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¡Ya pué[h]! Perception of coda-/s/ weakening among L2 and heritage speakers in coastal Ecuador

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ABSTRACT

EN This investigation lies at the intersection of second language acquisition (SLA), sociophonetic variation, and speech perception. Specifically, it investigates the perception of coda /s/-aspiration (producing *disco* as [dih.ko]), a dialectal feature characteristic of *Guayaquileño* (coastal Ecuadorian) Spanish, among 14 young-adult English speakers who travel to Ecuador. The study investigates the participants' ability to perceive an aspirated variant as a legitimate /s/ over time as they are further exposed to the local variety. It also explores the linguistic and extralinguistic factors that play a role in the perception of the variable such as phonological context of /s/, proficiency level, and individual differences in experience with /s/-weakening dialects. Results suggest that most learners are able to acquire new mappings within their interlanguage phonological system. However, results vary according to proficiency, phonological context of /s/, and at the individual level. The results also suggest that gains in sociolinguistic competence can be seen in terms of perception (as opposed to only in learner production), which underscores the necessity to include perceptual studies in future research in variationist SLA.

Key words: SECOND LANGUAGE ACQUISITION, PERCEPTION, DIALECTAL VARIATION

ES Este estudio se enmarca en la adquisición de segundas lenguas, la variación sociofonética y la percepción del habla. Más concretamente, investiga la percepción de la aspiración de /s/ en posición final de sílaba (la producción de *disco* como [dih.ko]), un rasgo dialectal característico del español *Guayaquileño* (de la costa de Ecuador), por 14 jóvenes adultos de habla inglesa que viajaron a Ecuador. El estudio analiza la habilidad de los participantes de percibir la variante aspirada como /s/ con el paso del tiempo y una mayor exposición a la variedad local. Explora, además, los factores lingüísticos y extralingüísticos que afectan la percepción de la variable, como, por ejemplo, el contexto fonológico de /s/, el nivel de dominio del idioma y las diferencias individuales relacionadas con la exposición previa a dialectos con un debilitamiento de /s/. Los resultados sugieren que la mayoría de los aprendientes son capaces de adquirir nuevas correspondencias dentro del sistema fonológico de su interlengua; sin embargo, muestran mucha variación individual, relacionada con el nivel de dominio de la lengua y el contexto fonológico de /s/. Los resultados sugieren, además, que las mejoras en la competencia sociolingüística de los aprendientes pueden analizarse en términos de percepción y no solamente producción, hecho que destaca la necesidad de incluir estudios perceptivos en las investigaciones futuras de la variación en el ámbito de la adquisición de segundas lenguas.

Palabras clave: ADQUISICIÓN DE SEGUNDAS LENGUAS, PERCEPCIÓN, VARIACIÓN DIALECTAL

IT Questo studio si pone all'incrocio tra acquisizione di seconde lingue, variazione sociofonetica e percezione del linguaggio. In particolare, indaga la percezione di /s/ aspirata in posizione finale di sillaba (la produzione di *disco* come [dih.ko]), una caratteristica dialettale dello spagnolo guayaquileño (della costa dell'Ecuador) da parte di 14 giovani inglesi che sono andati in Ecuador come volontari. Lo studio indaga la capacità dei partecipanti di percepire la variante aspirata come /s/ non aspirata in relazione al passare del tempo e a una maggiore esposizione alla varietà locale. Esplora, inoltre, i fattori linguistici ed extralinguistici che giocano un ruolo nella percezione della variante, come il contesto fonologico di /s/, il livello di competenza linguistica e le differenze individuali basate sull'esposizione a dialetti con indebolimento di /s/. I risultati suggeriscono che la maggior parte degli studenti è in grado di acquisire nuove mappature nel sistema fonologico della loro interlingua. Tuttavia, i risultati variano a livello individuale e in base alla competenza linguistica e il contesto fonologico di /s/. I risultati indicano anche che il miglioramento della competenza sociolinguistica degli studenti può essere analizzato in termini di percezione e non solo di produzione sottolineando la necessità di includere studi percettivi nella ricerca variazionista nell'ambito dell'acquisizione di seconde lingue.

Parole chiave: AQCUISIZIONE DI SECONDE LINGUE, PERCEZIONE, VARIAZIONE DIALETTALE

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1. Introduction

Variationist approaches to second language acquisition (SLA) have gained influence in recent years, in part due to their ability to offer quantitative analyses of the interlanguage system using statistical tools that are capable of examining the complex relationships between a wide range of linguistic and social variables (Bayley & Tarone, 2012). These studies are valuable to the field of SLA because they are able to take into account that the linguistic systems of second languages (L2s), like first languages (L1s), are (1) rule-governed, (2) undergo change, and (3) are impacted by social factors (Gudmestad, 2014, p. 81). First applications of the variationist paradigm to SLA (e.g. Adamson & Kovac, 1981; Dickerson, 1974; Ellis, 1987; Tarone, 1988; Young, 1991), later called Type 1 variation by Mougeon, Nadasdi, and Rehner (2004), focused on interlanguage alternations between native-like and non-native-like variants (using monolingual norms as the baseline), or between more than one non-native variant, such as a learner's use of **Do you ate the sandwich?* vs. *Did you drink the milk?* Studies in Type 2 variation, which emerged a few years later (e.g. Adamson & Regan, 1991; Bayley, 1996; Major, 2004), were concerned with the alternation of non-categorical structures according to native speaker (NS) patterns (sociolinguistic variation). Examples of this type of variation among learners of Spanish would include copula contrast, subject expression, or weakening of coda /s/.

The goal of many of these Type 2 studies is to measure the sociolinguistic competence of L2 speakers, or their knowledge of the sociocultural norms of language and of discourse, vis-a-vis the use of a sociolinguistic variable. This type of competence requires an understanding of the social context in which language is used: the roles of the participants, the information they share, and the functions of the interaction (Muniandy, Nair, Krishnan, Ahmad, & Noor, 2010). The very definition of the sociolinguistic variable, which was originally termed as two or more ways of saying the same thing (Labov, 1972) and later broadened to include two or more ways of expressing the same function, suggests that sociolinguistic competence involves not only the ability to use target-language patterns of variation, but also the competence to realize that the variants in question are mapping to the same variable (i.e. that *máθ*, *máh*, and *más* all mean the same thing). Despite the fact that sociolinguistic competence must involve the ability to comprehend the variable in question, thus far, nearly all of the sociolinguistic studies of SLA have measured how speakers *produce* variable forms. A handful of studies have explored how L2 speakers *perceive* sociolinguistic variants, but significantly more work in this area is necessary to understand how these speakers process multiple forms and create associations between variants. As such, the goal of the current study is two-fold: first, it seeks to determine through a multivariate analysis the factors constraining learner perception of a highly frequent variable form in Spanish: coda /s/-weakening; second, it suggests that sociolinguistic competence can and should be measured not only in terms of how learners produce variable forms but also how they perceive and process such forms.

In this study, /s/-weakening was chosen for several reasons. First, few topics in Spanish sociolinguistics have received as much attention as syllable-final /s/-weakening (i.e. Brown, 2008; Bybee, 2002; Erker & Otheguy, 2016; File-Muriel, 2007; Lafford, 1986; Lipski, 1985; 1999; Poplack, 1986; Terrell, 1978; 1979, among others). As such, there is plenty of information available as to the linguistic and social factors that constrain the production of the variable that can be used as a point of comparison in studies of perception. Secondly, due to its extensive social and geographic variability in the Spanish-speaking world, it is likely that L2 speakers will come in contact with the variable at some point during their acquisitional journey. Because of that likelihood, it is important to understand how learners acquire the sociolinguistic competence to map weakened forms to /s/ – how they come to understand, for example, that *máθ*, *máh*, and *más* all carry the same function. Third, coda /s/ carries significant morphological information in Spanish, increasing the necessity for learners to accurately interpret it. Fourth, whereas other sociolinguistic variables are quite salient and arguably easier for learners to notice (*tú/voseo*, copula contrast, Argentine *sheísmo*, and the use of θ in Spain), /s/-weakening can be characterized as a less salient variable that is both difficult for learners to comprehend (Trimble, 2011) and also requires a re-mapping of the L1 English phonological system which typically does not allow for aspiration or deletion of syllable-final sibilants, except for in the case of inflectional /s/ in some English dialects.

This study is based on data collected from a group of 14 young adults (all L1 speakers of English) from distinct parts of the United States who travel to Guayaquil, Ecuador to work as long-term volunteers for a humanitarian non-governmental organization (NGO) for a period of twelve months. It explores the volunteers' perception of /s/-weakening in a longitudinal manner, quantitatively measuring their ability to map [h] to /s/ via a perception task at six different intervals throughout their year in Ecuador. Data was

submitted for multivariate analysis to Rbrul (Johnson, 2009) to measure the relative strength of factors influencing the participants' ability to perceive [h] as a legitimate variant of /s/.

2. Background and motivation

2.1. Status of /h/ and /s/ in English and Spanish

Although perhaps best described as a sub-segmental gradient phenomenon (Erker, 2010), most research on Spanish /s/-weakening has used a tri-part labeling system – retention [s], aspiration [h], or deletion [Ø]– to distinguish between the innumerable phonetic manifestations of /s/ (Lafford, 1986). English has a phoneme /h/ (as in *house*) that is traditionally described as a voiceless glottal fricative, similar to the aspirated variant of /s/ in Spanish, [h]. However, although there are similarities between English /h/ and Spanish [h], the two phones differ in terms of the syllable position in which it occurs (and is contrastive) as well as the phonemes to which [h] is associated (Schmidt, 2011, pp. 19-20). In English, /h/ is contrastive in syllable-initial position (*house/mouse*, *hot/ought*), but is not found in coda position, while Spanish [h] is not contrastive and, with the exception of some dialects, appears in syllable-final position. Since glottal fricatives do not occur in coda position in English, it may be the case that L1 English speakers do not perceive the aspirated variant in Spanish, at least at the beginning stages of acquisition (Schmidt, 2011, p. 20). In Spanish, [h] is an allophone of /s/, but in English, [h] typically does not appear as a surface representation of the English phoneme /s/. As Schmidt (2011, p. 21) states, in order to perceive /s/-weakening, not only do L1 English L2 Spanish speakers “need to acquire the perception of a phonetically similar sound in a new phonetic context, [but] they must also come to recognize [h] as a legitimate variant of a different phonemic category, /s/”.

Figure 1 illustrates the variability of /s/-production within a single phrase extracted from an interview of a NS of coastal Ecuadorian Spanish. In this phrase, *las personas* ‘the people’, the first coda /s/ is weakened, visible by the shorter duration of the frication segment and lack of concentrated high frequency energy on the spectrogram. In *personas*, coda /s/ is retained, visible by the longer duration and concentrated high frequency frication. Thus, an L1 English - L2 Spanish speaker hearing this utterance would need to acquire the perception of [h] in a new context (syllable-final) while realizing that [h] pertains to /s/ instead of /h/.

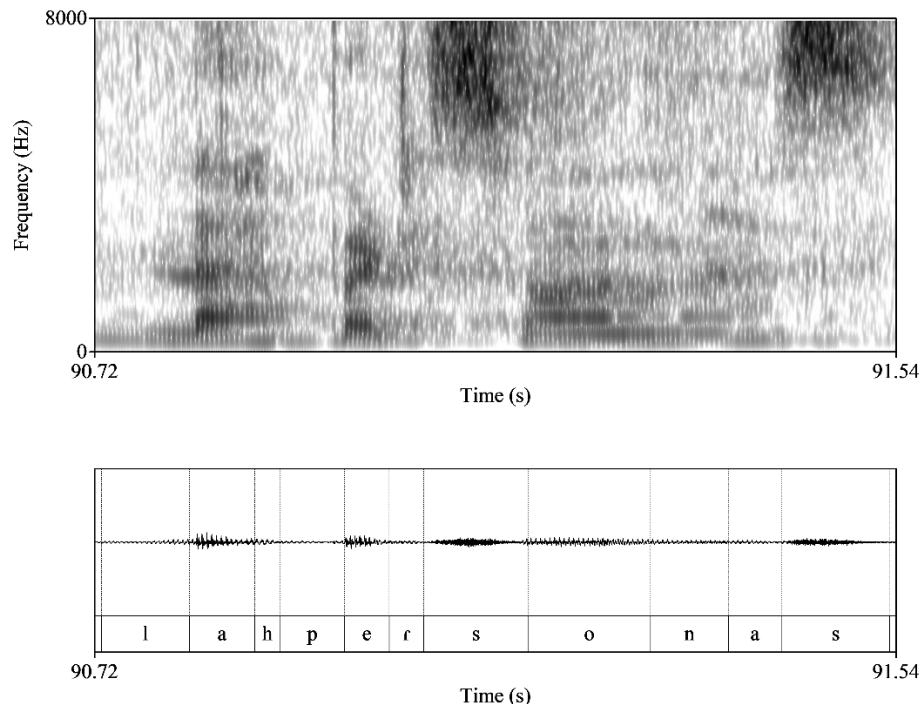


Figure 1. Coastal Ecuadorian NS producing *las personas* (the people)

2.2. Previous studies on the production of /s/-weakening

Although there has been very little research on /s/-weakening among L2s and HLLs, this topic has been studied prolifically among NSs. Most research has shown that the main linguistic factor that constrains /s/-lenition within a given speech community and speech style is following phonological context. According to Lipski (1999), at the first stage of weakening, /s/ is produced as the glottal fricative [h] before a consonant both within and between word boundaries (*las mesas* [lah mé.sas] ‘the tables’, *hasta* [áh.ta] ‘until’) but retains its sibilance and is produced as [s] phrase-finally and before vowels¹. In the second stage, syllable-final /s/-weakening extends to all syllable-final contexts, including phrase-final (*vamos* [bá.moh] ‘let’s go’), while retaining word-final prevocalic /s/ as [s] (*es así* [es a.sí] ‘that’s how it is’). In the third stage, weakening advances to include word-final prevocalic /s/, and in the fourth stage of /s/-lenition, all word-final sibilants are realized as [h], regardless of the nature of a following segment (p. 198). Lipski also hypothesizes that speakers that aspirate or delete in one of the latter contexts will also lenite in the former contexts. Large-scale empirical studies such as those of File-Muriel (2007) and Terrell (1978) on Colombian and Caribbean varieties of Spanish, respectively, as well as small-scale work on coastal Ecuadorian Spanish (Escalante, 2016) have shown phonological context to be a robust predictor of /s/-weakening, with pre-consonantal contexts generally favoring lenition more so than pre-vocalic and pre-pausal contexts.

A second linguistic factor that has been found to constrain /s/-weakening is lexical frequency. Exemplar theory and usage-based phonology typically claims that high-frequency lexical items undergo regular sound change at an accelerated rate compared to low-frequency words². Using data from Argentine and Cuban Spanish (Terrell, 1979), Bybee (2000) argued for a usage-based approach to /s/-lenition, suggesting that if usage affects stored representation and if twice as many tokens begin with a consonant than with a vowel, phonetic changes conditioned by a following consonant will also take place at a word-boundary, though at a slower rate than word internally where the environment does not alternate. Brown (2008) explored word-internal and word-final /s/ reduction in three dialects of Spanish (Cali, Colombia, Mérida, Venezuela, and San Juan, Puerto Rico) and found that high-frequency words significantly conditioned final /s/ reduction in dialects with lower rates of overall reduction (Cali, Colombia and Mérida, Venezuela), but not in dialects with higher rates of reduction (San Juan, Puerto Rico). File-Muriel (2009) has also shown frequency to be a significant predictor of weakening in Colombian Spanish as has Fox (2006) in several Latin American dialects. Other research, on the other hand, has called into question the degree to which frequency has been claimed to affect variation (Abramowicz, 2007; Bayley, 2014; Bayley, Greer, & Holland, 2017; Labov, 2010; Martínez-Sanz & van Herk, 2013; Tamminga, 2014). Bayley (2014) has shown that frequency has at most a minimal effect in cases of stable variation and claims that the “absence of consistent effects for frequency in the variables suggests that the role of frequency in language variation and change has been considerably overestimated.” In support of this line of research, lexical frequency was not found to be a significant predictor of /s/-weakening in a small pilot study of coastal Ecuadorian Spanish (Escalante, 2016).

A number of studies on coda /s/ have also found prosodic stress to influence lenition. Brown and Cacoullos (2003), Poplack (1980), and Terrell (1978) have all found higher rates of weakening in unstressed environments. In coastal Ecuadorian Spanish, stress was found to be a significant predictor of weakening in spectral terms (center of gravity [COG]) but not in temporal terms (frication duration)³. Like in previous research, unstressed syllables demonstrated a lower COG (mean = 1556hz) than stressed (mean = 1726hz) (Escalante, 2016).

Lastly, the number of syllables in a word has been found to influence lenition in a number of studies across several geographic regions. Lipski (1984), Barrutia and Terrell (1982), Cepeda (1995), Lafford (1989), and Terrell (1978) have all found evidence of higher degree of /s/-maintenance in monosyllabic words than polysyllabic words. In coastal Ecuadorian Spanish (Escalante, 2016), the same pattern was found, but only for COG; as the number of syllables increased, COG decreased by 118.003hz. The number of syllables was not found to be a significant predictor of weakening in temporal terms, however.

¹ This is typically considered a product of *sinalefa* (linking), or the tendency for prevocalic coda /s/ to be resyllabified to the onset of the following syllable.

² Although this is generally true, according to Bybee (2007), high frequency can also have a conserving effect. Bybee (2007, p. 29) uses the examples of low-frequency past tense verbs with a lax vowel such as *lept*, *wept*, and *dreamt* tend to be regularized to **leaped*, **weaped*, and **dreamed* more so than their high-frequency counterparts *slept*, *left* and *kept* (rarely regularized to **sleaped*, **leaved*, and **keeped*).

