fourth, there is a series of terms and expressions that replace their more formal or technical equivalents, which is a reliable indicator of the vernacular register favored by the community: “*doctor de los pies*” (‘foot doctor’) replaces *podólogo* (‘podiatrist’). This is a sign of linguistic vitality, but it also seems to indicate a lower educational level.

6. Grammar as indicator of ethnolinguistic vitality

Grammatical variations from normative Spanish may reflect a decline in language vitality and are normally related to three possible causes: particular dialectal varieties, low educational level, or English interference. These variations are determined by the researcher's expertise, the use of regional and pan-Hispanic grammars, and direct questions submitted to the Spanish Language Academy. Like in the lexical analysis, the deviations from normative Spanish are recorded to obtain quantitative data, but the interpretations of those deviations are provided by comparing the results of the different linguistic landscapes.

All three major causes of grammatical variations can be interpreted as a decline in linguistic vitality, but the linguistic analysis needs to differentiate and pay special attention to those that can be related to English interference. A distinction needs to be made between grammatical processes already initiated in the Spanish-speaking world and those that are not. The latter points to low Spanish competence and the former indicates an evident grammatical neutralization; that is, the two grammars are brought closer together by means of the selection and preferred use of shared structural characteristics, by the gradual extension of the use of those structures in other contexts more common in the L2, and by the gradual increase in the frequency in which these variations are used.

The comparison between monolingual and bilingual Spanish LLs focuses on the following aspects: inconsistency in the use of prepositions, lack of generic and numerical agreement between adjectives and nouns or determiners and nouns, omission of the article that precedes a noun with generic value, position of the qualifying adjective in front of the noun, nouns that modify other nouns in an unusual combination, use of English morphemes to mark number, use of the Saxon genitive, and use of the gerund as a relative clause.

7. Code switching and ethnolinguistic vitality

Code switching is a characteristic linguistic trait of bilingual speakers. Since this phenomenon is interpreted as the ability to use one code or the other, it is be interpreted as an indicator of language vitality and, beyond that, as an indicator of bilingual vitality. The difficulty is how to determine what code switching is in LL texts.

The surveyed bilingual LL texts display structures predominantly at or below the sentence level, but the fact that bilingual Hispanics code-switch within sentences (Lipski 2008: 239-240) suggests that language alternation may also occur in those texts. The type of code switching observed in the LL approximates what Silva-Corvalán (1983: 71-73) denominates code shifting, since it could be either a strategy to avoid not knowing a term in Spanish or the result of an adaptation to the linguistic code that the potential readers of the text may prefer or may know better. There is an obvious difficulty involved in designating the limits between one phenomenon and the other, but it does not prevent from documenting the linguistic dynamics of code switching in LLs.

Code switching in the LL is identified here to operate differently in two types of texts: those with a non-linear distribution and those with a linear distribution. Code switching in non-linear texts is understood as words in one language that provide new information and are physically differentiated—in format, color, placement, shape, size, etc.—from the rest of the words in the other language. The physical discrimination of languages here is interpreted as an explicit recognition of two different codes. The lack of this differentiation will be

considered borrowing. In the case of lineal texts, two cases are identified as code switching: 1) when whole sentences or phrases are in a language different from the rest of the text and 2) when both languages are combined in the name of a business, since it is a reflection of the intrinsic intentionality of using both codes (e.g. “*Familia and Women’s Medical Clinic*”).

8. Orthography interpreted as ethnolinguistic vitality

Orthographical deviations are considered a sign of partial linguistic competency. They are expressions of a nonstandard oral competency or the result of low literacy and limited writing skills.

The analysis of orthographic traits can provide three types of information. First, deviations in spelling may reproduce the vernacular pronunciation (e.g. “*esterios*”, instead of *estéreos*). Second, orthographical errors may be indicators of language literacy (e.g. “*vásquetbol*” instead of *básquetbol*). Third, orthography may reproduce the influence of English orthography (e.g. “*pharmacia*” instead of *farmacia*). The quantitative comparison between monolingual and bilingual LLs in all three areas is a source of information on language literacy and, hence, language vitality. The higher the literacy level of the minority group is in its heritage language, the higher the degree of linguistic maintenance and ethnolinguistic vitality can be expected.

Orthographic deviations in LL texts are quantified according to the type of text (private, institutional, corporate) and the absence or presence of apparent English interference. The results are subsequently interpreted in terms of language literacy and language interference.

9. Concluding remarks

Research on Los Angeles and Miami-Dade Counties’ LLs has shown how the linguistic traits visible in the LL can reflect the sociolinguistic reality of Hispanics in those areas. Lexical, grammatical and orthographical data provide information about the degree of public utility and linguistic vitality. Moreover, an interpretation of that information as ethnolinguistic vitality can be achieved if results are compared with a monolingual Spanish LL through a systematic linguistic analysis. However, the textual complexity of the monolingual Spanish LL surveyed requires a revision of methodological procedures to maintain validity and reliability of the results.

The methodological revision has produced a twofold consistent frame for the linguistic analysis. On the one hand, core questions of LL studies have been answered: the characterization of the LL written unit of analysis, the different sociolinguistic functions of the principal sections of a text, and the parameters of data analysis. On the other hand, a characterization of the linguistic analysis’s components has been provided and the correlation between quantitative linguistic data and ethnolinguistic vitality has been specified in the areas of lexicon, grammar, code switching, and orthography.

The methodological approach presented here is designed for unregulated bilingual LLs, where texts are not conditioned by linguistic policies. However, there are characterizations of core research elements that can be shared with other studies on written LL texts. Those characterizations are tentative and may require further revisions, but can serve as a starting point to join scholarly endeavors within LL studies.

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