Vital Signs: A photovoice assessment of the linguistic landscape in Spanish in healthcare facilities along the U.S.-Mexico border

Glenn A. Martínez
Professor of Hispanic Linguistics
Department of Spanish and Portuguese and
The James Comprehensive Cancer Center
The Ohio State University
Martinez.474@osu.edu

Abstract

The intersection of health literacy and limited English proficiency is a concern of increasing importance. While there is considerable overlap between populations with limited English proficient and low health literacy, there may also be interaction effects in which low health literacy is exacerbated by unequal access to and differential presentation of information. In this study, interaction effects are explored by examining the linguistic landscape of healthcare facilities using a photovoice approach. A sample of 32 young Spanish-speakers residing in the U.S.-Mexico border region participated in the study. Youngsters went to healthcare facilities normally visited by family members and took pictures of publicly displayed signs and written materials. They wrote captions for each photograph and presented their photographs in a critical dialogue session. The results of the study indicated that participants perceive significant differences in the presence of English and Spanish on the linguistic landscape in healthcare facilities. Signs in English were more numerous than signs in Spanish. Spanish signs, furthermore, were plagued with spelling errors, grammatical errors, and unintelligible translations and were less likely than English signs to convey information about salient health concerns. Participants interpreted these patterns as indexical of the inequities faced by Spanish speakers in the health delivery system. This study demonstrates that care should be taken to create a health literacy environment that provides adequate information and that makes non-English speaking patients feel welcome.

Key words: CLAS Standard 7; Linguistic Landscape; Photovoice; U.S.-Mexico Border

Introduction

The intersection between health literacy and limited English proficiency has been identified as a serious and understudied area of concern within the health literacy literature (McKee & Paasche-Orlow 2012). On the one hand, there may be significant overlap between the populations at risk for low health literacy and limited English proficiency which can magnify poor health outcomes (Sudore 2009). On the other hand, there may also be interaction effects that create unique and insurmountable barriers to obtaining and processing health information for limited English proficient populations (Egede 2006). This later concern has recently garnered national attention through a syndicated Associated Press news piece entitled "Health care website frustrates Spanish speakers" that criticized the Spanish version of the federal health insurance exchange website www.cuidadodesalud.gov. In addition to complaints about the late launch and technical glitches on the site similar to those surrounding the English version, the article points out that "a web page with Spanish instructions linked users to an English form" and that "translations were so clunky and full of grammatical mistakes that critics say they must have been computer-generated."The article concludes by quoting a political science professor from the University of New Mexico who said Spanish-speakers will look at the web site and think "Man, they really don't care about us" (Associated Press 2014). This article showcases how the unequal access to texts and information in the health literacy environment can place limited English proficient populations at a disadvantage. Concern over the health literacy environment for non-English speaking populations, however, is not new in the research on limited English proficiency.

The 2001 National Standards for Culturally and Linguistically Appropriate Care (CLAS) issued by the Office of Minority Health (OMH) in response to Executive Order 13166 (Spolsky 2004), for example, identified the health literacy environment as a significant part of language access policy. CLAS standard 7 states that "health care organizations must make available easily understood patient-related materials and post signage in the languages of the commonly encountered group and/or groups represented in the service area" (U.S. Department of Health and Human Services 2001). Through this standard the OMH sought to improve access for LEP populations by educating patients on the availability of health care resources, indicating how to access those resources, and identifying patient rights (American Institutes for Research 2005). The Enhanced CLAS standards of 2013 further underscore the relationship between health literacy and the standards related to health-related materials and signage in languages other than English. The OMH states that the purpose of this standard is to "ensure that readers of other languages and individuals with various health literacy levels

are able to access care and services, to provide access to health-related information and facilitate comprehension of, and adherence to, instructions and health plan requirements, to enable all individuals to make informed decisions regarding their health and their care and services options" (U.S. Department of Health and Human Services 2013, 93).