³ COG measures the frequency at which sonic energy is maximally concentrated (Erker, 2010). There is more evidence of /s/-weakening as measurements of COG and frication duration decrease.

Within Spanish-speaking communities, in addition to the linguistic constraints mentioned above, variation in the distribution of /s/ has also been explained in terms of varying sociolinguistic characteristics of the speakers, such as socioeconomic status and education level, age, gender, and whether the speaker resides in an urban or rural location (File-Muriel & Brown, 2011). Aspiration and deletion are generally considered markers of social class, with upper-class and more-educated speakers tending towards less weakening, while lower-socioeconomic class and less-educated speakers favor more lenition (Lafford, 1986; Terrell, 1981). The more advanced stages of /s/-weakening in a particular dialect are also typically found to a greater extent in the speech of males and speakers from lower socioeconomic levels, while females and speakers from higher socioeconomic levels tend to favor less-advanced stages or full sibilance (Dohotaru, 2004; Rufz-Sanchez, 2004). One notable exception to these patterns was found in the work of Carvalho (2006) who found that on the Uruguayan-Brazilian border, /s/-aspiration is found to be a prestige marker, rather than a stigmatized variant, used as a result of a desire to accommodate more closely to the speech of Montevideo.

2.3. Previous studies on the perception of /s/-weakening

Perceptual studies relating to Spanish coda /s/ are far more rare than production studies, both for NS as well as for L2 listeners. Regarding how NSs process /s/-weakening, Figueroa (2000) and Hammond (1978) found that NSs of Caribbean varieties were able to distinguish between word-internal /s/-elision and complete absence of /s/ (as in *pastilla* [pa.θ.tí.ja] ‘pill’ versus *patilla* [pa.ti.ja] ‘sideburn’), but were not able to distinguish between elided-/s/ and no /s/ in word-final position (as in *hagas* [á.ɣaθ] versus *haga* [á.ɣa]), highlighting the degree of difficulty that even NSs face when perceiving /s/-weakening in isolated words with little to no contextual clues.

A few studies have looked at the perception of NS /s/-weakening by L2 listeners, some focusing solely on /s/-weakening and others focusing on the comprehensibility of a specific dialect that contains /s/-weakening along with other sociolinguistic variables. Schmidt (2009) explored gains made in comprehension of Dominican Spanish among 11 adult learners over the course of a three-week stay in the Dominican Republic, measuring how L2s progressed in their comprehension of four local features: /s/-weakening, intervocalic /d/-weakening, lambdacism (variation between syllable-final liquids /r/ and /l/), and /n/-velarization. Participants did improve their global comprehension abilities over the course of the stay, yet deletion of coda /s/ and lambdacism was found to impede comprehension to a greater extent than did deletion of word-final /d/ or /n/-velarization, suggesting that different phonological features of Dominican Spanish have different effects on the comprehension of the dialect.

Studying the effect of phonetics training on dialect comprehension, Rasmussen & Zampini (2010) explored how L2 speakers improved their comprehension of Andalusian Spanish (a dialect characterized by /s/-weakening, among other features) with and without explicit training on the target dialect. The authors found significant rates of improvement in comprehension of weakened /s/ after exposure; however, the difference in improvement between the control group and the experimental group did not reach statistical significance, therefore not supporting the hypothesis that explicit instruction aids in the ability to comprehend /s/-weakening.

Schmidt (2011) examined how 47 NSs of Spanish from aspirating and non-aspirating dialects and 215 English-speaking learners of Spanish with varying experience with the target language (TL) identified and processed tokens of syllable-final, word-internal aspirated /s/. Specifically, she found that the L2 learners demonstrated development in the perception of the dialectal feature, with identification of aspiration as a variant of /s/ first emerging at the intermediate-low level. By the most advanced levels, L2 learners showed native-like patterns of perception of the aspirated variant. The location of study abroad experience was found to play a significant role in perception of the aspirated /s/, with greater acceptance of the aspirated variants as legitimate forms of Spanish /s/ among those learners with prior experience in /s/-weakening regions.

George (2014) investigated L1 English speakers’ perception of /s/-weakening in beginning, intermediate-low, and advanced Spanish courses in order to determine if and how L2 Spanish learners perceived /s/-weakening. Results indicated that learners of Spanish do perceive /s/-weakening, but the extent of this perception varies based on the level of the Spanish course, with advanced learners perceiving aspiration more than beginning learners. She also found that learners most often associated aspiration with nothing (i.e. processing pa[h]ta as *pata* rather than *pasta*).

Lastly, Bedinghaus (2015) studied the perception of /s/-weakening among students sojourning in Andalusia (an /s/-weakening region) and at-home learners, finding that abroad learners were more successful at perceiving weakened variants than their peers at home.

2.4. Heritage language learners and dialectal variation

Often the prototypical heritage language learner (HLL) is conceived as an individual whose parents are first-generation immigrants and NSs of the heritage language (HL). The HLL then grows up in an environment where the minority language is spoken in the home by both parents and the majority language (English, in the context of the United States) is used in public spaces and eventually becomes the dominant language of the HLL. As Potowski (2013, p. 405) explains, the primary distinguishing factor between L2s and HLLs of Spanish in the United States is that HLLs are exposed to Spanish starting at birth from their family members, while L2 speakers typically acquire the language later and in a classroom environment, while the primary differentiating factor between HLLs and “homeland” speakers (or NSs) is that HLLs “spend a portion of their prime language-learning years immersed in an English-speaking environment” (p. 405). She explains that HLLs generally receive input in Spanish in the home, sometimes exclusively, but sometimes combined with exposure to English until they enter preschool or kindergarten. Upon entering school, then, the amount of English input increases drastically, while Spanish typically remains confined to the domestic and community domains, resulting in HLLs typically not having “the same exposure to the wide variety of linguistic and social experiences that a homeland speaker [does], usually resulting in a different linguistic system” (p. 405). Yet despite these common traits, most scholars of HL linguistic systems agree that there is great heterogeneity among individuals categorized as HLLs. According to Potowski (2013), these individuals can vary along the following five dimensions, some of which overlap in different ways: historical (generation of immigration), linguistic (age of onset of bilingualism, domains of language use, and level of prestige of variety), educational (extent of formal education in Spanish), affective (learner identity), and cultural (family practices, maintenance, and use).

Compared to research on the adoption of variable features by L2 speakers, there is relatively little information regarding how HLLs encounter new dialects in immersion contexts. Unlike L2s, who enter an immersion zone as newcomers, HLLs who participate in immersion experiences in their ancestral country (or even region) of origin may already have some degree of familiarity with the language and culture of the host country due to their family background (Shively, 2016). Also unlike L2 learners, HLLs may have a personal connection to the host country or region and may choose that location in order to learn more about their cultural backgrounds or families (Moreno, 2009; Rubin, 2004; Shively, 2016; Van Der Meid, 2003). HLLs are more likely to begin their immersion experience with stronger linguistic and cultural knowledge than L2 learners as well as greater familiarity with using their HL outside of the formal classroom setting (Davidson & Lekic, 2013; Petrucci, 2007; Potowski, 2002; 2013).

However, it is suggested that HLLs may encounter an even more complex dilemma in their experience with a secondary dialect than L2 speakers. First, since HLLs often arrive to the immersion zone with an established home dialect, they may face conflicting desires to assert their identity as an HLL of a particular background—maintaining their home-dialect features—and becoming an active participant in the target culture and acquiring/accommodating to new features. Secondly, HLLs must also navigate the social ramifications of the use of new features. Since not all Spanish dialects are of equal prestige, depending on the background of the HLL, his/her home variety may be stigmatized in the immersion zone, causing him/her to potentially encounter linguistic discrimination (Moreno, 2009; Riegelhaupt & Carrasco, 2000). Thirdly, since HLLs from the same ancestral background as the immersion zone are often positioned as members of the host culture, they may be held to monolingual norms, assumed to have insider cultural knowledge, and expected to behave according to the cultural expectations of the host country. If they do not meet these expectations, there may be negative consequences such as judgements of social error more so than their L2 peers (Petrucci, 2007; Shively, 2016). Finally, in terms of perception, HLLs may have to re-map an established phonological system which may in some ways be less malleable than an L2 system. In the case of /s/-weakening, speakers from a maintaining dialect may have difficulty perceiving variants ranging from [h]-Ø as legitimate variants of /s/. To my knowledge, no research has systematically explored how HLLs perceive and process dialectal phonological variation in Spanish, though the work of Kim (2012; 2015), has explored other phonological features of HLL speech. Her research on the perception of VOT among HLLs and NSs of Spanish found that HLLs tended to perceive VOT contrasts in voiceless stops similarly to Spanish NSs, even though they did not produce the contrasts as NSs did (Kim, 2012). Kim (2015) investigated the perception of lexical stress in

Spanish among different generations of HLLs and suggests that speakers whose families have had a longer presence in the United States tend to pattern like NSs of English while those with a shorter presence pattern more similarly to NSs of Spanish.

2.5. Research questions

The above-mentioned studies have offered valuable information regarding the perception of /s/-weakening among L2s. The current study seeks to add to this foundation by exploring the perception of the variable in longitudinal terms at several intervals to understand the process of acquisition over time. It also considers /s/ at the four different phonological contexts rather than only in word-internal position as previous studies have done. Lastly, it includes HLLs in the participant pool and offers an analysis of the differences seen in their perception of /s/ as compared to that of L2 speakers. The study addresses the following research questions:

1. How do speakers of Spanish as an L2 and as a HL perceive weakened forms of /s/?
2. What is the role of phonological context, time-in-country, proficiency, and individual differences in their ability to perceive aspirated variants as legitimate variants of /s/?

3. Methods

3.1. Participants

As seen in Table 1, the participant group was comprised of 14 full-time volunteers (9 females, 5 males) who ranged in age from 22-26 years. All were recent college graduates from different parts of the United States with varying degrees of experience in international travel as well as in Spanish language proficiency. All had received some formal language instruction in Spanish, but that training varied from 2-10 years. Most had spent at least some time abroad in Spanish-speaking countries, with four having four or more months of experience in another country via study abroad (3 participants) or permanent residence (1 participant).

Three participants were considered HLLs: one participant was born in Quito, Ecuador (a widely /s/-maintaining dialect) and lived there until age nine at which time he immigrated to Sacramento, CA; one participant was half-Colombian (her mother is from the /s/-conserving Colombian highland region) and raised in New York; the third was unsure of her biological heritage because she was adopted, but she considers herself half-Mexican (the maternal side of her adoptive family is of Mexican descent) and she spoke some Spanish at home, mainly with her grandmother who was a monolingual Spanish speaker. The remaining eleven participants acquired Spanish mainly in the classroom environment. Based on their initial overall Versant Oral Proficiency test scores⁴ and their context of learning, participants were grouped into four proficiency levels: novice-mid/high, intermediate-low, intermediate-mid, and HLLs.

3.2. Setting

The participants' volunteer year began in August of 2015 and concluded in the same month of 2016. Upon arrival, the participants were split into two volunteer houses in two socioeconomically marginalized districts of Guayaquil. Participants worked in their communities in different educational and social work capacities during the day but their primary goal was to live in community, poverty, and solidarity alongside their neighbors. Because of the outward focus of the organization, participants spent the majority of their time outside with Spanish-speaking neighbors and co-workers. They returned to the volunteer houses in the evenings, where they typically spoke English, but also participated in neighborhood functions some evenings and nearly all weekends where they interacted with Ecuadorians nearly exclusively in Spanish.

⁴ The *Versant Spanish Test*, which is based on Levelt's (1989) model of speech production, uses spoken prompts in Spanish of NSs from a variety of Spanish-speaking countries to elicit oral responses from students. It has been tested for validity and correlates with other proficiency measures (Pearson, 2011). This test was chosen because it provides nearly instantaneous, objective, reliable results regarding students' abilities to speak and understand spoken Spanish.

Table 1
Participant background and language experience

	Age	Sex	Hometown	Experience studying Spanish	Experience in Spanish-speaking countries	Other	Versant score
<i>Novice-mid/high</i>							
Laura	26	F	Baltimore, MD	HS; 2-3 yrs. PS	None	Did not retain language learned from college classes due to lack of practice outside of classroom	21
Ethan	25	M	Harrisburg, PA	MS, HS; 2-3 yrs. PS	Spain: 7d; Ecuador: 18d*	-	24
Tim	25	M	Walpole, MA	HS; ≤ 1 yr. PS	Ecuador: 21d*	-	29
<i>Intermediate-low</i>							
Nicole	22	F	Canfield, OH	ES; ≤ 1 yr. PS	Dom. Rep.: 10d; Ecuador: 10d	-	37
Cherise	22	F	El Paso, TX	MS, HS; ≤ 1 yr. PS	None	Grew up near U.S.-Mexico border; Spanish-speaking boyfriend	39
Jack	22	M	Buffalo, NY	ES; 2-3 yrs. PS	Spain: 4m	Has learned most of his Spanish through a study abroad/homestay in Spain	41
<i>Intermediate-mid</i>							
Grace	22	F	Upper Darby, PA	HS; ≥ 3 yrs. PS	Ecuador: 10d	Worked in outreach to Hispanic communities in Philadelphia	49
Rachel	22	F	Los Angeles, CA	MS, HS	Mexico: 10d; Costa Rica: 7d; Spain: 5d	-	46
Katie	22	F	Arlington, VA	ES, MS, HS; ≥ 4 yrs. PS	Honduras: 3w; Spain: 4m	-	46
Daniel	22	M	Iowa City, IA	HS; ≥ 4 yrs. PS	Spain: 1m; Guatemala: 10d	-	49
Sarah	25	F	Cleveland, OH	ES, MS, HS; ≥ 4 yrs. PS	El Salvador: 16d; Ecuador: 8d; Spain: 6w; Peru: 10d	Has close friends who come to work in the U.S. each year from Mexico	50
<i>Heritage language learners</i>							
Bianca	22	F	Los Angeles, CA	HS; ≤ 1 yr. PS	Mexico: 21d*; El Salvador: 6d	Heritage speaker; adoptive family speaks some Spanish at home; grandmother who only spoke Spanish lived with family for ~10 years	58
Amalia	22	F	Manhattan, NY	HS; ≤ 1 yr. PS	Spain: 5m	Heritage speaker; mother (Colombian) spoke to her only in Spanish at home; also studied abroad in Spain	68
Gustavo	23	M	Quito, Ecuador Sacramento, CA	ES, MS, HS; ≤ 1 yr. PS	Ecuador: 9y; El Salvador: 4.5m; Dom. Rep.: 10d; Mexico: 10d; Nicaragua: 10d; Guatemala: 20d	Heritage speaker, born and raised in Quito, Ecuador for first 9 years; immigrated to California but spent summers in Ecuador; mother is a NS of English	70

Note. *non-consecutive. ES=Elementary school; MS=middle school; HS=high school; PS=post-secondary.

3.3. Instrument

The perception task analyzed how coda-aspirated variants in four phonological positions (V/s/C, V/s/#C, V/s/#V, and V/s/##) were perceived and associated with different Spanish phonemes. Following and expanding upon the work of Schmidt (2011), a NS of an aspirating variety of Spanish (Cuban)⁵ was recorded producing aspirated /s/ in 56 nonce word pairs embedded in a carrier phrase (as well as 36 distractor pairs) in order to simulate aspiration occurring in natural speech. Nonce words were chosen in place of real words to eliminate the possibility for participants to use their lexical knowledge to determine the status of /s/ and to avoid potential frequency effects. As Schmidt (2011, p. 177) points out, “Only through measures of perception in which listeners must rely solely on information in the speech signal (e.g., through the use of nonce words) can the perceptual linguistic system of the listener be accessed”. The nonce word carriers for the target stimuli (aspirated variants of coda /s/) were created based on the phonotactic patterns of word-internal coda sibilants in Spanish. Like Schmidt (2011), the initial consonant of the target stimuli could be any legal Spanish word-initial single consonant: voiced stop, voiceless stop, liquid, nasal, affricate, or fricative; however, initial /x/ was avoided in order to remove the possibility of syllables with two post-palatal fricatives. File-Muriel (2007) found that in word-internal /sC/ sequences, coda /s/ is most frequently followed by a voiceless stop in Spanish. In order to reflect this pattern, for the two /s/C sequences – word-internal and word-final preconsonantal – only voiceless stops were included as possible consonants among the target stimuli. All nonce words were disyllabic or trisyllabic, composed of either CV or CVC syllables, and carried stress on the penultimate in order to control for stress.

Each case of aspiration recorded by the NS was confirmed audibly and visually on Praat (Boersma & Weenick, 2017) by the absence of high frequency frication on the spectrogram and aperiodicity in the wave form. After recording, the nonce word pairs were extracted from the carrier phrase to eliminate phrasal level intonational patterns and randomized alongside the distractor pairs (see Table 2 for a list of target stimuli).

Table 2

Target stimuli for perception task by following phonological context

V/s/C	V/s/#C	V/s/#V	V/s/##
baspe mergo	defos cato	nedos olmeda	leste dicas
gasco plache	mincos pacho	catus artoso	bispa fepas
lespo dacas	pales queba	fincos ibidas	dasca delos
lisco lepa	nemos paluna	bonas estano	desto catís
mesque demo	bames pele	noros utino	fespe chercos
nista cata	mebas teno	fapus anoda	nosca poles
sosca nergo	fapes tinco	peles egana	despa docas
disto pame	bafos pile	nechos higulo	fiste tepos
nasta deca	nelos tabilo	bafos homulo	gaspo deros
bisca mepa	fapis quinsulo	piles ulana	mispo catos
pispe deno	boles terbo	febas alcana	nisque fergos
tosque cate	pules cudulos	tebos upicha	gosco nepos
cospa lergo	neros carpa	nelos efarno	pisque ducas
desca pafo	fincos porona	rincos iluso	chesto ponas

To complete the perception task, participants listened to the series of nonce word pairs via a sound file played through an Apple iPhone with a head set. Each nonce word pair was played twice. Because /s/ appears in the first word of the pair for the V/s/C, V/s/#C, and V/s/#V contexts, but in the second word for the V/s/## contexts, sections 1-3 of the task asked participants to identify the first word while section 4 ask them to identify the second. Participants selected the nonce word that they heard from the following options:

⁵ The researcher first recorded two different NSs of coastal Ecuadorian Spanish producing the target stimuli with the intention of matching the dialect of stimuli to the input dialect of the participants. However, producing nonce words with intentional aspiration was extremely difficult for these NSs and many words were produced with irregularities, both in the /s/ segment and in others. This may have been a result of /s/-weakening not being as widespread in coastal Ecuador as in other regions of the Spanish-speaking world as well as the variable being below the consciousness of many NSs of this variety (Escalante, 2016). Due to the irregularities, the stimuli were not considered to be reliable and therefore an educated speaker of a Cuban dialect, who was familiar with intentionally controlling /s/ through aspiration and maintenance, was asked to produce the stimuli. After careful examination of the spectrograms of NSs of coastal Ecuadorian Spanish and of the stimuli produced by the Cuban speaker, it is the opinion of the researcher that the process of aspiration is similar in temporal and spectral terms.

(1) coda 's'; (2) no coda 's'; (3) coda 's' plus an interchanging of two phonetically and perceptually similar sounds, represented by their graphemes p-b, t-d, c/qu-g, r-l, m-n, word-initial s-f; and (4) no coda 's' plus an interchanging of two phonetically and perceptually similar sounds, represented by their graphemes p-b, t-d, c/qu-g, r-l, m-n, word-initial s-f. A fifth option, *unsure*, was also provided. For example, for stimulus *baspe*, listeners heard [báh.pe] and choose between *baspe*, *bape*, *paspe*, *pape*, and *unsure*. The perception task was administered for the first time one week prior to departure (interval 0) and then at five intervals in-country, each 8-10 weeks apart. This interval schedule was chosen in order to pinpoint if there was a certain window during the year of immersion where the greatest gains in perception were more likely to be seen, or if the process was more linear in nature, with participants showing improvement over time.

3.4. Coding and analysis

Because the goal of the study was to measure how participants perceived coda /s/ and not necessarily how they perceived other consonants, perception of /s/ was coded as a binary variable: perceived or not perceived. If a participant chose the option with coda 's' (*baspe*) or 's' with one incorrect sound (*paspe*), it was coded as perceived. If the participant chose one of the other three options (*bape*, *pape*, or *unsure*), the token was coded as not perceived. The dependent variables were then coded for the factors seen in Table 3.

Table 3

Factor group and factors

Following phonological context

Word-internal preconsonantal
Word-final preconsonantal
Word-final prevocalic
Phrase final

Exposure⁶

Pre-arrival
Post-arrival

Proficiency

Novice-mid/high
Intermediate-low
Intermediate-mid
HLL

Individual (random)

Participants 1-14

A total of 4,381 tokens were collected from the perception task which were then submitted for multivariate analysis using Rbrul (Johnson, 2009), a specialized application of logistic regression for sociolinguistic research that runs on R (R Core Team, 2013) and that allows the researcher to include continuous predictors such as exposure time and random effects such as individual⁷. Rbrul results can be interpreted in a similar fashion to data of Goldvarb (Sankoff, Tagliamonte, & Smith, 2012). A centered factor weight between 0.0 and 0.5 indicates that the factor disfavors use of the variant that has been selected as the application value, with weights closer to 0 indicating a stronger disfavoring effect; a centered factor weight between 0.5 and 1.0 indicates that the factor favors use of the variant selected as the application value, with weights closer to 1 indicating a stronger favoring effect. Rbrul also provides log odds, the natural logarithm for the odds of each factor, percentages, and numbers of tokens for each individual favor. The analysis provides significance levels of each individual factor group through a step-up, step-down procedure, excluding from the model those factor groups that fail to reach significance (Bayley & Holland, 2014, p. 394).

⁶ Exposure was first run as a continuous factor, then as a fixed factor, then as a binary variable in an attempt to find the statistical model with the strongest explanatory effect. This is explained in more depth in the results section.

⁷ For further information regarding logistic regression analyses for sociolinguistic research, see Bayley (2013).

4. Results

The goal of the multivariate analysis was to assess the linguistic and extralinguistic factors influencing participants' ability to consider [h] a legitimate variant of /s/. Of the four factors examined (phonological context, interval in-country, individual [random variable], and proficiency level), all factors were determined to be significant predictors except for proficiency level. In a secondary analysis that removed HLLs, proficiency level was deemed a significant factor group. The results are provided in Table 4.

Table 4
Positive identification of /s/-weakening by factor group

	N tokens	% identified as [s]	Log odds	Centered factor weight
Phonological context				
/s/C	1153	0.629	1.526	0.821
/s/#C	1153	0.382	0.247	0.561
/s/##	999	0.270	-0.376	0.407
/s/#V	1076	0.135	-1.396	0.198
Exposure				
Pre-arrival	735	0.178	-0.753	0.32
Post-arrival	3646	0.398	0.753	0.68
Participant				
Gustavo (HLL-Ecua)	321	0.695	1.694	0.866
Sarah (L2 int-high)	319	0.596	1.286	0.789
Daniel (L2 int-high)	318	0.503	0.853	0.699
Grace (L2 int-high)	320	0.466	0.592	0.654
Rachel (L2 int-high)	317	0.457	0.514	0.648
Katie (L2 int-high)	313	0.351	0.053	0.513
Nicole (L2 int-low)	315	0.349	0.051	0.511
Ethan (L2 nov.)	316	0.329	-0.029	0.479
Jack (L2 int-low)	317	0.297	-0.373	0.431
Laura (L2 nov.)	263	0.274	-0.39	0.409
Cherise (L2 int-low)	316	0.266	-0.403	0.386
Amalia (HLL-Col)	317	0.192	-0.774	0.275
Bianca (HLL-Mex)	314	0.175	-1.056	0.250
Tim (L2 nov.)	315	0.076	-1.957	0.109
Proficiency*				
L2 Novice	894	0.224	n/s	n/s
L2 Intermediate-low	948	0.304	n/s	n/s
L2 Intermediate-high	1587	0.475	n/s	n/s
Heritage	952	0.356	n/s	n/s

Note. Centered input probability: 0.2. Log likelihood: -2157.196. Phonological context: $p=3.49e-170$. Exposure: $p=7.13e-43$. Participant: random, not tested. Proficiency: $p>0.05$. *Factor group insignificant at 0.05 level.

4.1. Phonological context

Results suggest that phonological context plays an important role in the ability to map [h] to /s/. Participants identified aspiration as /s/ most readily when it was followed by a consonant; within the two preconsonantal contexts, [h] was most often mapped to /s/ when it appeared in word-internal position (69.2%) as compared to word-final (38.2%). Participants were less successful at perceiving an aspirated /s/ when it appeared in phrase-final position (27%) or word-final prevocalic position (13.5%). The centered factor weights of the statistical analysis mirror these findings, with the two preconsonantal contexts favoring positive identification of /s/ (0.821 for word-internal and 0.561 for word-final), prepausal /s/ slightly disfavoring identification (0.407), and prevocalic contexts strongly disfavoring it (0.198).

Not only was it easier for participants to perceive /s/ in the two preconsonantal contexts, but it was also where the most growth occurred between pre- and post-arrival rates (see Table 5). Pre-arrival, participants were relatively poor at perceiving /s/ across all phonological contexts, with perception rates clustered more closely to the mean ($SD=9.798$). However, over time there was significantly greater

improvement in the two preconsonantal contexts as compared to the prevocalic and prepausal contexts, creating wider differences between the four factors ($SD=23.757$).

Table 5
Perception rates by phonological context pre- and post-arrival

Phonological context	Pre-arrival perception rate	Post-arrival perception rate	Increase
/s/C	23.8%	70.7%	46.9%
/s/#C	20.2%	41.9%	21.7%
/s/##	23.8%	27.7%	3.9%
/s/#V	3.3%	15.5%	12.2%

Similar patterns emerge when examining cross-tabulations of individual performance over time for each phonological context (see Figures 2-5). As seen in Figure 2, for the /s/C context, there are large gaps between the pre- and post-arrival lines, indicating the greatest improvement in word-internal position, albeit not among all individuals. For the two outliers, Gustavo and Tim—the highest and lowest performers—there was almost no improvement between pre- and post-arrival. Figure 3 indicates that for the /s/#C context, there is also significant improvement for most participants, though less so than for the word-internal context and excluding the three lowest-performing individuals (Tim, Bianca, and Amalia) and the highest-performing individual (Gustavo). As seen in Figure 4, for the third context, prepausal /s/, there is largely static performance between pre- and post-arrival for all individuals except for the highest-performing individual (Gustavo). This indicates that exposure to /s/-weakening dialects does not necessarily lead to increased comprehension in all phonological contexts. Lastly, Figure 5 illustrates that the prevocalic context was the most difficult context in which to perceive aspirated /s/ pre-arrival, but that there was some improvement after exposure. This improvement, however, was visible mainly among the top half of the perceivers.

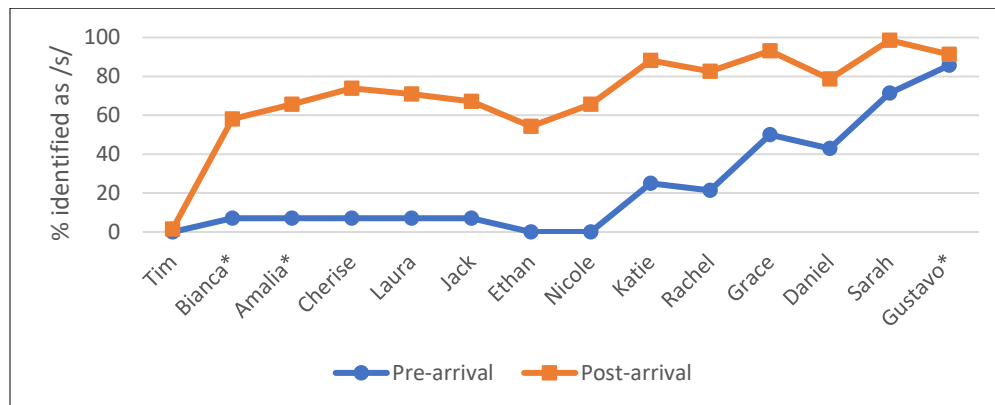


Figure 2. Percentage of positive identification of weakened /s/ by participant: /s/C context (*=HLL)

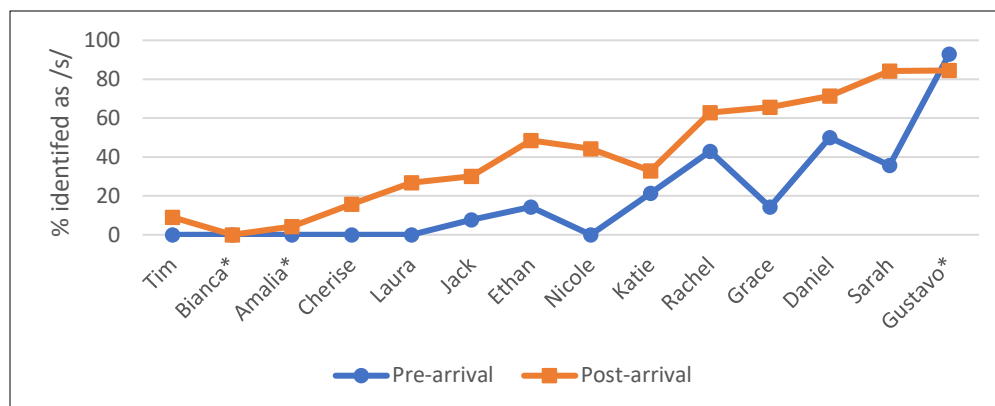


Figure 3. Percentage of positive identification of weakened /s/ by participant: /s/#C context (*=HLL)

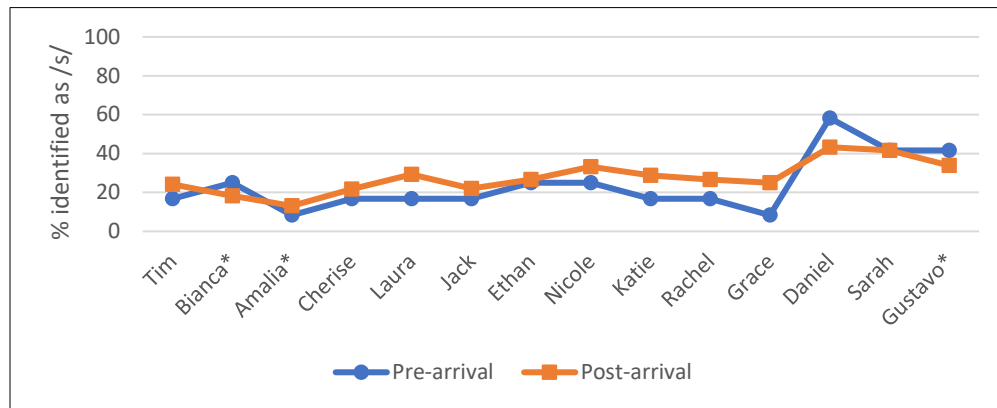


Figure 4. Percentage of positive identification of weakened /s/ by participant: /s## context (*=HLL)

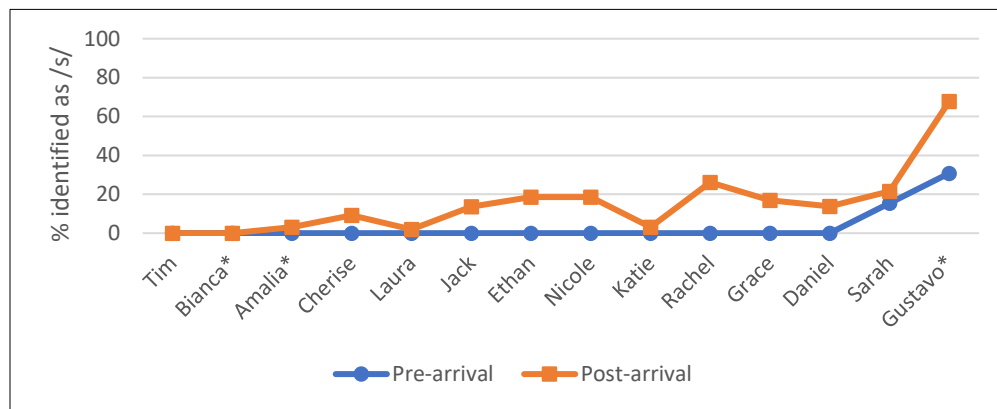


Figure 5. Percentage of positive identification of weakened /s/ by participant: /s#V context (*=HLL)

4.2. Exposure

In general, participants made significant gains in their ability to perceive weakened forms of /s/ after exposure to the variable in Ecuador. Before arriving (interval 0), they were able to successfully map [h] to /s/ at a rate of 17.8% but by the first interval (roughly two months into their stay), their rate had increased to 39.6%. Although it was hypothesized that participants would continue to make gains in their ability to perceive weakened /s/, after interval 1, perception largely leveled off. At interval 2, there was a slight increase to 40.6%, but after that, each successive interval witnessed fairly steady perception rates, concluding at 38.9% at the final interval. Between intervals 1 to 5, the overall rate of perception did not change more than 1.7% (see Table 6).

Table 6
Perception of /s/-weakening by interval in-country

	Interval in-country					
	0	1	2	3	4	5
Percentage identified	17.8	39.6	40.6	39.4	40.4	38.9
As continuous factor (Log odds)			+1	0.096		
As fixed effect (Centered factor weight)	0.222	0.552	0.573	0.560	0.575	0.553
Binary variable (Centered factor weight)	0.32			0.68		

Note: As fixed effect: Log likelihood= -2156.724. As binary variable: Log likelihood= -2157.196.

Because it was hypothesized that participants would continue to improve in their ability to perceive and process /s/-weakening over time, the statistical analysis considered time in-country first as a continuous variable. However, the results of this analysis (+1 log odds=0.096) did not adequately reflect that there was not in fact a constant shift over time but rather one main jump followed by relative stability. To improve upon the model, next an analysis was run considering interval in-country as a fixed effect, with each interval representing a factor within the group. Although this analysis was an improvement over the continuous one – with centered factor weights illustrating that interval 0 disfavors identification of /s/ whereas each of the remaining intervals are largely neutral with a slight preference toward positive identification – there was no evidence to suggest that perception varied enough between intervals 1-5 to necessitate a separation of those factors. As such, it was decided that in order to improve the model further, time in-country would be considered a binary variable: pre-arrival and post-arrival. This analysis was statistically as reliable as the fixed factor analysis⁸, had fewer degrees of freedom ($df=3$), and more accurately represented the data, illustrating through the centered factor weights that pre-arrival disfavored identification of [h] as /s/ (0.32) whereas post-arrival favored it (0.68).

4.3. Individual

In addition to following phonological context and time in-country, individual as a random effect was also a significant predictor of the ability to accurately perceive /s/-weakening. Perception varied considerably between the individuals who most- and least- accurately identified /s/, with the strongest individual perceiving aspiration at a rate of 69.5% and the weakest at 7.6% (see Figure 6). Centered factor weights ranged from 0.866 to 0.109, with the median weight nearly neutral at 0.495. Data regarding years of Spanish study and naturalistic exposure to the language through travel and contact with NSs is included in the report of individual performance.