Research on the implementation of CLAS standards has uncovered ongoing barriers to full compliance with standard 7, however. In a national survey of 202 hospitals, for example, only 51% of the sample provided hospital signage in the language of the most commonly encountered group in the hospital's service area. The same study found that only 57% of the sample reported availability of informed consent and hospital discharge instructions in a language other than English (Diamond, et. al. 2010). A cross-sectional telephone survey of 162 pharmacies in New York City, furthermore, found that while 69% of the pharmacies surveyed reported the ability to provide drug labels in Spanish, a full 86% reported that they used a computer-generated translation to do so. Furthermore, only one pharmacy in the sample reported to have a Spanish-speaking pharmacist on staff who could verify and correct computer translations (Sharif, et. al. 2006). Notwithstanding claims that "standard 7's requirement of providing written materials and signage in languages common in the service area should not provide a particular burden on providers," full compliance with this standard has proven to be elusive in many health delivery settings (Hoffman 2011, 50).

While previous research has identified barriers to the implementation of CLAS standard 7, it has not ascertained the impact of these barriers on LEP users of health care services. In fact, the lack of measures and methodologies to assess the health literacy environment and its impact on LEP users presents a fundamental gap in our understanding of the relationship between health literacy and limited English proficiency. In this paper, I draw on theoretical insights from contemporary sociolinguistics and methodological trends within the framework of participatory action research in order to fill this gap. The identification and investigation of the "linguistic landscape" within the sociolinguistic literature, I argue, presents a unique and rich way of conceptualizing the health literacy environment that surrounds LEP populations within the health delivery system in the U.S. The methodological technique that has emerged in health needs assessment research known as "photovoice," I further contend, provides a powerful means to tap into the perceptions of the health literacy environment from the perspective of LEP populations. The application of these insights to the healthcare environment in multilingual settings, I conclude, portends the difficulties and challenges that emerge in the interstices of health literacy and limited English proficiency in the delivery of health care to a diverse and multilingual community.

The Linguistic Landscape

The concept of the "linguistic landscape" (LL) was developed in order to describe the conflicting and complementary relationships that emerge between multiple languages that coexist in a single community. The first definition of the term referred to LL as "the language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings within a given territory, region, or urban agglomeration" (Landry & Bourhis 1997, 25). In this definition, LL served as a visual representation of patterns of language choice. It was assumed that a direct correspondence existed between the language heard in public places and the languages seen on billboards, road signs, commercial signs, etc.

More recent definitions, however, have challenged this somewhat static and passive conceptualization of the LL. They have viewed LL, instead, as a symbolic construction of public space (Ben Rafael 2006), as a strategic tool wielded in local politics, power struggles and competing claims to space (Leeman and Modan 2009), and as a mechanism in determining and sustaining unequal power relations between hegemonic and subordinate groups (Pavlenko 2009). This amplified perspective has allowed researchers to approach LL as a spatial practice that constitutes social relations and creates social inequalities. Following the work of critical geographer Henri Lefebvre (1992), sociolinguists have argued that the LL is not a neutral container of multilingual expressions, but rather that the LL constructs and shapes the type and character of the relations that exist between expressions in multiple languages. The LL should thus be evaluated not as an objective physical environment but as the subjective representation of those who inhabit the environment (Leeman & Modan 2009). LL within this view may be more properly described as a process of "linguistic landscaping" where linguistic resources are deployed to achieve social ends (Pennycook 2010).

This approach has unearthed novel methods for studying and comprehending the LL within its social context. Ethnographic accounts of spatial inhabitance (Curtin 2007; Shohamy 2012), historical accounts of the planning processes that construct the LL (Leeman & Modan 2009), and formal accounts of the relationship between languages and text types on the LL (Ben Rafael 2006; Backhaus 2007) have emerged in connection with this view. Through these novel methods, furthermore, significant questions have emerged about the symbiotic relationship between the LL and the social interactions couched within it. How does the display of languages on the LL convey a sense of belonging among those who inhabit it? What is the relationship between the presence of a language on the LL and the legitimization of speakers of that language? What elements of the LL are deployed to make these meanings? Questions such as these may be profitably extended to the domain of healthcare and may enhance our understanding of the interaction effects of health literacy and limited English proficiency.

The Linguistic Landscape in Health Care Environments

Recent advances in LL research provide a rich framework within which to evaluate the implementation of policies such as CLAS standard 7. First, LL research provides a methodological framework for sampling material realizations of languages other than English in healthcare facilities. Second, it raises new questions about the nature of texts that exist on the LL in healthcare. Who authors the LL? How is the LL experienced and embodied by multiple stakeholders? Finally, it gives us pause to consider the multifaceted effects of multilingual signage and printed materials in healthcare settings. What messages do signs convey to both English and non-English-speaking patients? How do these messages shape power relations, territoriality, and interpersonal interactions in healthcare encounters?