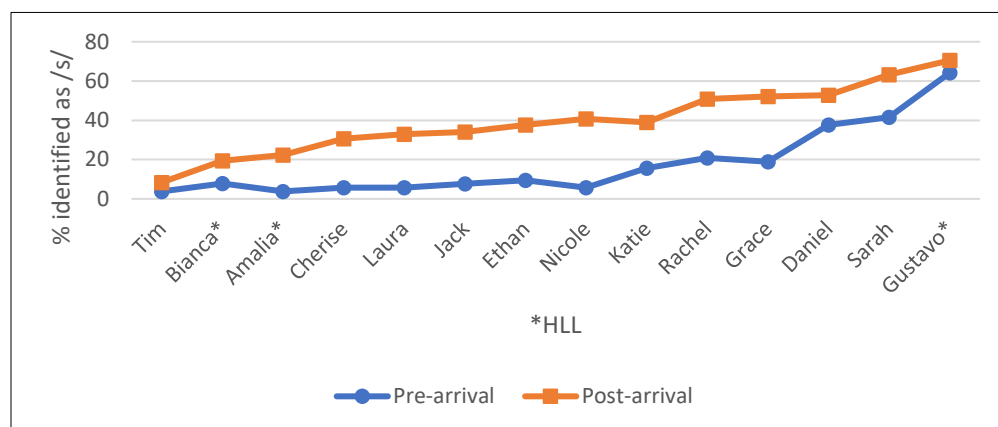


Figure 6. Percentage of positive identification of weakened /s/ by individual: pre- and post-arrival

Seven participants had positive centered factor weights, meaning that they were more likely to identify aspirated variants as /s/ (see Table 1 for details regarding participant background information). Gustavo, the HLL of highland Ecuadorian descent (largely an /s/-conserving region), was the individual with the greatest overall rate of identification of /s/ (centered factor weight=0.866) as well as the individual with the highest Versant Oral Proficiency Score (70) of the participant pool. Gustavo grew up in Quito, Ecuador for the majority of his childhood and at age 9 moved to Sacramento, CA with his mother where he was mostly exposed to Mexican Spanish. In addition to learning Spanish in a naturalistic environment as a child in Ecuador, Gustavo also studied the language once he moved to Sacramento in elementary, middle, and high school as well as one year in college and had exposure to both /s/-weakening and /s/-maintaining dialects

⁸ As explained in Bayley (2013), goodness of fit is measured by comparing the log likelihoods of the models, with those closer to zero being better fits than those further from zero. In this case, the difference in log likelihoods was 0.472 which is not statistically significant, suggesting that the binary model is as reliable as the fixed-factor model but with greater explanatory power because it more accurately reflects that there was only one main change in perception scores.

through immersion trips to El Salvador, the Dominican Republic, Nicaragua, Mexico, and Guatemala. After Gustavo, the next five individuals with the highest perception rates (Sarah, Daniel, Grace, Rachel, and Katie), which ranged from 59.6% to 35.1%, were also the top five most proficient L2 speakers according to their Versant scores. All of these intermediate-mid individuals had studied Spanish for three to four years in high school and for four years in college (except for Rachel) prior to the volunteer experience and had spent significant time with NSs of Spanish prior to arrival, either through immersion programs, civic engagement projects in Latino communities in the United States, and/or friendships with local NSs of Spanish. The last individual to have a slightly positive centered factor weight (0.511) was Nicole with a rate of positive identification of aspiration of 34.9%.

The remaining seven individuals had centered factor weights between 0 and 0.5, meaning that they favored identification of [h] as Ø. Their rates of perception ranged from 32.9% to 7.6%. With the exception of the two heritage speakers (Amalia and Bianca), these individuals had fewer years of Spanish instruction, lower proficiency levels, somewhat less experience abroad, and reported less contact with NSs than the seven most accurate perceivers. The seven lower-performers reported between one to three years of Spanish instruction at the undergraduate level but experience abroad varied significantly; Cherise and Laura reported none at all, Bianca, Ethan, and Tim participated in short-term immersion experiences to /s/-weakening regions, Jack and Amalia spent one semester abroad in Spain, and Amalia and Bianca spent time as children visiting family members in Colombia and Mexico, respectively, in addition to speaking Spanish at home.

4.4. Proficiency

When the entire participant pool was included in the analysis, the factor group of proficiency level was not found to be a significant predictor of positive identification of /s/. However, after analyzing results at the individual level, it was clear that the three HLLs did not exhibit similar patterns of perception; on one hand, Gustavo perceived aspiration at the highest rate (69.5%) of all participants while Amalia and Bianca perceived only 19.2 and 17.5% of forms, respectively, the second- and third-lowest rates of the entire group. Due to this lack of intra-group cohesion, a secondary analysis was run with the three HLLs removed. In this analysis of only L2 speakers, proficiency level was found to be a significant predictor, with intermediate-high speakers favoring higher levels of accuracy (centered factor weight=0.697), intermediate-low speakers nearly neutral with a slight favoring of inaccuracy (0.427), and novice speakers favoring inaccuracy (0.327). The results are presented in Table 7.

Table 7
Rates of perception of /s/-weakening by proficiency level (L2 speakers only)

Proficiency	N tokens	% identified as [s]	Log odds	Centered factor weight
Intermediate-high	1587	0.475	0.833	0.697
Intermediate-low	948	0.304	-0.110	0.472
Novice	894	0.224	-0.723	0.327

Note: $p=0.00768$. Centered input probability: 0.17. Log likelihood: -1727.426.

Taking into account proficiency level and time in-country, we see that the novice and intermediate-low groups arrived with similarly weak abilities to perceive coda aspiration, whereas the intermediate-high group arrived with significantly higher scores. Over time, the intermediate-low group made the largest strides in perception of /s/ (improving their scores by 28%), followed by the intermediate-high group (24.6%) and lastly by the novice group (19.5%). These results are presented in Table 8.

Table 8
Rates of perception of /s/-weakening by time in-country and proficiency level (L2s only)

Proficiency	Pre-arrival rate (%)	Post-arrival rate (%)	Improvement (%)
Intermediate-high	27	51.6	24.6
Intermediate-low	6.4	35.1	28.7
Novice	6.3	25.8	19.5

5. Discussion

Results of the multivariate analysis suggest that learners' ability to map aspirated variants to /s/ varies according to phonological context of the /s/ in question, learner exposure to the variable, individual learner differences, and for L2 speakers, proficiency level. Each of these factors are discussed in the following sections.

5.1. *Phonological context*

The results of the statistical analysis suggest that aspiration in preconsonantal contexts is easier to perceive than in prevocalic or prepausal contexts. Additionally, there was greater improvement over time in the two preconsonantal contexts than in the prevocalic or prepausal contexts, suggesting that increased exposure does not lead to improvement in the ability to perceive aspiration in all phonological contexts equally. These results are congruent to previous research (Figueroa, 2000; Hammond, 1978) which has also suggested that /s/-weakening is easier to perceive in preconsonantal contexts, and very difficult to perceive even for NSs when presented in isolated words with little to no contextual clues.

The relative difficulty that listeners face in perceiving weakened /s/ in prevocalic or prepausal positions as compared to preconsonantal may be attributed to a variety of factors. First, it may be a result of residing in a more open acoustic space. Whereas a following consonant creates an occlusion behind the weakened /s/—leaving a space-holder of sorts which signals to the listener that there is something that belongs there—when /s/ is followed by a pause or vowel, the weakened sound experiences gestural overlap with the following open vocalic space (in the case of vowels) or the following silence (in the case of pauses). These more open acoustic spaces may make it more difficult for the listener to perceive when weakened forms begin and end. Secondly, listeners may pick up on enhanced acoustic cues available in the word-internal context due to increased syllable duration. Because the stimuli set was designed to replicate the most common /s/-patterns in Spanish, word-internal preconsonantal [h] always occurs in the coda of a stressed syllable, while word-final [h] always occurs in the coda of an unstressed syllable. Because stress tends to lengthen Spanish syllables and the segments they contain (Ortega-Llebaria & Prieto, 2007), listeners may be able to perceive the aspirated stimuli in stressed syllables better due to the longer cues to glottal frication that they hear as compared to those in the shorter, unstressed syllables. Finally, it is possible that other cues might have aided listeners in perceiving preconsonantal [h] that are not possible in prepausal or prevocalic contexts, such as compensatory lengthening of the following onset consonant (Hayes, 1989) or longer VOT for voiceless stops—a phenomenon seen in Andalusian Spanish (Gerfen, 2002; Parrell, 2011; Torreira, 2006; 2007, 2012). In that variety of Spanish, which is characterized by widespread /s/-weakening, the compensatory lengthening of the dental stop combines with a change in the glottal gesture with respect to stop contact. This timing change increases the VOT of the stop, producing a moment of voiceless post-aspiration in the acoustic signal (Bradley, 2014, p. 346). Although no evidence of such post-aspiration was found in the stimuli, listeners may still display sensitivities to compensatory lengthening or VOT changes in following consonants that are simply not possible in prevocalic or prepausal contexts.

5.2. *Exposure*

Exposure was found to significantly constrain the variable, with pre-arrival scores unsurprisingly lower than post-arrival scores; however, the learners' ability to consider [h] as a legitimate variant of /s/ did not progress in a linear fashion throughout their year in-country. Instead, growth was clustered between intervals 0-1 and then remained relatively static for the remainder of the year. Of the few studies that have investigated the perception of weakened /s/ among language learners, most are cross-sectional in nature (George, 2014; Schmidt, 2011), which eliminates the possibility to measure individual gains over time. However, the two studies that have explored /s/-weakening perception longitudinally (Rasmussen & Zampini, 2010; Schmidt, 2009) considered only two time points: pre-arrival and post-departure of short-term study abroad programs (6 weeks and 3 weeks, respectively). Although they both found that time spent abroad in an /s/-weakening region facilitated an increased ability to perceive the variable, their methodology did not allow for the tracking of /s/ perception during participants' time in-country. As such, it is unclear if they would have found similar patterns of initial gains followed by stability.

One possible reason as to why participants in the current study made the greatest gains during the first 8-10 weeks but then remained relatively static throughout the rest of the year may be attributed to general tendencies in perceptual learning. In particular, research has suggested that "the bulk of perceptual

learning may actually take place fairly early in late-onset SLA” (Best & Tyler, 2007, p. 21). But just how early is “fairly early”? According to Flege & Liu (2001) and Jia, Strange, Wu, Collado, & Guan (2006), significant L2 perceptual learning has been observed in late learners after as little as 6-12 months of immersion in the TL, as compared to those with 0-6 months of experience, but that very little perceptual benefit seems to accrue from additional experience past that initial period for most late learners. Additionally, no significant differences have been found between SLA adults with 6-12 months of experience and those with 1.5 years or more (Aoyama, Flege, Guion, Akahane-Yamada, & Yamada, 2004; Jia et al., 2006; Tsukada et al., 2005). These findings in some ways support the results seen in the current study, as they suggest that gains in perception are seen relatively early in SLA learning. However, in the current study, the bulk of improvement is witnessed well before the 6-month mark, whereas in previous studies, the perceptual benefit was greatest between months 6-12. Best and Tyler (2007, p. 32) explain that when assessing changes in speech perception over learner development, “the passage of time is likely serving as a surrogate for the real underlying sources of influence”: the listener’s development in recognizing the structural and phonetic properties of their L1 and L2, along with “other individual and environmental factors that co-vary with their language development”. As such, further research on L2 perception in general and the perception of /s/-weakening in particular is needed to better understand what those individual and environmental factors may be that are influencing the processes of phonological re-mapping of /s/ categories.

5.3. Individual

To summarize the tendencies of the individuals with the highest perception scores, common among these top six /s/-perceivers were high proficiency ratings and reported interaction with NSs of the TL for an extended period of time prior to the volunteer year either through living abroad, study abroad, or contact with immigrant communities. For all of the top six perceivers except for Rachel, additional commonalities were more than two years of Spanish instruction at the undergraduate level and experiences of two weeks or more with /s/-weakening dialects of Spanish prior to the volunteer year either through naturalistic exposure, study abroad, and/or immersion experiences. Lower-scoring individuals tended to have lower proficiency levels, less exposure to Spanish through instruction, and less intense contact with NSs with the exception of the two female HLLs. As such, the results of this factor group align in some ways with those of previous studies (Rasmussen & Zampini, 2010; Schmidt, 2011; Trimble, 2011), which have suggested that the ability to perceive weakened /s/ are generally marked by language proficiency and study abroad participation and/or contact in the TL outside of class, especially in /s/-weakening regions.

The results of the lower-scoring individuals, however, are problematic for the conclusions reached in previous studies. Most important is that in previous studies, exposure to /s/-weakening dialects was linked to the ability to map [h] to /s/, whereas in this study, exposure to the variable was not enough to guarantee such mapping. Although it is true that the pre-arrival perception scores were higher for those with more extensive previous contact with NSs⁹, once in Ecuador, the playing field was leveled; all participants, no matter their previous language experience, were exposed to /s/-weakening on a daily basis via interaction with locals at job sites, conversations with neighbors/community members, and the completion of everyday tasks such as buying groceries and navigating local transportation systems. Despite this exposure, several individuals hardly improved at all over time (Tim, Bianca, Amalia), suggesting that exposure alone is not sufficient to acquire the ability to perceive /s/-weakening. Additionally, the results do not align in terms of increased proficiency favoring improved perception; the two female HLLs, Amalia and Bianca, had the second- and third- highest proficiency scores of the participant pool but had the second- and third- lowest rates of perception.

⁹ An important exception to this was Jack, who spent one semester in Sevilla, Spain. This individual was ninth out of 14 in perception scores, even though he had spent the most time in an /s/-weakening region (pre-arrival) of any volunteer except for Gustavo. Although this individual expressed having a close relationship with his host family who communicated with him entirely in Spanish, the experience did not translate into the ability to perceive weakened forms of /s/ without any contextual clues, as evidenced by the pre-arrival results. It also did not seem to allow him to improve at a rate significantly greater than his peers. Schmidt (2011) found similar results among her participants whose exposure to /s/-weakening dialects came from Western Andalusia; she found that only four of the individuals who had experience abroad solely in /s/-weakening regions were not successful in identifying aspiration as /s/, but of those four, three had study abroad in Andalusia. Because that region is characterized by a different realization of weakened-/s/, a longer voice onset time (postaspiration) of the following voiceless obstruent, as in [mó.k^ha] (Torreira 2006), she suggests that exposure to any form of syllable-final /s/-weakening may not transfer to the association of all other weakened variants with /s/, at least for some learners.

Based on these results, I argue that exposure to NSs of Spanish and to /s/-weakening varieties in particular is still an influencing factor in the ability to accurately perceive the variable, however, that a minimum proficiency level is required for exposure to have an effect. I also suggest that for HLLs, long-time exposure to /s/-conserving dialects may block the ability to perceive /s/-weakening more so than for L2s. It is unclear at this time why that may be the case, especially considering that most research has shown that HLLs tend to have a phonological advantage over L2s in production of the HL (Chang, Yao, Haynes, & Rhodes, 2011) and that even when HLLs do not produce certain contrasts in the same way as NSs, they do perceive it in the same way (see Kim, 2012). It is possible that this phonological advantage may not extend to include a perceptual advantage in all cases, especially when new categories in new contexts must be created, meaning that the L2 interlanguage perceptual system may potentially be more malleable than that of HLLs. However, there has been very little research on the sound system of HLLs in general and even less on how HLLs learn to re-map variable categories. As such, the results of this study support the call for future research in the area of perception of variable forms among HLLs.

5.4. Proficiency

Taking into consideration only the L2 speakers, the results of the proficiency factor group echo the findings of previous studies which have shown that greater language proficiency generally tends to translate into higher rates of /s/ perception. For example, in her study of L2 speakers at five different proficiency levels, Schmidt (2011) found that perception of syllable-final [h] as /s/ did not emerge until level 3 and increased at each subsequent level. However, as Schmidt (2011) points out, “it should be stressed that increased identification of coda [h] as ‘s’ is not due to greater proficiency in a second language per se, but rather may reflect several different factors that correlate with higher proficiency level (greater exposure)” (p. 154). As she explains, several factors are typically confounded with proficiency level. For example, in her study, higher proficiency speakers usually reported explicit linguistic knowledge and/or experiences in /s/-weakening regions, while most lower level learners had not been abroad at all and had no linguistics training. She carefully states that although her data point to higher proficiency levels favoring more accurate identification of aspiration, it in no way seeks to claim that increased *proficiency* is the driving factor in acquisition of the dialectal variants, but rather that increased proficiency generally represents increased language exposure and linguistic knowledge (p. 154).

She then asks a very important question: why do lower proficiency L2 speakers tend to be less accurate than their more proficient counterparts—consistently mapping [h] to Ø? She suggests that these learners may be relying on patterns from the phonological system already in place—their first language, English—which does not allow syllable-final /s/-weakening in standard dialects. Thus, in English, any syllable-final [h] is simply noise in the signal; it is not a legitimate variant of /s/ and does not cue contrastive information. For example, L1 English speakers would not /duht/ to mean /dust/ (George, 2014, p. 98) and syllable-final aspiration in a word such as *table* [telh.bəl] would not provide new meaning as compared to [tel.bəl] (Schmidt, 2011, p. 149). She states that novice and intermediate-low speakers may not have had sufficient (or any) input of these weakened forms to develop the new phonological patterns of the second language that would naturally occur with greater exposure to varieties outside of the classroom. Additionally, she explains that even if L2 learners are exposed to instructors of /s/-weakening dialects inside the classroom, research has shown that these speakers may adjust their speech in the classroom toward a more /s/-conserving style (Santilli, 1996) or may produce different forms of /s/-weakening other than aspiration which was the variant targeted in her study.

Although these factors likely play a role in the complicated relationship between proficiency and perception of weakened /s/, they do not have the explanatory power to account for all of the results of the current study. Most important is the fact that Schmidt’s (2011) cross-sectional study examined a wide range of students taking undergraduate Spanish courses; naturally, some of these students had experience abroad but many did not. Contrastingly, the current study examines only learners participating in a particular immersion experience in a particular region where the variable is present. Thus, whereas Schmidt is able to suggest that novice speakers largely do not have exposure to /s/-weakening which in turn contributes to their low perception rates, all of the participants of the current study were exposed to the variable for an entire year, but even so, the novice speakers were still successful in mapping [h] to /s/ only about a quarter of the time whereas intermediate-high speakers were successful slightly more than half the time. This seems to suggest that actual proficiency may be more powerful of a predictor than it has been given credit for—that if exposure is held controlled (at least once arriving in the /s/-weakening region), both intermediate-low and

intermediate-high speakers still have an advantage over novices in their overall perception rates and both improve over time at a faster rate than novices.

As such, I suggest that proficiency in and of itself is an important predictor of the perception of /s/-weakening because it is typically representative of greater global comprehension abilities, which, I argue, are necessary for a remapping of the phonological system. In a place such as coastal Ecuador, where /s/-weakening is not categorical, learners are exposed to contrasting information regarding syllable-final /s/. They are receiving input of exemplars where /s/ ranges from fully sibilated to fully deleted. Novice speakers with weaker comprehension abilities may be receiving this input, but if they are unfamiliar with a large percentage of the input they receive (i.e. less of the input is converting to *intake*, meaning that it is not incorporated into the interlanguage system [see Corder, 1967, p. 165]), they have retained fewer exemplars in their system of weakened /s/ and fully-sibilated /s/ mapping to the same underlying form. As such, it is much more difficult for these speakers to re-map their interlanguage phonological system since they are lacking the linguistic information necessary to make those changes. However, if speakers have greater comprehension abilities, they are able to more easily recognize words and phrases containing /s/, more quickly associate [h] and other weakened forms to /s/, more accurately internalize local patterns of variation, and more efficiently re-map their phonological system.

Lastly, the fact that proficiency was not a significant factor group when the HLLs were included in the analysis underscores the heterogeneity of the HLL population (Potowski, 2013) and may also point to perception abilities being tied more to an HLL's home dialect than to the fact that they are an HLL (as opposed to an L2). Similar to the results of Amalia and Bianca presented here, Schmidt (2014) found that NS of Spanish from /s/-conserving regions had difficulty identifying weakened-/s/; thus the two female HLLs are performing (at least initially) similarly to monolingual Spanish speakers from conserving dialects. The curious piece, however, is that they do not make perceptual changes during the immersion experience (while Schmidt (2015) did find that conserving speakers with contact with weakening speakers did tend to perceive aspirated-/s/ as /s/). Future research should explore further these individual differences among HLLs to investigate how questions of language use and identity (Norton, 2013; Parra, 2016) relate to perception of dialectal variation.

6. Conclusion

The current study contributes to the growing body of literature in variationist studies in SLA by investigating an under-represented topic of sociolinguistic competence: how speakers perceive and process variation in coda /s/-weakening. Due to the widespread nature of coda /s/-weakening and the resulting likelihood that learners will encounter the variable in their interactions with NSs, it is imperative to understand what they do when they receive competing input variants ranging from [s] to Ø. Incorrectly mapping a weakened /s/ to nothing (i.e. if *máØ* is understood as *ma* 'mom' rather than *más* 'more', or if *habla[h]* is understood as referring to the third person singular form rather than second person) has the potential to impede comprehension of lexical items and of the important morphological information that /s/ provides in verbs and plurals.

This study explored how language learners perceive and process coda /s/ aspiration in nonce word stimuli before and after exposure to the variable in a naturalistic environment in coastal Ecuador. The goal of the study was two-fold: (1) to determine the effect of factors such as phonological context, exposure, language proficiency, and individual differences on the ability to map [h] to /s/, and (2) to suggest that studies whose aim is to explore the acquisition of sociolinguistic competence should not look solely at learner production of variable forms but also at their perception of such forms. Although learners may never produce certain variants, gains in perception alone can reflect gains in sociolinguistic competence.

To summarize the results of the first goal, phonological context, exposure, language proficiency, and individual differences were found to significantly constrain the ability to perceive aspiration (with the exception of proficiency among HLLs). Participants were more successful in perceiving aspiration and improved more over time when [h] was followed by a consonant than a vowel or pause. This could be attributed to the fact that following consonants provide occlusion which does not allow for as much gestural overlap of the [h] segment as compared to that which exists with following pauses and vowels. Listeners may also be aided by other acoustic cues such as increased syllable duration in the stressed syllables characteristic of the /s/C context, compensatory lengthening of the following onset consonant, or longer VOT for voiceless stops.

Exposure to the variable was a significant predictor, but continued exposure after the first interval in-country did not result in continued improvement. This suggests that for most learners, a remapping of /s/ categories occurs relatively soon after exposure, but after the initial adjustment, there is no evidence of continued tuning. Future research should explore if these results are similar to those of other phonological variables or if exposure affects each variable differently (as Howard [2012] has suggested is the case for French variables).

Proficiency was a significant factor only for L2s, with higher proficiency levels better at considering [h] a legitimate variant of /s/. Intermediate-low speakers made the greatest gains over time, followed by intermediate-high, and lastly by novices. HLLs did not follow these patterns; despite all three speakers having high language proficiency, two of them had the second- and third-lowest scores overall in the perception tasks, meaning that they performed at a similar level to the least proficient L2s. On the other hand, the third HLL (who had more exposure to /s/-weakening dialects prior to the volunteer experience) was the most successful in mapping [h] to /s/ of the entire participant pool. This underscores the heterogeneity of HLLs and suggests that those from different home dialect backgrounds may process dialectal variation in different ways. Future research should explore how the perceptual systems of HLLs operate in terms of perceiving and processing new dialects.

Lastly, there was significant variation seen at the individual level. These results were in some ways supportive of previous research (i.e. Schmidt, 2011) in that in general, individuals with more language experience and exposure to /s/-weakening dialects seemed to score higher on the initial perception task, but several individuals fell outside of these trends. For example, one intermediate-high L2 speaker had never spent time in an /s/-weakening dialect yet was third overall in perception scores. Another intermediate-high L2 speaker only spent 10 days in an /s/-weakening region and no other time abroad and was fourth in perception scores. The two HLLs with low scores had more extensive language experience than the L2s yet still scored below all but one of them; one participant spent four months in /s/-weakening Andalusia (more than any other L2) but was ninth of 14 in perception scores. The individual variation found in this study supports the findings of Howard (2012) who reported significant individual variation in the initial emergence of French sociolinguistic variants among L2s abroad. He explains that, even with the extensive ethnolinguistic information gathered from his learners about their background language-learning history and experience, “it was not possible to identify a specific factor to explain the ease of use of some of the variants by some of our learners as opposed to the other learners” (p. 29). Similarly, the results of this study suggest that although experience and exposure are important factors, they do not have the explanatory power to account for all of the variation present at the individual level. Future research should consider other factors such as motivation and identity.

As for the second goal, the results of this study suggest that learners can make significant progress in the acquisition of sociolinguistic competence by learning to re-map their phonological system. This growth is evident without even considering if they are producing /s/-weakening themselves but could be overlooked if only production is measured. Although most previous research has focused on the production of variable forms, I argue that it is equally important to study the perception of such forms to understand how learners are internalizing previously unfamiliar variables. Further research on how learners perceive and process /s/-weakening, as well as other phonological variables, has the potential to contribute to SLA theory by improving our understanding of how the learners shift their phonological categories to adapt to the variable nature of language.

Although this study has presented innovative research on the perception of dialectal variation, it is not without limitations. First, the low number of participants, especially for the HLL group, restricts the ability to make broad generalizations regarding L2 and HLL perception of dialectal variation. Future studies with wider participant pools, including more HLL speakers, would allow researchers to confirm or reject the findings of this project. Secondly, because the perception task was repeated every 6-8 weeks, it is possible that the participants became familiar with the task and therefore answered similarly over time. Including more distractor items and randomizing the stimuli may help mitigate this effect. Lastly, during the statistical analysis, the nonce word carrier was not included as a random variable. Because of the gradient nature of /s/-weakening and the fact that the stimuli were created by a real speaker and not inserted artificially, it is undeniable that there was some variation in the weakened /s/ variants used in the stimuli. Running the nonce word carrier as a random variable would help to identify if certain stimuli were easier to perceive than others, potentially suggesting that they were less weakened than others. Including the nonce word carrier as a random variable would also shed light on if phonetic context played a role in perception (i.e. if /s/ was more

accurately perceived before /t/ than before /p/) or if there if there was an effect of frequency (i.e. if a certain nonce word was similar to a highly frequent real word for which learners had already made the weakened-/s/ mapping).

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Impact of the usage of Vietnamese consonant-vowel (CV) structure on the intelligibility of Vietnamese speakers of English

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ABSTRACT

EN This paper reports on findings from an investigation into the potential impact of the mother tongue of 50 Vietnamese adult EFL learners on their English intelligibility, with a particular focus on CV (consonant - vowel) syllable structure. The data from this quantitative study indicate that participants applied the Vietnamese CV syllable structure (open syllables CV.V) to the pronunciation of English CVC syllable structure (closed syllables CVC.V particularly in polysyllabic words and words with CVL (consonant – vowel – lateral) structure, potentially affecting speech intelligibility. These outcomes contribute to research on EFL speakers' intelligibility.

Key words: CV SYLLABLE STRUCTURE, MOTHER TONGUE, EFL LEARNERS' INTELLIGIBILITY, VIETNAMESE SPEAKERS OF ENGLISH

ES El presente trabajo reporta los resultados de una investigación que se llevó a cabo con un grupo de 50 adultos vietnamitas aprendientes de inglés como lengua extranjera acerca del impacto potencial de su lengua materna en la inteligibilidad de su inglés, con un enfoque particular en la estructura silábica CV (consonante-vocal). Los datos de este estudio cuantitativo indican que los participantes aplicaron la estructura silábica vietnamita CV (sílabas abiertas CV.V) a la pronunciación de la estructura de sílaba CVC en inglés (sílabas cerradas CVC.V), particularmente en palabras polisílabas y palabras con CVL (consonante-vocal-lateral), lo cual podría afectar la inteligibilidad de su habla. Estos resultados contribuyen a la investigación sobre la inteligibilidad de los hablantes de inglés como lengua extranjera.

Palabras clave: ESTRUCTURA SILÁBICA CV, LENGUA MATERNA, INTELIGIBILIDAD DE LA ESTRUCTURA SILÁBICA CV DE APRENDIENTES DE INGLÉS COMO LENGUA EXTRANJERA, HABLANTES VIETNAMITAS DE INGLÉS.

IT Quest'articolo presenta i risultati di un'indagine condotta sul potenziale impatto della lingua materna di 50 vietnamiti adulti che studiano l'inglese come lingua straniera sulla comprensibilità del loro inglese con speciale attenzione alla struttura sillabica CV (consonante-vocale). I dati raccolti dalla presente ricerca quantitativa indicano che i partecipanti applicano la struttura sillabica CV del vietnamita (sillabe aperte CV.V) alla pronuncia della struttura sillabica CVC dell'inglese (sillabe chiuse CVC.V), specialmente in parole polisillabe e parole con struttura CVL (consonante – vocale – laterale) il che potrebbe potenzialmente incidere sulla comprensibilità del parlato. Questi risultati sono un contributo alla ricerca sulla intelligibilità dei parlanti di inglese di inglese come lingua straniera.

Parole chiave: STRUTTURA SILLABICA CV, LINGUA MATERNA, INTELLEGIBILITÀ DEGLI STUDENTI DI INGLESE COME LINGUA STRANIERA, PARLANTI VIETNAMITI DI INGLESE

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1. Introduction

English today is spoken worldwide. In the context of its globalization, interactions between diverse speakers are rapidly increasing throughout the world and intelligibility is crucial to these interactions. Reasonable intelligibility, rather than native-like pronunciation, should be the goal of phonological instruction in second language classrooms, argue studies such as Celce-Murcia, Brinton, and Goodwin (1996) and Kenworthy (1997). Reasonable intelligibility is defined by Smith (1988; 1992) as the ability of listeners to recognize words, and it is an important criterion and learning aim for EFL learners who want to use English as an International Language (EIF). While intelligibility has been investigated among EFL speakers in Association of the Southeast Asian Nations (ASEAN) settings in a few studies (e.g., Deterding, 2011; Jenkins, 2000; Kirkpatrick, 2010), the present study will provide more data on EIF intelligibility for teaching of English in the ASEAN in general and in Vietnam in particular.

In order to assist EFL learners in attaining reasonable intelligibility, we need to know what factors affect the speech output of EFL speakers. It is argued that there are various factors, such as aptitude for oral mimicry or years in an English speaking country influence the speech production of second language (L2) speakers (Purcell & Suter, 1980). Ioup and Weimberger (1987), Odlin (1989), and VanPattern (1998) suggested that the native language and negative transfer are the major sources of difficulties in inter-language phonology. Avery and Ehrlich (1992) also see the first language (L1) as a significant factor, showing that the sound pattern of the learners' first language transferred into second language and is likely the cause foreign accents, which reduce L2 speaker intelligibility. Other research supports the position that a higher degree of foreign accent is associated with lower intelligibility (Munro & Derwing, 1995; Puerto, Lacabex, & Lecumberri, 2007). Yet, although the relationship between L1 and speaker intelligibility in various respects has become an important focus of L2 pronunciation research in the last two decades, empirical studies that examine the relationship of L1 with speaker intelligibility in terms of suprasegmental features are few and their findings do not provide a significant conclusion (Benebah, 1997; Derwing & Munro, 1997; Zielinski, 2006). Thus, it is the intention of this paper to explore this relationship.

2. Intelligibility and first language with reference to suprasegmental features

In English, suprasegmental elements of pronunciation include the following elements: syllable structures, stress, rhythm, adjustment in connected speech, prominence and intonation, pause, and pitch. These elements play a large role in English communication, as they provide crucial context and support (e.g. they determine meaning) for segmental production (Cunningham, 1998; Fromkin, Rodman, Collin, & Blair, 1990; Roach, 2002). Cunningham (2009) argues, however, that while many claims have been made as to the relationship between suprasegmentals in adult EFL learners' mother tongues and their speech intelligibility in English, few studies exist related to the impact of mother tongue on second language pronunciation. And in the few studies on suprasegmental features and L2 intelligibility, the results have been inconclusive. For instance, in studies on intonation (Munro & Derwing, 1995), prosody (Derwing & Munro, 1997), word stress and syllable stress errors (Benrabah, 1997; Suenobu, Kanzaki, & Yamane, 1992; Zielinski, 2006) and incorrect pause insertion (Suenobu et al., 1992), none of the authors came to a significant conclusion, although Benrabah (1997) and Suenobu et al. (1992) suggested there was some support for the idea that both word stress errors and incorrect pause insertion have the potential to affect intelligibility. Zielinski (2006) found that syllable stress errors are also a potential factor in reducing speaker intelligibility for adult Vietnamese ESL speakers' intelligibility by three native (Australian) listeners. This study suggested that the Vietnamese speakers' syllable stress pattern was sufficiently different from standard use to mislead the listeners, who had to concentrate heavily to achieve understanding. Additionally, Nakishima's (2006) findings in his research report from reanalyzing the data of Japanese adult EFL learners errors presented by Jenkins (2000) indicated 75 percent of the errors, (which Jenkins treated as segmental), could involve suprasegmental problems. Nakishima categorised the individual sound errors as suprasegmental, brought about by nasals that occur only at the end of a syllable, non-reduction of weak syllables (e.g. [sAkɑ:] as in "soccer club"), and Japanese syllable structure. He further stated that these errors were mainly caused by the Japanese open syllables (CV#V) applied to pronounce English closed syllables (CVC#V), making words unlinked in their speech since Japanese has a very limited number of final syllable consonants (Nakishima, 2006). This view raises a hypothesis for further studies and specifically prompts this study, as the open syllable structure is probably used to articulate English closed syllables by Vietnamese learners due to the very limited final consonants in Vietnamese, reducing their English intelligibility.

The current quantitative research study aims at providing insight into Vietnamese CV syllable structure (open syllables CV.V) applied in the pronunciation of CVC syllable structure (closed syllables CVC.V) in English words, particularly polysyllabic words and words with CVL structure, (consonant-vowel-lateral), probably affecting Vietnamese adult EFL speakers' speech intelligibility. The usage of the CV structure in these cases has the potential to give rise to new words and non-English words from the intended words or hiatus between the syllables of polysyllabic words, producing "strange" prosody to interlocutors, as described in the next section. More precisely, this study focuses on examining how 50 Vietnamese university students' English intelligibility was affected by errors that are analysable as a result of the application of Vietnamese CV syllable structure in articulation of English closed syllables containing CVL and polysyllabic words in a pronunciation test and in their oral output. It is the intention of this paper to contribute to suprasegmental research and reduce the gap in the body of knowledge in this field.

3. English and Vietnamese syllable structures

Differences of syllable structures between the Vietnamese language and the English language may be one of the reasons why participants have trouble with English polysyllabic words and words associated with the CVL structure.

In English, there are various types of syllable structure, such as consonant-vowel (CV) then CVC, CCVC, CCCVC, CCCVC (Erickson, 2001). Vietnamese is an Asian tonal language with a simpler syllable structure than English. In Vietnamese, like in Thai and Chinese, a syllable consists of two compulsory elements: a tone and a nuclear vowel. Beside the four tones shared with Thai and Chinese, namely mid, low, falling, rising, (Mok, 2007; Zhang, 1996), Vietnamese has a low-falling-rising tone and a low-falling broken tone. Ngo (2006) describes that in Vietnamese, "[e]ach syllable consists of two mandatory components: a tone and a nuclear vowel; in addition, three optional components may be present: an initial consonant, a sound indicating the labialization (rounding of the lips) of the syllable, and a final consonant or semivowel" (p. 7). In other words, the initial consonant, labialization and final consonant/semivowel are not always present. Thus, the syllable structure of the Vietnamese language can be displayed as in Figure 1.