The present study engages these insights by investigating the LL in healthcare organizations in a region with a high concentration of Spanish-speakers. It seeks to shed light on the following research questions. What aspects of the healthcare facility LL are salient to Spanish speakers? How do Spanish speakers evaluate these aspects of the LL? What ideologies of language are inscribed on the LL? And how do these ideologies of language shape power relations and claims to space within healthcare facilities? Answers to these questions will contribute to our understanding of the relationship between health literacy and limited English proficiency in general. More specifically, they will provide insights into the subjective experiences of Spanish-speakers within an English dominant health literacy environment.

Methodology

Approach

A participatory action research model was used to explore the subjective experiences of Spanish speakers within a health literacy environment. Photovoice is a participatory action research method that enables people to document, reflect upon, and communicate community needs through the techniques of documentary photography and critical dialogue (Findholt 2011, Wang 1997). Wang summarizes the method as follows: “From the people, their visions and their words, we can begin to assess real local needs, in the hope that the divergent perspectives of health professional sand laypeople will converge to exert a more effective impact on a community’s well being” (1997, 385). The goals of photovoice are to enable people to record and reflect on their community’s strengths and concerns, to promote critical dialogue and knowledge about important issues through discussions of photographs, and to reach policymakers (Catalani 2010). In previous studies, the photovoice approach has been shown to contribute to an enhanced understanding of community assets and needs and to promote community empowerment (Catalani 2010, Brazg 2011). In this study, I draw on photovoice methodology to explore community perceptions of the LL in healthcare environments, to develop critical awareness and knowledge about the public display of language in these environments, and to connect community concerns about the LL to larger concerns about inequity in healthcare settings.

Setting

The study was conducted in a variety of healthcare organizations in Hidalgo County, Texas along the U.S.-Mexico border (see map in Figure 1). Healthcare organizations included hospitals, clinics, doctor’s offices, rehabilitation centers, dialysis centers, and pharmacies. Hidalgo County is an ideal site to study the ways that Spanish-speakers perceive the LL in healthcare organizations. On the one hand, Hidalgo County is a region with a large concentration of Spanish speakers. According to the U.S. Census Bureau, 34% of the population in Hidalgo County speaks English less than “very well”, and 85% of the population speaks a language other than English in the home. On the other hand, healthcare utilization in Hidalgo County is high. The prevalence of diabetes is among the highest in the nation at 26% and hospital admissions for long term diabetes complications are double the statewide average (Texas Diabetes Council 2011).

Participants

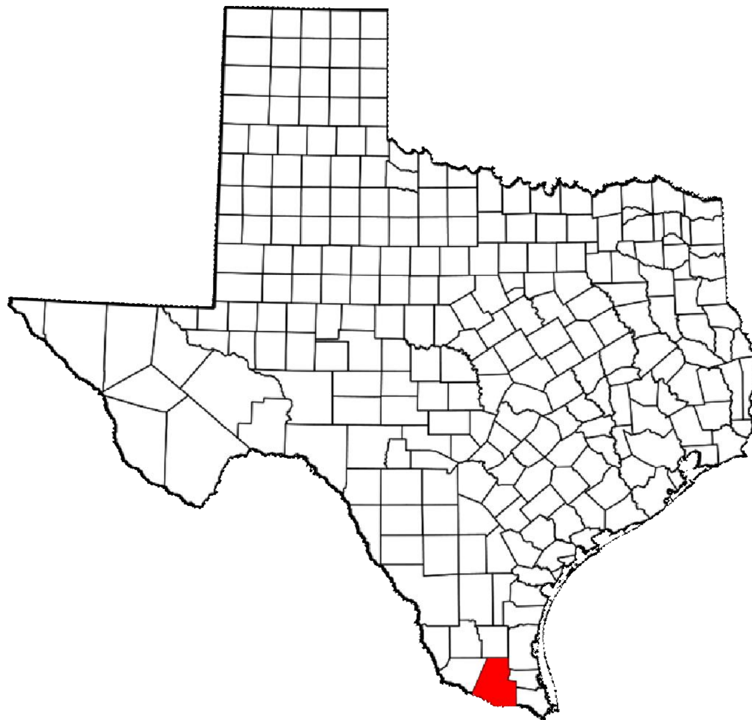
Spanish-speaking youths between the ages of 18 and 22 participated in the project. All of the participants were high school and college students with an interest in health-related careers and reported to have served as a language broker for a parent, grandparent, or other family member within the past six months. Recent research has shown that young bilinguals view themselves as critical stakeholders in the informal health economy (Green 2005). According to this research, language brokering bolsters self-esteem, develops negotiation skills, and engenders pride in the ability to help one’s own family (Green 2005). It has also been shown to facilitate family involvement in public spaces and to enhance youngsters’ view of themselves as public citizens (Orellana 2009). Young Spanish speakers, therefore, offer a unique perspective on the linguistic landscape in healthcare organizations. A purposeful convenience sample of 32 Spanish-speaking youths was drawn from a population of 120 students enrolled in a college-level advanced Spanish course to participate in this study. Students were informed of the nature of the study and its goals and were assured that the decision to participate would not affect their performance in the class. Students who consented to participate were enrolled in the study.