Tone			
Syllable-initial sound	Medial (labialization) /u/	Principal/Nuclear vowel	Final sound or semi vowel

Figure 1. Vietnamese syllable structure (adapted from Doan, 1999; Ngo, 2006; Tang, 2007)

CV or CVC plus a tone are the two most common syllable structures in the Vietnamese language. A consonant-vowel (CV) syllable, like a vowel only (V) syllable, is classified as open syllable, or a syllable that ends with a vowel (Cox, Harrington, & Mannell, 2009). As Cox et al. (2009) state, "[n]o syllable has more than one vowel. Vowel-like sequences in a single syllable are interpreted as diphthongs or semi-vowel plus vowel sequences" (p. 3). Therefore, the vowels in the open syllable CV structure may include diphthongs or a vowel plus semi-vowel. A consonant-vowel-consonant (CVC) syllable is a closed syllable, which is defined by Cox et al. (2009) and Roach (2002) as a syllable that has at least one final consonant. These syllable structures (CV and CVC) can be illustrated with CV **ba** [ba:] (father), and CVC **bang** [ba:ŋ] (state) respectively. In Vietnamese, the frequency of open CV syllable structure is much higher than that of closed CVC syllable structure, as there are only six syllable-final consonants in Vietnamese (/p/, /t/, /k/, /n/, /ŋ/, and /m/) (Mok, 2007; Ngo, 2006), compared to 54 syllable-final consonants in English (Tang, 2007). Meanwhile, the Vietnamese language has 14 vowels and 27 diphthongs and triphthongs compared to 20 vowels and only 5 diphthongs in English (Roach, 2002). Tang (2007) stated, "[t]he English and Vietnamese languages share seven monovowels" (p. 7), while the vowel /ə/, listed as unshared by Tang, is considered to be a shared vowel by Dang (1998) and Ngo (2006). The latter also added to the shared list four diphthongs in English, called principal vowels in combination with final semi-vowels /i/ and /u/ in Vietnamese. Figure 2 and Figure 3 below show the final consonants and the vowels in English that are shared and unshared with Vietnamese.

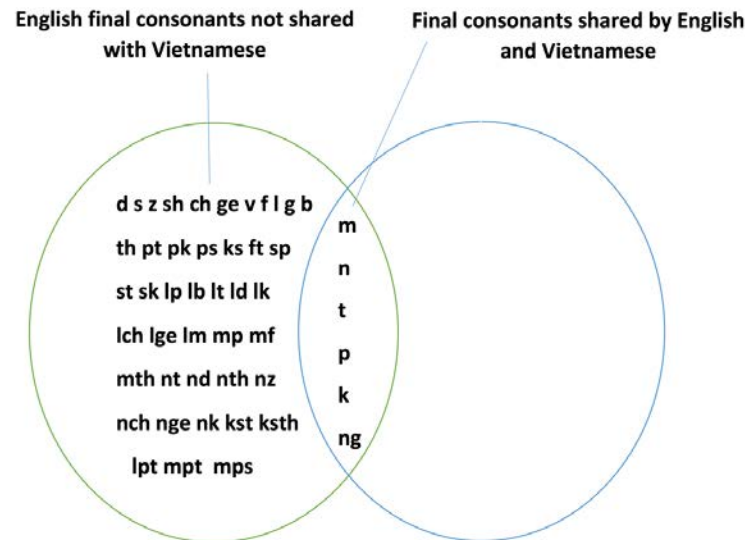


Figure 2. English final consonants shared or unshared by the Vietnamese language (adapted from Dang, 2014)

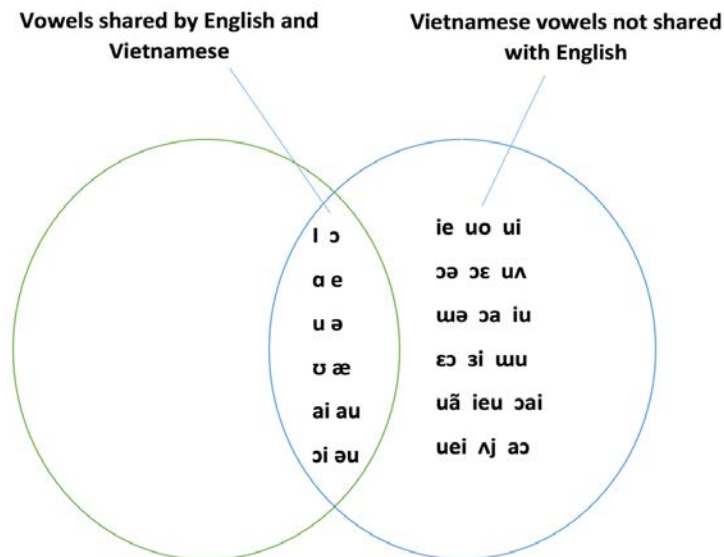


Figure 3. Vietnamese vowels shared and unshared by the English language (Dang, 2014)

One hypothesis arising from the differences of the segmental elements between the two languages is that Vietnamese adult EFL/ESL learners may use the Vietnamese open syllable CV when producing the English closed syllable CVC, making it hard for interlocutors to recognize the target words. In English, the distinction between CV and CVC is significant in determining meaning. The presence of a coda in a CVC syllable is contrastive to a CV syllable, when the two structures share the same vowel. For instance, **say** /seɪ/ and **he** /hi/ are different from **sale** /sell/ & **heal** /hil/ respectively because of the final phoneme /l/. For Vietnamese adult EFL/ESL learners, because the final /l/ does not exist in the Vietnamese closed syllable CVC, **sale** /sell/ and **heal** /hil/ sounds are heard to be similar to [seɔ] and [hiu] (Dang, 2006). One reason that speakers may substitute the open syllable CV for the closed syllable CVC might be the unshared vowels and

unshared syllable final consonants between Vietnamese and English. In a previous study conducted by the author of this article, Dang (2006) showed that CVC syllables in which L is the lateral consonant are often converted into various forms of open syllables with a CV structure. For instance, **hill** or **heal** will be produced as hiu/hieu; **sell** or **sail** will be produced as seɔ; **smile/mile** will be produced as [smaɪ]/[maɪ].

A secondary hypothesis is that the Vietnamese open syllable CV structure might be used to pronounce English CVC syllables most frequently in polysyllabic words with a sequence of CVC.VC. In contrast to the CV for CVC substitution in monosyllabic words, this substitution in polysyllabic words also serves to make the prosody strange to listeners.

Part of this stems from the way that consonants work in polysyllabic words in English. In the English syllable structure, the maximum codas principle holds that a syllable must not end with a short vowel (Roach, 2002, p. 47). Therefore, for instance, **botany** is separated into three syllables by a hyphen as follows: bot-an-i, which coincides with the bot.an.i in Webster's New World Dictionary in which the dot (.) is a syllable boundary. Such division of the syllables has also been applied in Cambridge Dictionary as shown as /'bɒt.ə.ni/ (Cambridge Dictionary.org), supporting Roach's view. However, based on the maximum onset principle many linguists suggest that phonemes /t/ and /n/ really belong to the second syllable and third syllable respectively. Roach (2002) proposes that both principles may be at play, with final syllabic consonants serving as initial ones of the following syllables. According to Roach (2002), "[i]n English, consonants have been analyzed as acting simultaneously as the coda of one syllable and the onset of the following syllable, as in 'bellow' bel-low, a phenomenon known as ambisyllabicity" (p. 49). The term accounts for connected sounds in polysyllabic words in English. Therefore, **botany** is linked as /bɒtəni/.

In contrast, in Vietnamese, as in Thai, all final consonants (including /n/ and /t/ in **botany**) are unreleased with no audible explosion (Doan, 1999; Mok, 2007). This is why the words **xem ô-tô** /sem ≠ o.to/ (to look at automobiles) and **xe mô-tô** /se ≠ mo.to/ (motopeds) are pronounced differently. In this pair, the final nasal sound /m/ (as in **xem**) is unreleased whereas the initial /m/ (as in **mô**) is explosive (Nguyen, 1987, p. 778). Perez and Carty (2004), suggest that this is why "Vietnamese students tend to drop English final consonant sounds" (p. 204). Following the Vietnamese pronunciation of final consonants, the /t/ and /n/ in **botany** would not be linked to both their preceding and following vowels. Instead, they would be considered only as the initial consonants of the second syllable and the third syllable respectively. In other words, the two initial syllables of **botany** would become open syllables. Therefore, based on the Vietnamese open syllable CV, **botany** might be produced as bɔ/ tə/ni clearly and separately syllable by syllable without connected syllables. Such a pronunciation habit is more likely to happen to polysyllabic words which are made up of closed syllables with final consonants unshared by the Vietnamese. This is underpinned by Nakashima (2006), who suggested, "[a]most all English closed syllables are pronounced as open syllables by Japanese English speakers since there are a very limited number of consonants in final syllabic position" (pp. 9-10).

4. Measurement of intelligibility

Munro et al. (2006) pointed out that a range of diverse techniques and methods have been employed by scholars to explore non-native speakers' intelligibility, including listening comprehension tests (Anderson-Hsieh & Koehler, 1988), cloze tests (Smith & Rafiqzad, 1979), and grammatical paraphrase task (Ingram & Nguyen 2016). The choice of which of these methods to employ depends on the features of non-native speakers' speech that are targeted for measurement of intelligibility. Some researchers (e.g. Water, 2002) have employed pre-selected speech stimuli for participants based on the assumption that non-native speakers' intelligibility is significantly influenced by their confusion between voiced and voiceless sounds or short and long vowel sounds. For instance, Water (2002, as cited in James, 2006, p. 8), in focusing on the pronunciations of CVC words, only used four minimal pairs (cap/cab, pick/pig, pot/pod, beet-bead) to test word-recognition intelligibility. Water's findings reveal that American English listeners frequently could not distinguish between the final voiceless and voiced consonants of the test words produced by ESL/EFL speakers (Japanese and Taiwanese). He therefore concluded that in order to improve speech intelligibility, English speaking instruction should have exercises of both pronouncing and distinguishing words with voiced and voiceless final consonants.

Speech intelligibility with a particular focus on prosody can be measured and evaluated by using technology. This method focuses on examining the prosodic differences in speech of non-native speakers (NNSs) and native speakers (NSs) in the range between the highest and lowest pitch for the falling tones and/or the rising tones. While a significant difference in range between NNSs and NSs is possible, this does

not appear to influence intelligibility: NNS speech can be intelligible in spite of this difference in the range of falling tones and rising tones (Binghadeer, 2008). This approach is also found in the studies conducted by Derwing & Munro (1997), Trofimovich and Baker (2006), who measured speakers' intelligibility in suprasegmentals by removing most of the segmental information, while leaving prosodic features largely intact. However, the effect of suprasegmental features on intelligibility was inconclusive. Thus, the effects of prosody and suprasegmental features should be explored further.

It is also important to investigate the approaches that are commonly used to measure ELS or EFL learners' intelligibility. Dictation tasks have been accepted to be one of the common approaches to evaluate L2 speakers' verbal intelligibility with reference to segmental features. In these dictation tasks, listeners are requested to write out speech utterances they hear, and the number of the words which are correctly interpreted is used as an index of speech intelligibility. This method was used in the studies conducted by Burda, Scherz, Hagerman, and Edwards (2003), Derwing and Munro (1997), and Munro, Derwing, and Morton (2006).

In the current research, dictation tasks were applied to identify utterances at syllable structure level. This is largely because potential errors would appear in words with final syllabic consonant /l/ and in polysyllabic words which were likely to be wrongly transcribed or missed mainly due to the application of open syllable CV in the pronunciation test.

5. Theoretical framework

From previous studies (e.g. Derwing & Morton, 2006; Derwing & Munro, 1997), the following theoretical framework has been developed (Figure 4). In this framework, transfer from the first language (Vietnamese, with an open syllable structure) to the second language (English, with a closed syllable structure) is presumed to have a negative effect on intelligibility of the speakers' English.

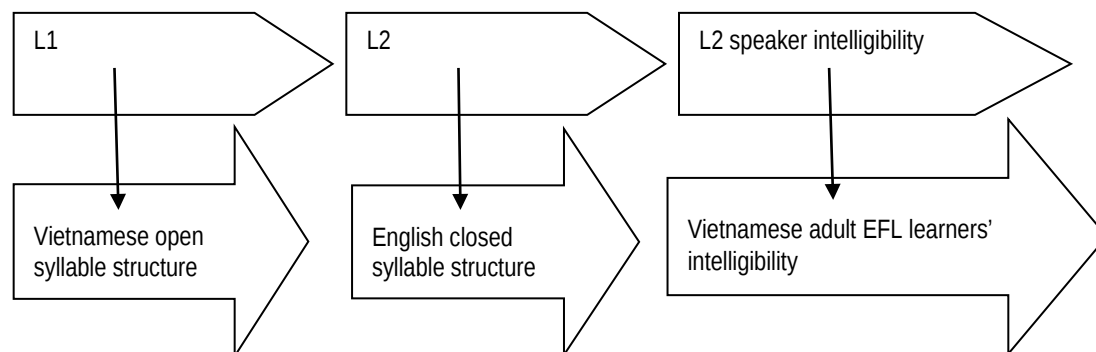


Figure 4. Transfer between L1 and L2 impacts intelligibility

6. Methods

This quantitative study involved collecting data from university students in Vietnam via a pronunciation test. This article attempts to respond to the following two research questions:

1. Do syllable word errors influence Vietnamese speakers' intelligibility on an English pronunciation test?
2. If so, how are these errors affected by the Vietnamese speakers' CV syllable structure?

6.1. Participants

Participants were 50 first-year students aged between 19 and 20 from the English Department of a university in Vietnam. They were all studying English for teachers, had seven years of English courses in high school taught by Vietnamese English teachers, and had been learning English at the university for more than one semester. The total number of the first-year students who majored in English for teachers is 250 or more, and students were divided into five classes. These students were usually better at English, particularly in speaking, than those who majored in other fields both from their university and from other universities. The curriculum for Year 1 covered English subjects associated with instruction in reading, writing, speaking, listening, grammar, and phonetics. None of them had stayed in English-speaking countries. In other words, they all had the same background of English learning and English exposure. Importantly, the sample was

decided on the basis of sample size and the confidence interval with the idea that “larger samples yield narrower confidence intervals” (Cooksey, 2007, p. 356). In this study, the confidence interval was 1/5 (50/250) from the target population (250). In other words, a random sample gave each student a 1 in 5 chance in the study or a probability of selection of 0.2. Such a probability sample meets precision requirements (Berends, 2004). Therefore, it could be said that this sample was useful for gathering information on the set research questions and support the hypothesis.

6.2. Judges

Listeners were selected based on two factors: their linguistic proficiency and their familiarity with Vietnamese NNS English. As Kenworthy (1997) suggested “[t]here are two listener factors in determining the speaker intelligibility; first the listener’s familiarity with the respective foreign accent and, second, the listener’s ability to use contextual clues when listening” (p. 14). Raters were selected who had no or very little contact with Vietnamese speakers, and who had a very high level of English proficiency. A group of ten listeners—five NS listeners (three Australian; two British) and five NNS listeners—who met these criteria were chosen to rate the 50 participating Vietnamese adult EFL speakers’ intelligibility. The five non-native speakers were selected from a list of the researcher’s colleagues. All had qualifications at the Masters level in Applied Linguistics or TESOL, were fluent in English speaking and listening skills, and had some years’ experience in teaching English. The NNS assessors were Iranian, Chinese, Indian-Singaporean, Iraqi, and Dutch. As for the five native speakers, the selection was also made through the Vietnamese-accented English researcher’s communications with assessors who rarely interacted or never talked with the researcher before. Such communications told the researcher whether or not they were friendly and how frequently they contacted Vietnamese-accented English speakers in order to minimize the bias which might be caused by listeners’ attitude to foreign accents. This is largely because native (L1) listeners frequently have a negative attitude towards foreign-accented speakers and are known to be highly sensitive to foreignness in speech (e.g., Munro et al., 2006).

6.3. Data collection

A pronunciation test was designed by selecting from a reading text in an IELTS listening textbook from Scovell, Pastellas, and Knobel (2007), in which the vocabulary was not unfamiliar to the participants¹. Participants read the text consisting of 312 words in which 70 are related to the aim of the current paper: English polysyllabic words with the closed English syllable structure (CVC.VC.VC.) and/or single words associated with the CVL structure (See Appendix 1 for text). This paper is concerned with the errors emerging from these 70 words, but ignores the other errors in the talk, as these were not relevant to the aims of the present study. This reading was tape-recorded by the researcher, resulting in 50 different recordings. Handouts of the text were given to the participants at the first meeting in the classroom, where the researcher presented the aims of the research, instructions about the pronunciation test, and the method of the measurement of their pronunciation performance. To make sure that all the informants understand and were able to read the text aloud meaningfully, they were asked to read it with the help of a dictionary at home before making an appointment with the researcher for the purpose of recording their pronunciation performance in a class room of the university.

To measure the participants’ speech intelligibility, first, the recordings have been randomly coded 01 to 50 and burned to 10 CDs of which each contains five recordings. Each of the ten judges was then requested to listen to a subset of five recordings assigned to him or her and write down verbatim what he or she heard. Judges were asked to write down even non-English words because it was hoped that this would provide evidence relevant to the study. The students’ pronunciation performance was measured based on the number of words which the judges found intelligible and could transcribe after listening three times to the recording. This was considered to be a dictation task for the ten judges. The 50 subjects’ pronunciation performance was measured through the number of errors from the ten raters’ mis-transcribed words at syllable structure level. The judges were also requested to make their comments on each recording about the speaker’s speech production, adding some insights into the spoken data. However, only one of them did it.

¹ In fact, all words in the reading passage were ones that the students had encountered in previous reading comprehension classes. More complicated sentences have been found in English textbooks for high school and university students. It is the usual practice in Vietnam that two or three students were often asked to read a reading passage during a reading lesson while the other students were listening in silence.

6.3.1. Reliability of the pronunciation test

Several factors that could negatively influence the reliability of this research have been taken into careful consideration. Previous studies found that the faster speaking rate was, the lower the listeners' comprehension was. This was true for all speakers, both native and non-native (Anderson-Hsieh & Koehler, 1988; Llurda, 2000). In this paper, speaking rate is measured via the actual number of syllables per second of each speaker. Speaking rates of more than 4.15 syllables per second were judged to be fast, whereas rates of below 3 syllables per second were labeled as low (Llurda, 2000). In the current study, the judgment was made by dividing the total number of syllables (496) counted from 312 words of the text by the total seconds of each recording (See appendix 1). Based on these criteria, the outcomes have shown that none of the speakers' rates were considered "fast" as the fastest speaking rate in this study was calculated at 3.67 syllables per second compared to 4.15 or more syllables per second labeled as fast as mentioned above (Llurda, 2000). However, to ensure that speaking rate is not the potential cause in the current study, a statistical comparison of pronunciation errors (counted) was made between a group of 12 speakers with the fastest speaking rates of 3 – 3.67 syllables per second and a group of 12 speakers with the slowest speaking rates of 2.08 – 2.45 syllables per second. The results show that there is no significant difference in error means between these two groups. Therefore, it could be concluded that speaker rate did not influence intelligibility in this study.

The second potential confounding factor is that word recognition might have become easier with every new recording because of the high chance of having already heard some of the words in their correct forms and increased familiarity with the context. Potential order effects were mitigated by randomly assigning each of the ten judges to listen to their five different recordings in different orders. Additionally, an examination of two sets of recording heard by two judges indicates that although each listener had heard the same passage five times, they were not better able to recognize words in later recordings simply because they knew what to expect. For instance, the word "allocate" was transcribed correctly by Judge 1 in the first recording, but it was missed or wrongly transcribed in the later four recordings. The word "expectations" was accurately interpreted in the second recording assigned to Judge 2 but it was missed or wrongly transcribed in the three last recordings. This would also indicate that context familiarity is not a potential issue either.

6.4. Data analysis

The judges' transcriptions of the 70 test words as produced by the 50 participants were examined in order to determine the type of errors affecting speaker intelligibility. Syllable errors were recognized through mis-transcribed words that demonstrated the hypotheses discussed above. For instance, "where below" in transcript 4, transcript 5, transcript 10, transcript 18, and transcript 44, which was a result of wrong transcription of the original "well below," could be verified as a syllable error. This is because these errors were brought about by the application of the Vietnamese open syllable CV (in "where") to produce closed syllable CVL (in "well"). Based on this, total of syllable errors were counted for each transcript.

7. Findings and discussion

Three hundred sixty syllable errors were counted in the 50 transcripts. As seen in Table 1, 231 were classified as polysyllabic errors, accounting for 64.17%, compared to 35.83% CVL errors (129). This table shows that on average, 7.2 errors (Error Mean) were found per transcript, indicating that every 10 original words from 70 test words had a syllable error. Additionally, many words were, in general, omitted in almost all transcripts.

Table 1
Descriptive statistics about 50 speakers' syllable errors

Participants (N)	Mean	SD	Median	Mode	Min	Max	Sum
50	7.2	2.276	7	10 & 6	4	13	360

The 360 syllable errors, a considerable number, tell us about the impact of syllable errors on the intelligibility of the speech of the investigated cohort, and it provides evidence that speakers' intelligibility is likely affected by the application of their first language in the articulation of English. This is demonstrated in detail in the following sections.

7.1. Seventy test words in the pronunciation test

Based on the literature review, it was expected that errors resulting from the application of the Vietnamese CV syllable structure to CVL and poly-syllabic words would occur in 70 words out of 312 in the text. These include 23 single-syllable words containing the final syllabic lateral /l/ and 47 polysyllabic words in which the final syllabic consonants are recognized as ambi-syllabic (CVC.V(C)). For instance, according to this hypothesis, in the word “pur.pos.es” (ending with CVC.VC) belong to this sequence, the open syllable would be applied, to produce pur.**po.ses**, making a strange prosody to the listeners. The seventy test words and their expected syllable errors are included in Table 2 below.

Table 2

Test words in which errors likely result from application of open syllable CV structure

Monosyllabic words with syllabic consonant /l/ (N = 23) and expected mispronunciation			
▪ all (6)	[ɔ:], [a:] or [əu]	▪ pulse	[pə:s]
▪ will (2)	[wju:]	▪ we'll	[wi:] or [wju:]
▪ skill	[skju:]	▪ you'll	[ju:]
▪ well-below	[weɔ bl əu]	▪ tell	[teɔ]
▪ well	[weɔ]	▪ also	['əusəu] or ['ɔsəu]
▪ results	[rɪ'zɔts] or [rɪ'sɛts]	▪ controlled	[kən'trəu(d)]
▪ material	[mə'tɪəriəu]	▪ still	[stju:]
▪ stressful	['stresfəu]	▪ failed	[feɔ] or [fa:]
▪ little	['lɪtʰəu]		
Poly-syllabic words (N = 47)			
Division of syllables based on onset and coda principles, in reference to Cambridge Dictionary (frequency if > 1)		Division of English polysyllabic words on the basis of hypothesis 2 described in the literature review	
ex.am (5)	rec.og.nize	e.xam (5)	re.cog.nize
un.der.es.tim.ate (2)	phys.ic.all.y	un.der.es.ti.mate (2)	phy.si.ca.lly
all.o.cate (2)	sweat.y	a.llo ca.te (2)	swea.ty
aff.ect (2)	eff.ec.tive	a.ffect (2)	e.ffect.tive
rati.on.all.y (2)	man.age	ra.tio.na.lly (2)	ma.nage
stud.y (2)	phys.i.o.log.ic.al,	stu.dy (2)	phy.si.o.lo.gi.cal
diff.er.ent (2)	psy.chol.og.ic.all.y	di.ffe.rent (2)	psy.cho.lo.gi.ca.lly,
pur.pos.es	par.tic.u.lar.l.y	pur.po.ses	par.ti.cu.lar.ly
col.ours	rep.orts	co.lours	re.ports
per.form.ance	feel-ing	per.for.mance	fee.ling
con.fid.ent	rel.y	con.fi.dent	re.ly
com.fort.able	rid.ic.u.lous.ly	com.for.ta.ble	ri.di.cu.lous.ly
sit.u.a.tion	o.ver.es.tim.at.ed	si.tu.a.tio	o.ver.es.ti.ma.ted
or.gan.ized	gen.er.all.y	or.ga.nized	ge.ne.ra.lly
eff.ect	att.end	e.ffect	a.ttend
ac.ad.em.ic	an.oth.er	a.ca.de.mic	a.no.ther
ab.il.i.ty	foll.ow-up	a.bi.li.ty	fo.llow-up,
ass.ess	ach.ieve	a.ssess	a.chieve
press.ure		pre.ssure,	

7.2. CVL word and polysyllabic word errors caused by the application of open syllable structure

The data from Table 3 and Table 4 below provide evidence that the CVL word and polysyllabic word errors are mainly caused by the use of the CV structure for pronouncing these words in the pronunciation test, strongly affecting their intelligibility.

7.2.1. CV to CVL

Table 3 below shows errors in the pronunciation test that were caused by the application of the Vietnamese open CV to produce English closed CVL. The first column contains the original English CVL words with the final syllabic lateral /l/, the second column shows the CV or CVN variants of the original words produced by participants, and third column shows which listener and transcript number the variant(s) come

from. These variants are regarded as evidence of the participants' pronunciation errors, brought about by application of the Vietnamese open syllable CV to the English closed syllable CVL in their speech.

Table 3
Errors indicating the tendency of the application of CV to CVL

Transcribed as		
English Word (CVL)	(Vietnamese CV or CVN)	Listener & Transcript Number
All	Are	All transcripts
	Or, a	L5.T23, L2.T10
Still	Use(d)	L1.T1
	Stay	L2.T6
	Stew	L7.T31
Skill	Skew	L9.T41
Well-below	Where-below	L1.T5, L2.T10, L4.T18 L9.T44
	Or below	L8.T36
	Far below	L10.T50
	..below	L9.T43
Failed	Fair	L2.T6
	Far	L10.T50
Results	Research	L4.T16, L10.T46,47,49
	Precious	L7.T33
	The show	L8.T32
We'll	We	All transcripts
You will need	You unit	L4.T19

Table 3 also shows that there are a great number of variants from the 13 original CVL words. The specific variants were identified as follows:

- /ɔ:l/ as in "all" is pronounced as [ɑ:] as in "are" or [ɔ:] as in "or". The table shows that the "are" appears in the 50 transcripts written by all the ten listeners, indicating that the variant [ɑ:] from the /ɔ:l/ is almost certainly resulted from the application of Vietnamese open syllables to produce the English closed syllable CVL.
- /ɪl/ as in "still" is converted into [ju:] as in "use(d)" and "stew" found in transcript 1 and transcript 31 respectively, or into [eɪ] as in "stay" interpreted by listener 2 in transcript 6 while /ɪl/as in "skill" is also shifted into [ju:] as in "skew". It can be inferred from these variations the [ju:] (sound like [iu] in Vietnamese) applied to produce /ɪl/ is more recurrent than the other forms [eɪ] .
- Other findings identified are: "well-below" could have been articulated "where below" by speaker 5, speaker 10 and speaker 18, or "or below", and "far below" by other speakers ; "failed" has been recognized as "fair", "far" by listeners 2 in transcript 6 and listener 10 in transcript 50 respectively. Neither final consonant /l/ nor final semi vowel /r/ exists in Vietnamese. Neither final consonant /l/ nor final semi vowel /r/ exists in Vietnamese. The negative transfer could have been caused by the application of the clear CV "que" [weə] in Vietnamese (means "stick" in English) to produce "well" as in well-below because "que" sounds like [weə]"where" in English. Similarly, the negative transfer could also happen as shown in "far" almost certainly as a result of the application of the clear CV /fa:/. This is largely because the word "pha" in Vietnamese ("stage" or "current" in English), was probably applied to produce "failed", since "pha" sounds like "far" in English. Such transmission of the English CVL into different forms of CV could also be found in the other words in Table 3, reflecting that the Vietnamese open syllable CV could have been applied to pronounce the English CVL.
- Attention should be paid to double errors in single words which could be resulted either from the application of Vietnamese CV in production of the English CVL or from another cause. For instance, the word "results", has been interpreted as "research", "precious", and "the show". Whether or not other errors like [tʃ] in "research", [s] in "precious", and no final /st/ in "the show" as a result of conversion of the final cluster /st/ as in "results" under the influence of other causes might account for these variants is a contentious point. However, closer examination of two of the three variations

from the ‘results’ reveals that there is transmission from open syllable CVL as /zAl/ in the second syllable of “results” to open syllables as [sə:] in ‘research’ and [ʃə:] in “precious” because of no existence of the final syllabic consonant in Vietnamese, leading to the application of the open syllable CV [sə:] or [ʃə] in production of CVL /zAl/. In other words, replacing the closed syllable /Al/ with the open syllable /ə/ gave clear evidence about a large influence on such transcripts. That is, the phonetic variant [ə] from the phonemic representation of /Al/ could have made the listeners think up other words instead of “results”, in which the consonants sound nearly alike. All in all, the alterations show that various CV forms such as [sə:] in “research”, [ʃə] in “precious” and [ʃəʊ] in “the show” have been applied to produce CVL /zAl/ in “results”, reflecting the fact that the Vietnamese open syllable CV could have been employed to pronounce the English closed syllable CVL.

7.2.2. CV to polysyllabic words

A clear separation between two or more adjacent syllables in multi-syllabic words in English has been shown to be a major factor in making the participant’s speech unintelligible, as illustrated above. This is mainly caused by the application of the CV structure to the participant’s pronunciation of English multi-syllabic words associated with the sequence of CVC.V(C), making the syllables in adjacency unlinked. Table 4 below shows evidence of such pronunciation habits.

When speakers apply open syllable pronunciation to pronounce closed syllables in polysyllabic words, they produce unlinked syllables which can result in listeners hearing new words or phrases, or even non-English words, which are very unlike the original words used in the pronunciation test. This is illustrated in Table 4, which shows that a single polysyllabic word can have several variants as a consequence of such pronunciation habits. Some words, like “exam,” were misheard in all 50 transcriptions, while different variants of the other original words can be found in different transcripts by different judges. For instance, the original “allocate” is called a polysyllabic word since it is made up of three syllables, which are linked together in natural speech. This pronunciation sounds reasonable on the basis of the maximum onset and coda principles which require that a short vowel never ends a syllable (Roach, 2002), indicating that the first syllable of the “allocate” is /al/. However, this is a controversial problem. Many linguists have come up with a new term for the consonant /l/ in this context as semi-syllabic (Roach, 2002). In other words, this lateral belongs to both the first syllable and the second syllable, implying that it is linked between the first syllable and second syllable in pronunciation. Additionally, the variants of this word demonstrate a clear separation between them. This is shown in Table 4 that the pronunciation of “allocate” has been transcribed as “or locate” in transcript 41 by listener 9 or “air locate” by listener 10 in transcript 50. Both variants show a clear split-up of the vowel of the first syllable from its final lateral as a result of the application of open syllable CV. It can be inferred that this separation probably makes hiatuses between the first syllable and second syllable, mainly involving creation of the new words (variants) “or locate” and “air locate”, whose meanings are quite different from that of the original word. The split-up can also be found in many more variants from the “allocate” such as, “are ok” in transcript 34, “that ok” in transcript 49 and others by different listeners, which reflect the fact that the participants have applied the Vietnamese open syllable CV to articulate closed syllables of this word. All of this indicates that the application of the open syllable CV in articulation of English polysyllabic words associated with a sequence of CVC.V(C) really creates strange prosody for the interlocutors, leading to new words or phrases from the original words.

Many more demonstrations of such a pronunciation habit can be found based on a variety of new words or phrases from the other polysyllabic words in Table 4, like “a fact” from “affect” in transcript 46, “we lie” from “rely” in transcript 2, or “a set” from “assess” in transcript 34 and so forth. One more example from the table which needs to be noted is about different variants of the original, “psychologically”, reflecting the usage of the open syllable CV to the sequence of CVC.V(C). This is shown in the last four syllables, “log.ic.all.y” of the “psychologically”, which have been transferred into “psychology call it” in transcript 21, “psychology colleague” in transcript 33, “biology colleague” in transcript 32 and “psychology course” in transcript 10. All of these variants show the open syllable /y/ applied to the fourth closed syllable /ic/, rather than linking them together as a single word. This clear separation was mistakenly recognized as two separate words by the hearers. Moreover, the hyphen (-) is used between the syllables of divided words as an indicator of the application of CV in articulation of English polysyllabic words. As can be seen from Table 4, many polysyllabic words were transcribed with the hyphen between the syllables by judge 10, who had a Master degree in Applied Linguistics degree and who had been professionally taught English in Australia for many years. Such transcriptions are supported by her overall comments on the five recordings assigned to her to assess that

there is a clear separation of multisyllabic words in the participants' pronunciation. "Spy-cho-lo-gi-cal-ly" from the original word, "psychologically"; "phy-si-lo-gi-cal" from the "physiological"; "a-llo-cate" from the "allocate" and so forth. Her divisions of the syllables reflect that the open syllables are being employed to articulate the closed syllables of the polysyllabic words.

Table 4
Errors indicating the tendency of the application of open syllable CV to multisyllabic words

English Word	Transcribed as	Listener & Transcript
Exam time	The same (time)	All transcripts
Exam (performance)	The same (performance)	L2.T8, T9, L4.T17 L5.T23
Exam (paper)	The same (paper)	L1-L10 (T1-T50)
Physiological	Physical or logical	L7.T33
	Seek for logical	L9.T43
	Physiolo..	L2.T8
	...logical	L2.T9
	Phy-si-lo-gi-cal	L50.T46_T50
Psychologically	Psychology call it	L4.T20
	Psychology colleague	L7.T33
	Biology colleague	L7.T32
	Psychology causes	L7.T35
	Psychology course	L10.T47
	Psy-cho-lo-gi-ca-ly	L10.T46,48,49,50
Assess	..sence	L5.T23
	a set	L10.T46
Physically	Physics colleague	L7.T34
	Phy-si-cal-ly (or)	L10.T46-T50
	phy si ca lly	
Purposes	Purpo	L7.T34
Rely	We lie	L1.T2
Rationally	Ra-tio-nal-ly	L4.T16
Attend	a-tend	L10.T46-T50
(they) allocate	(they) allow...	L5.T21
	(they) are ok	L7.T34
	Or locate, ..locate	L9.T44, T42
	Our case	L10.T46
	Other click	L10.T47
	That ok	L10.T49
	Ask acate	L10.T49
	Air locate	L10.T50
Allocate (to study)	A located study	L4.17
	a-llo-cate	L10.T47-50
Overestimate	timic	L7.T31
	Over-es-ti-mate	L10.T46, T50
Underestimated	Under-es-ti-ma-ted	L10.T49, T50
Most effective way	Mostly motive way	L2.T9
	e-ffec-ti-ve	L10.T46_50
Achieve	Chew	L1.T2
	A chief	L10.T50
Affect	A fact	L10.T46
	a-ffect	L10.T47_T50
Ridiculously	Ri-di-cu-lous-ly	L10.T48_&50

As discussed in the literature review above, the impact of suprasegmental features on intelligibility was inconclusive in previous studies (Beneabab, 1997; Derwing & Munro, 1997; Munro & Derwing, 1995,

Zielinski, 2006, etc.). Despite this, there is agreement that pronunciation of suprasegmentals needs to be explicitly taught to L2 learners (Anderson-Hsieh, Johnson, & Koehler, 1992; Anderson-Hsieh, Riney, & Koehler, 1994; Celce-Murcia, et al., 1996; Gilbert, 1995; McNerney & Mendelsohn, 1992; Morley, 1994). Anderson-Hsieh et al. (1992) wrote that “[s]uprasegmental errors have a more serious effect on intelligibility than segmental errors,” because “prosody provides the framework for utterances and directs the listener’s attention to information the speaker regards as important” (p. 531). The current research study has provided evidence for syllable structure errors (part of suprasegmental features) that result from the application of Vietnamese open syllable structure (CV.CV.CV) to produce the closed English syllable structure (CVC.VC.VC.) in English polysyllabic words and in single words associated with the CVL structure (L is lateral). It shows that the usage of the CV structure in these cases has the potential to give rise to new words and non-English words rather than the intended words, or that clear separation between the syllables of polysyllabic words results in unusual prosody for interlocutors. This significantly reduces the EFL speakers’ intelligibility. This work, thus, contributes to understanding the source of Vietnamese adult speakers’ pronunciation problems with reference to syllable structure, which were not addressed in the previous study by Zielinski (2006).