Data Collection

Enrolled participants were gathered in a classroom setting and trained in photovoice methodology. The training consisted of a presentation of the goals and principles of the photovoice approach and the presentation of an example of the youth directed photovoice project *Health in my Hometown* (www.healthinmyhometown.org). At the conclusion of the training session, participants were asked to respond to the following questions: How do

healthcare organizations in my community communicate with patients through signs? Do these signs make my community feel welcome in their local hospitals, clinics, and doctor's offices? In order to answer these questions, participants were asked to go to the healthcare facilities that were frequently visited by their family members. They were asked to take five pictures of signs, pamphlets or other visual manifestations of language within the facility. They were also asked to write a caption for each photograph that expressed why they took that particular photograph and how that photograph made them feel. The participants collected 159 photographs and wrote captions for each photograph over a two-week period. When the participants had completed the photo assignment, they were asked to create a poster board demonstrating each photo and its caption. A second gathering of the participants took place in a classroom setting, and each participant showed their five photos, identified their favorite photo, and told the group why it was their favorite. Other participants reacted to the photos and engaged in a critical dialogue about the photos. The dialogue lasted 45 minutes and was recorded and transcribed.

Figure 1 ***Hidalgo County Texas***



Source: David Benbennick.
Retrieved on 3 July 2014 from http://commons.wikimedia.org/wiki/File:Map_of_Texas_highlighting_Hidalgo_County.svg

Data Analysis

The photograph captions and the transcription of the critical dialogue session were analyzed qualitatively in order to uncover salient themes and categories. Individual photographs and captions were then analyzed from a discourse analytic perspective in order to uncover the language ideologies perceived by the participants. Finally, broad descriptive categories and discourse features associated with the photographs and the captions were quantified and analyzed.

Findings

Three overarching themes were identified in the results: code preference, inscription, and discourse types (Scollon & Scollon 2003).

Code preference refers to the perception of differences in the distribution of English and Spanish on the LL. Participants noticed that signs in English were more numerous than signs in Spanish in the healthcare facilities visited.

Inscription refers to the perceived differences in the writing style on signs in English and Spanish. Participants noted, for example, that spelling errors were more frequently encountered on Spanish signs than on English signs.

Discourse type refers to perceived differences in the types of discourse on signs in English and Spanish. Signs dealing with health promotion and health information,

for example, were more common in English while signs dealing with payment, hours of operation, and clinic rules were most common in Spanish.

Together these findings suggest that the LL in healthcare facilities in this border region is perceived as inadequate. Furthermore, through critical dialogue about these findings, participants noted that the LL is indexical of inequity in the healthcare system.

Code Preference

Participants noted that information on the LL was differentially distributed in English and Spanish. Signs communicating health-related information, for example, were present in English but not in Spanish. Participants frequently commented on the absence of this information in Spanish. Signs communicating administrative information, on the other hand, were commonly found in both English and Spanish. These signs communicated information such as the hours of operation, insurance policies, and methods of acceptable payment. Participants also commented on the preponderance of this type of information in Spanish on the LL in healthcare organizations. The distribution of information by language and type is represented in Table 1.

Table 1 ***Signs Observed in the Study by Information Conveyed and Presence of Spanish***

	Signs conveying health related information	Signs conveying non-health related information
Spanish language present	29% (18)	67% (66)
Spanish language not present	71% (43)	33% (32)
Total signs observed	100% (61)	100% (98)

In the critical dialogue session, participants expressed their reaction to this uneven distribution of information. In reaction to a photo of a poster for notification of patient rights, the participant who presented the picture said:

This picture makes me mad! I found this poster in a radiology office. Every single person in the waiting area was speaking in Spanish. There was no way for these patients to know about their rights to privacy because the poster was not available in Spanish. I asked myself: How are Spanish speakers supposed to know their rights? Does speaking English make you more important?

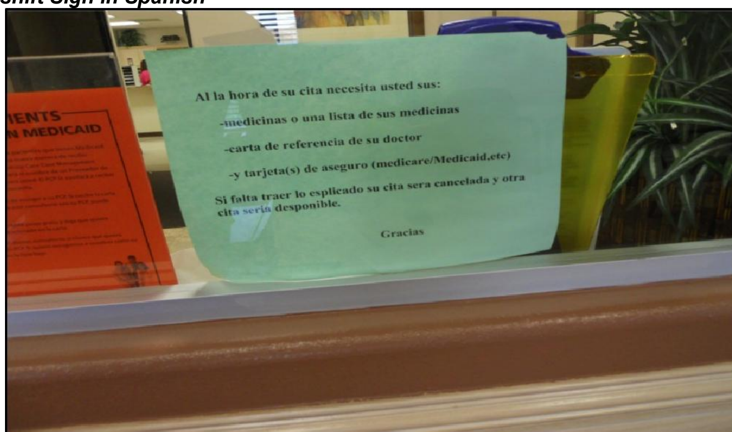
In this reaction, it is clear that the distribution of written language on the LL presents a blatant mismatch with the oral language heard all around. The participant makes this point explicit when she points out that "every single person in the waiting area was speaking Spanish." The mismatch appears to be responsible for the anger provoked upon seeing this poster. It also leads her to question the importance given to Spanish speaking patients in the facility.

Previous sociolinguistic research on the LL has demonstrated similar affective reactions to issues of uneven code preference. In her study of the LL on a university campus in Israel, for example, Shohamy (2012) notes that Arabic students interpret the relative absence of Arabic signs on the campus as a reflection of their exclusion and invisibility within the institution. In the present study, participants expressed a similar sentiment. This sentiment, furthermore, appears to engender negative perceptions of the healthcare institutions.

Inscription

Participants in the study were sensitive to the use of non-standard orthography, grammatical errors, and unintelligible translations on Spanish signs observed in the healthcare facilities. They were also attentive to the makeshift character of many of the signs encountered in Spanish. Almost one third of all the signs photographed in Spanish were of the makeshift type (see Figure 2), but less than 10% of the signs observed in English were of this type.

Figure 2 ***Makeshift Sign in Spanish***



Many of the signs encountered in Spanish, furthermore, contained spelling errors, grammatical errors, and unintelligible translations. In fact, nearly half of the makeshift Spanish signs photographed by the participants contained these types of errors (n=24). Participants often reacted forcefully to these errors. They considered that the errors demonstrated a lack of professionalism and that they showed blatant disregard for Spanish speakers. In reaction to spelling errors on signs in Spanish, for example, one participant stated:

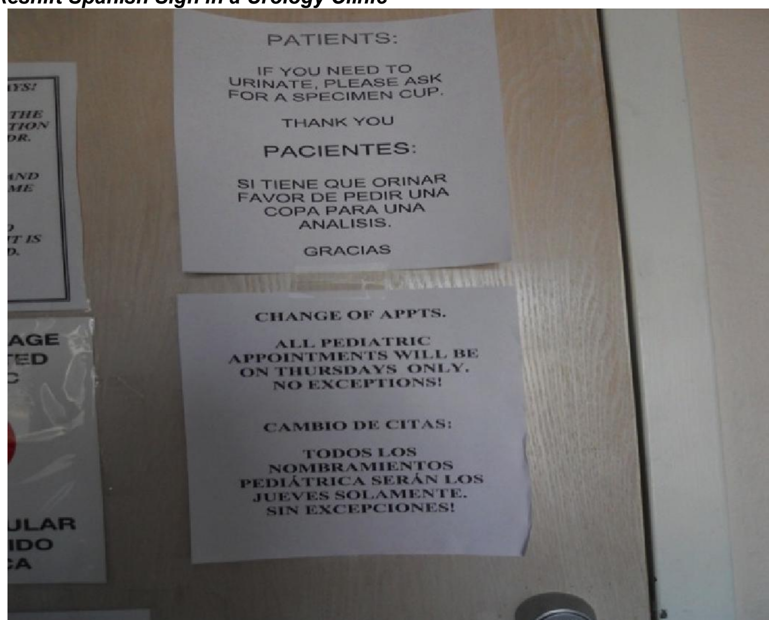
> *This picture reveals huge spelling mistakes. I took this photo because it shows that the hospital is either presenting itself as ignorant or it is showing a lack of interest in Spanish-speaking patients.*

The interpretation of these errors as an expression of the value that the healthcare institution places on its Spanish-speaking patients was a common sentiment among the participants. In reaction to the photograph in Figure 3, one participant stated the following:

> *In a urology clinic, these signs give instructions for making appointments and providing a urine sample. This is the worst translation that I have ever seen. It is difficult to understand what the Spanish sign means. These kinds of signs show that there is very little interest in Spanish-speaking patients and there is a lack of professionalism in the clinic.*

Previous LL studies have viewed non-standard spelling on the landscape as a way of transgressing societal norms and have normally associated it with graffiti or other transgressive modes of linguistic landscaping (Jaffe 2000, Androutsopoulos 2000, Coupland 2010). In this study, however, non-standard spelling is not viewed as a transgressive mode of landscaping but rather as an institutionally sanctioned mode. Because of this, the presence of non-standard spelling is viewed as an expression of contempt for Spanish speakers within the healthcare facility.

Figure 3 ***Makeshift Spanish Sign in a Urology Clinic***



Discourse Types

Participants in the study perceived that information in Spanish on the LL clustered into very specific discourse types. Promotional discourses were those that advertised and recommended the services and/or products offered at the facility. Way finding discourses were those that oriented viewers to different divisions and departments within the facility. Payment discourses were those having to do with method of payment, time of payment, and insurance carriers accepted. Regulatory discourses were those that stated expectations and prohibitions within the facility such as No Smoking, No Cellular Phones, and Do Not Leave Children Unattended. In the photographs taken by the study participants, regulatory discourse was the most common discourse type found in Spanish while promotional discourse was the most common discourse type found in English. The second most common discourse type in Spanish was payment discourse followed by way finding discourse. Promotional discourse was rarely found in Spanish on the LL in this study. Table 2 illustrates the distribution of Spanish signs by discourse type.

Table 2 ***Signs Observed in the Study by Discourse Type and Presence of Spanish***

	Regulatory Discourse	Payment Discourse	Wayfinding Discourse	Promotional Discourse
Spanish language present	77% (38)	56% (13)	73% (11)	36% (4)
Spanish language not present	33% (11)	44% (10)	27% (4)	64% (7)
Total signs observed	100% (49)	100% (23)	100% (15)	100% (11)

The preponderance of regulatory and payment discourses in Spanish was perceived by the participants as detrimental to Spanish speakers. They expressed that these types of discourse on the LL unnecessarily elevated anxiety about how to act and unevenly pressured Spanish speakers for payment for services. In response to a bilingual sign that reads "No Food, No Drinks, No Candy, No Gum" in English and Spanish, one participant stated:

> *I visited a dentist's office and this was the only sign that I could find in Spanish. This sign sent the message to me that the clinic was more worried about the cleanliness of the waiting area than they were about the oral health of patients.*

The preponderance of regulatory discourses on the LL in Spanish enhanced the sentiment among the participants that healthcare facilities are not concerned with creating a positive and welcoming atmosphere for their Spanish-speaking patients. The preponderance of payment discourses, furthermore, was viewed as a way to place additional pressure on Spanish-speaking patients. In response to a sign indicating that payment is due when services are rendered, one participant observed that "this sign makes patients focus on payment rather than on their health."

Discussion

From the testimony of the participants in this study, it is evident that the LL in healthcare facilities is more than a mere backdrop to the experience of linguistic inequality that occurs within that space. The LL is a spatial practice that constitutes unequal power relations in clinical spaces and that creates a subordinated position for Spanish speakers in these spaces. The character of the LL as seen through the photographs taken by the participants in this study suggests that spatial claims are made and reiterated in healthcare facilities that define them as spaces of privilege for English and spaces of disadvantage for Spanish.

The enforcement of these claims was made clear in participants' discussions of the hostile environments they encountered while carrying out the study. One participant recalled:

> *I had problems in one hospital. They wouldn't let me take pictures there. So, I snuck my camera in to take pictures. What I found was that there were no translations of signs and when there were translations, they were of poor quality.*

Other participants also encountered hostility in attempting to photograph publicly displayed signs and written materials.

> *So, I asked him, uhm, can you show me the form, the one I need to fill out? And he says yes and gives it to me. And the form is in English and then I ask: Can I see the Spanish one? And he says, well we don't have a Spanish one. Oh ok. And can I take a picture of this one? And he says, no!*

These encounters reveal the hostility and suspicion that participants were met with in healthcare facilities. These hostile tactics underscore the sedimentation of the spatial claims that preserve the privilege of English and the subordination of Spanish on the LL (Stroud & Mpendukana 2009).

In the critical dialogue sessions, the power dynamic that participants encountered in these spatial claims evolved into a more overarching view of inequity in the health delivery system. The effacement of Spanish on the LL in healthcare facilities was seen as detrimental to the dignity, the rights, and the health of Spanish speakers. In the critical dialogue session, for example, one of the participants remarked that critical information was omitted in Spanish on the LL.

> *…that the safety and privacy of the patient are very important but they didn't provide any of that information in Spanish. So, things like that, that are really important, they didn't have it in Spanish, really basic things.*

In response to observations such as this one, participants pondered the effect that these omissions of information in Spanish on the LL might have on the health of Spanish-speaking patients.

> *I think that hospitals need to give this more attention so that they can help people. Because sometimes all the hospitals see is money, but it is more than that, it is life, it is health and well-being for everybody*.

Conclusion

Recent advances in LL research provide new and unique insight into our understanding of the health literacy environment created in healthcare organizations and of its interaction effects with limited English proficiency. In particular, this study suggests that LL may profitably be seen as a spatial practice that constitutes uneven power relations within a defined area. It has also suggested that

this spatial practice is best explored from the point of view of the subjects who inhabit it. Finally, it has proposed that better understanding of the way Spanish speakers experience the LL in healthcare environments may provide new and better insights into the implementation of the signage policies that are part of CLAS.

The study utilized photovoice methodology to identify and describe the subjective representation of the LL by Spanish-speakers who play a critical role in the informal healthcare economy of the region. The youth who participated in this study were also language and cultural brokers who were aware of the difficulties faced by non-English speakers in the U.S. health delivery system. This experience, I believe, lent them a critical eye that was evident in the photos that they selected, captioned, and brought back to the group for discussion. The study revealed that these participants evaluate the LL in terms of a greater preference for English, a preponderance of non-standard orthography in Spanish, and an over compensation of regulatory and payment related discourse in Spanish. These characteristics of the LL, furthermore, were interpreted by the participants as a way of subordinating and devaluing Spanish speakers in healthcare facilities. They viewed this subordination and devaluation, furthermore, as part and parcel of a larger spatial claim that preserves the privilege of English and its speakers in the healthcare facility – oftentimes in spite of the ongoing and overwhelming auditory presence of Spanish. The larger spatial claim identified by the participants was reified through the hostile reactions that they encountered in carrying out the study. The participants, finally, challenged this spatial claim by pointing out that it compromises the dignity, the rights, and the lives of Spanish-speaking patients.

The theoretical formulation of linguistic landscape combined with the methodological resource of photovoice has proven to be a powerful tool to study the health literacy environment faced by non-English speakers within healthcare organizations. In particular, this combined resource has allowed for a critical view of the kinds of signs that Spanish speakers are exposed to and how they interpret them within the context of the larger health delivery system. Future research on the linguistic landscape can advance our understanding of this important facet of the relationship between health literacy and limited English proficiency by exploring the experiences of older non-English speaking patients and by investigating the processes and policies used by healthcare facilities in generating these landscapes.

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