7.3. Alternate sources of syllable errors

Alternate sources of errors may appear to be present through some of the transcribed words. Some errors might be recognized as consonant omission errors (“*still*” misheard “*stay*”), simultaneous consonant quality errors (“*rely*” misheard as “*we lie*”), vowel quality errors (“*failed*” misheard as “*far*”), consonant cluster errors (“*still*” misheard as “*used*”), or word stress and linking errors (“*psychologically*” misheard as “*psychology call it*”). Yet, syllable errors are still the mostly likely sources of even these errors. For instance, what might seem to be a consonant quality error in “*rely*” /*rely*/ (CVC.V), heard as “*we lie*,” is likely a result of the two syllables being pronounced separately as *re-ly* (CV.CV) because [re] is understood by Vietnamese speakers as the first syllable while the final consonant /l/ is recognized as the initial consonant of the second syllable [ly]. The clear separation of the two syllables probably made the “*rely*” misheard as “*we lie*” by the listener in attempting to make it meaningful.

Apparent vowel quality errors, like “*failed*” misheard as “*far*,” are not really vowel quality errors according to Vietnamese speakers because neither final consonant /l/ nor final semi vowel /r/ exists in Vietnamese. The negative transfer could have been caused by the application of the clear CV /fa:/ (*pha* in Vietnamese means ‘stage, or current...’ in English), which has been applied to produce “*failed*”, and *pha* sounds like “*far*” in English. What seem to be consonant cluster errors, such as “*still*” misheard as “*used*,” are as a result of application of the CV /iu/ in Vietnamese, which is heard as /ju:/ in English. For example /meal/ converted as /miu/ in which /iu/ is a Vietnamese diphthong, sounds like [mju:] in English. (refer to hypothesis and figure 3).

Finally, apparent word stress and linking errors, like “*psychologically*” misheard as “*psychology call it*,” are also syllable errors, recognizable through the fourth CV syllable applied to pronounce English closed syllable, as shown in Table 2 as follows: *psy.chol.og.ic.all.y* vs. *psy.cho.lo.gi.ca.lly* (Table 2). Vietnamese is a monosyllabic language in which one word has one syllable, generally an open syllable, as discussed in the literature review. This negative transfer probably causes a clear pause between syllables, sounding like two words in English.

8. Conclusion

The findings of this study indicate that Vietnamese open syllables have been applied in articulation of English closed CVL syllables, particularly in polysyllabic words. Such a pronunciation habit was found to be one of the main reasons for these word errors, contributing to reducing Vietnamese adult EFL learners’ speech intelligibility in the pronunciation test.

A limitation of this study is that the application of non-standard syllable stress patterns made by the participants may influence their transcripts. As Zielinski (2006) proposed “[t]he listeners appear to rely on the syllable stress patterns in the speech signal to identify the speaker’s intended words” (p. 22). Another limitation is that context clues might have been used to understand some words, despite instructions given to the raters to write the words verbatim as they heard them even if it did not make sense. In future work, an acoustic analysis of participants’ pronunciation data would also enhance reliability. Therefore, these findings point to the need for further studies in relation to the effects of open syllables on EFL speakers’ intelligibility

and linked pronunciation instruction beyond individual sounds and words in Vietnam and other Asian countries.

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Appendix A

PRONUNCIATION TEST TEXT (FROM SCOVELL, PASTELLAS, & KNOBEL, 2007)

We've all known students who've had a good understanding of the subject material yet failed exams or performed well-below expectations. Likewise, we've known students that have, for all intents and purposes, done very little work and passed with flying colours. Often these results can be put down to one thing – stress or a lack of it.

Don't underestimate the importance that stress plays in exam performance. With any exam, you should front up feeling confident, comfortable and organized. Rightly or wrongly, exams in effect, not only test your academic ability, they assess your frame of mind and your skill to perform under pressure.

We all recognise that stress affects us physically – I'm sure you've all experienced an increased pulse, or sweaty hands or underarms, or shortness of breath when placed in a stressful situation. Sleeplessness can also be a problem around exam time. The most effective way to manage these physiological reactions is through controlled breathing – which we'll practise later.

Psychologically, stress affects the way you think. For an exam you need to think rationally, particularly after you read an exam paper which you know nothing about is very hard to do². Otherwise, stress can make you panic. Look at the question calmly and rationally and dissect the question. And let's face it, even if you haven't prepared well enough, you'll still need to think rationally in order to do your best under those very trying circumstances!

Don't rely on what other students tell you about the time they allocate to study. The reports we have had over the years have been ridiculously overestimated and underestimated. We're all different, so it stands to reason that the time we need to allocate to study will be different! Generally speaking, for every hour of lectures you attend, you will need another hour of follow-up or research work if you want to achieve good grades.

End of the pronunciation test

Total of words: 312 including 496 syllables

² Transcribed verbatim from Scovell, Pastellas, & Knobel (2007).

Appendix B**INDIVIDUAL PARTICIPANT ERROR COUNTS****Errors related to the application of the Vietnamese open syllable in production of English closed syllable**

Participant	Total Errors (out of 70 test words)
1	4.00
2	6.00
3	9.00
4	4.00
5	6.00
6	5.00
7	12.00
8	6.00
9	7.00
10	4.00
11	6.00
12	5.00
13	4.00
14	6.00
15	9.00
16	8.00
17	10.00
18	11.00
19	11.00
20	7.00
21	5.00
22	7.00
23	6.00
24	8.00
25	8.00
26	9.00
27	9.00
28	10.00
29	5.00
30	6.00
31	6.00
32	5.00
33	7.00
34	8.00
35	9.00
36	6.00
37	8.00
38	9.00
39	10.00
40	13.00
41	5.00
42	5.00
43	9.00
44	9.00
45	9.00
46	9.00
47	6.00
48	5.00
49	5.00
50	4.00

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Estudio comparativo de las metáforas del deporte y el juego en la prensa económica y política española e inglesa

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ABSTRACT

ES El estudio compara el uso de las metáforas del deporte y del juego en la prensa española e inglesa con el objetivo de hallar las correspondencias conceptuales universales y específicas influidas por el contexto y la cultura de cada lengua (Kövecses, 2015). El trabajo se desarrolla en el marco del enfoque lingüístico cognitivo (Lakoff & Johnson, 1980). Los resultados muestran similitudes y diferencias en la selección de deportes para expresar la misma idea política o económica según la lengua, el contexto y el fin informativo. Este enfoque cognitivo puede facilitar el aprendizaje de vocabulario de LFE (Lenguas para Fines Específicos) y ayudar a la memoria a largo plazo del estudiante ya que este toma conciencia de las expresiones metafóricas al crear asociaciones mentales entre discursos.

Parole chiave: METÁFORAS DEL DEPORTE Y EL JUEGO, COMUNICACIÓN ECONÓMICA Y POLÍTICA, FACTORES CONTEXTUALES, ENSEÑANZA Y APRENDIZAJE DE VOCABULARIO

EN The study compares the use of sports and game metaphors in the Spanish-language and English-language press with the aim of finding universal conceptual correspondences, as well as conceptual correspondences that are influenced by the context and culture of each language (Kövecses, 2015). The work is developed within the framework of the cognitive linguistic approach (Lakoff & Johnson, 1980). The results show similarities and differences according to the language, the context, and the informative purpose in the selection of sports to express political or economic ideas. Results also suggest how this cognitive approach can facilitate the learning of vocabulary in LSP (Languages for Specific Purposes) and help the students' long-term memory as they become aware of metaphorical expressions by creating mental associations between discourses.

Key words: SPORTS AND GAME METAPHORS, ECONOMIC AND POLITICAL COMMUNICATION, CONTEXTUAL FACTORS, TEACHING AND LEARNING VOCABULARY

IT Lo studio mette a confronto l'uso delle metafore dello sport e del gioco nella stampa spagnola e inglese al fine di individuare corrispondenze universali e specifiche influenzate dal contesto e dalla cultura di ognuna delle due lingue (Kövecses, 2015). Il lavoro si sviluppa nell'ambito dell'approccio linguistico cognitivo (Lakoff & Johnson, 1980). I risultati mostrano similarità e differenze nella selezione del tipo di sport per esprimere la stessa idea politica o economica in base alla lingua, al contesto e alla finalità informativa. Tale approccio cognitivo può facilitare l'apprendimento del lessico delle LFS (Lingue per Fini Specifici) e aiutare la memoria a lungo termine dell'apprendente nel momento in cui prende coscienza delle espressioni metaforiche creando associazioni mentali tra i discorsi.

Parole chiave: METAFORE DELLO SPORT E DEL GIOCO, COMUNICAZIONE ECONOMICA E POLITICA, FATTORI CONTESTUALI, INSEGNAMENTO E APPRENDIMENTO DEL LESSICO

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1. Introducción

La metáfora realiza un papel destacado en el estudio del lenguaje y es absolutamente fundamental para descifrar la manera en que este se estructura y la forma en que las personas se relacionan con el entorno que les rodea. Así lo manifiesta Ortega y Gasset (1946, p. 391):

La metáfora es un procedimiento intelectual por cuyo medio conseguimos aprehender lo que se halla más lejos de nuestra potencia conceptual. Con lo más próximo y lo que mejor dominamos, podemos alcanzar contacto mental con lo más remoto y más arisco. Es la metáfora un suplemento a nuestro brazo intelectual, y representa, en lógica, la caña de pescar o el fusil. No se entienda por esto que merced a ella transponemos los límites de lo pensable. Simplemente nos sirve para hacer prácticamente asequible lo que se vislumbra en el confín de nuestra capacidad. Sin ella, habría en nuestro horizonte mental una zona brava que en principio quedaría desconocida e indómita.

Este trabajo sigue la línea marcada por Lakoff y Johnson (1980, 1986) sobre la metáfora conceptual que también desarrollan otros lingüistas (Cuenca & Hilferty, 1999; Forceville & Urios-Aparici, 2010; Kress, 2010). Lakoff y Johnson (1986, p. 39) destacan la presencia de la metáfora no solo en el lenguaje, sino también en nuestro pensamiento y nuestras acciones. Por otro lado, Cuenca y Hilferty manifiestan que las metáforas conceptuales son elementos básicos en la estructuración del mundo, ya que se comportan como “plantillas cognitivas que proporcionan campos semánticos enteros de expresiones metafóricas” (Cuenca & Hilferty, 1999, p. 104). De tal manera que la metáfora está íntimamente asociada a la cultura y al sistema conceptual de un pueblo y se manifiesta en la forma de expresarse sobre el deporte, la economía, la prensa, la política o las cuestiones científicas. Algunos autores ponen en relieve el papel del enfoque cognitivo y del aprendizaje de una segunda lengua (DeKeyser, 2007; Littlemore, 2009; Tyler, 2012). Este enfoque cognitivo puede fomentar la efectividad del aprendizaje del léxico mejorando la adquisición de vocabulario a través de las metáforas del deporte y del juego.

En este estudio pretendo aplicar el mencionado enfoque cognitivo a la enseñanza de las metáforas de la prensa económica provenientes del ámbito deportivo con la intención principal de favorecer un aprendizaje del léxico más efectivo en el ámbito de la enseñanza de LFE. Para conseguir este objetivo fundamental es preciso descubrir las relaciones conceptuales entre ambos dominios. Por tanto, se analiza la penetración de las metáforas del deporte y del juego en el discurso de la economía y la política actual, en español e inglés, bajo el marco de la lingüística cognitiva y se aborda hasta qué extremo esta impregnación está condicionada por el contexto cultural particular de cada lengua a la hora de seleccionar los términos metafóricos.

Es necesario mencionar que el lenguaje del deporte y del juego se comporta de manera muy dinámica, debido a que hoy en día tiene una gran influencia social y, por tanto, capacidad para generar nuevas expresiones en otras áreas, como la economía y la política. Existen estudios anteriores sobre la metáfora del deporte: sobre el ciclismo (Herráez Pindado, 2004), sobre la metáfora visual en el deporte (Gómez-Ortiz, 2004), sobre las metáforas más comunes que emplean discapacitados en el deporte (Smith & Sparkes, 2004), sobre el lenguaje futbolístico (Medina Montero, 2009), sobre el discurso deportivo en general (Lindsey & Halone, 2010) y sobre el tenis (Caballero, 2012), entre otros.

También hay varias publicaciones sobre el comportamiento de la metáfora en la economía y la política (Al-Amar, 2014; Herrera-Soler & White, 2012; Moreno, 2005; Velasco, 2004; White, 2004, entre otros). Así mismo, encontramos estudios que comparan las expresiones metafóricas en español e inglés en las distintas lenguas de especialidad; por ejemplo, en ingeniería (Roldán-Riejos, 2016; Roldán-Riejos & Molina, 2016; Vivanco-Cervero, 2001), en economía (Bielenia-Grajewska, 2009), en ciencia y tecnología (Durán-Escribano & Cuadrado-Eslapez, 2017), por mencionar algunos ejemplos recientes. También encontramos estudios sobre la metáfora del deporte en relación con la retórica de la economía y la política (Charteris-Black, 2011; Koller, 2004).

En lo que se refiere a la enseñanza de la metáfora deportiva, hay aún pocos estudios, Pirsal y Pirsal (2014) lo abordan de forma/planteamiento general, mientras que Stilianou et al. (2013) la aplican a su uso por parte de profesores de educación física.

El presente trabajo estudia las metáforas del deporte y del juego en el contexto de la economía y la política y más concretamente en la prensa española e inglesa en los últimos años, coincidiendo con la todavía actual crisis económica y su intento de explicarla por parte de los responsables políticos y periodistas especialistas. A su vez, el estudio contrastivo del lenguaje metafórico destaca los aspectos contextuales

culturales que intervienen en la estructuración y formación de este. Con este trabajo, pretendo contribuir con una nueva aportación que destaque la importancia del enfoque cognitivo para favorecer el aprendizaje del vocabulario de LFE a través del estudio de las metáforas.

1.1. Aspectos contextuales de la metáfora

Para realizar el estudio de las metáforas seleccionadas es preciso tener en cuenta los factores contextuales en los que se producen estas. Kövecses señala claramente los cinco factores contextuales que intervienen en la creación de metáforas: el entorno físico inmediato, el conocimiento que emisor y receptor tienen del tema y el contexto lingüístico, social y cultural inmediato (Kövecses, 2015, pp. 115-116). En este estudio nos centraremos principalmente en los dos últimos, en los contextos cultural y social.

Cada sociedad desarrolla su propio intercambio comunicativo, social y cultural en la producción de metáforas (Richie, 2006). Es decir, cada sociedad, al tener diferente base política, social, cultural o lingüística, desarrolla también una percepción de la realidad distinta y lo refleja en la selección de sus recursos lingüísticos, entre ellos, sus metáforas.

Por otro lado, Bielenia-Grajewska (2009) destaca el aumento de las metáforas que se emplean en el discurso de la economía y lo justifica por su relación con el lenguaje general. Además añade: “We can observe globalising tendencies in technical, political or business vocabulary but national languages tend to keep their own semantic structures, especially figurative expressions” (pp. 47-48).

Como se ha mencionado anteriormente, los términos metafóricos procedentes del deporte y del juego actualmente están impregnando el lenguaje cotidiano. Podemos observar cómo se han difundido a través del deporte mismo de una manera horizontal o transversal, ya que metáforas que son específicas de uno han terminado empleándose en otros. Así mismo, se observa cómo estos términos han saltado a otras áreas especializadas para expresar conceptos o ideas de la política o de la económica. Este hecho se puede ilustrar con los siguientes ejemplos. Con la expresión metafórica procedente del boxeo “fuera de combate”, que se aplica al equipo que ha sido derrotado o a la defensa o al jugador que han sido superados o a un jugador lesionado; esta expresión se ha trasladado a otros deportes por ejemplo, al bádminton o al tenis y a otros lenguajes de especialidad como pueden ser al ámbito de la economía a la hora de hablar de la economía sumergida o de lucha contra paraísos fiscales. Un ejemplo más sería la expresión metafórica “nadar en aguas turbulentas”, que en principio aparece en la natación y que se emplea también en otros deportes para expresar la misma idea de dificultad en la acción deportiva. Posteriormente, se ha constatado su uso en otros campos de especialidad como en el de la economía o política para expresar también dificultad o problemas. Como veremos más adelante, en este estudio encontramos metáforas de gran riqueza expresiva, pero que conservan y reflejan las particularidades del contexto cultural y social del país.

2. Relaciones entre los distintos dominios

Tras presentar el objetivo del trabajo es necesario justificar el ámbito de investigación al concentrarlo en la relación entre metáforas del deporte y del juego y su correspondencia con la economía y la política.

2.1. La relación entre el deporte y el juego

Es imprescindible aclarar la relación existente entre el deporte y el juego para justificar la razón por la que me propongo estudiar estas metáforas conjuntamente. El diccionario de la Real Academia Española entiende “juego” como el “ejercicio recreativo o de competición sometido a reglas, y en el cual se gana o se pierde”, por ejemplo los juegos de naipes, de ajedrez, de billar, de pelota y también los juegos de azar. Por otro lado, la definición de “deporte” corresponde a la “actividad física, ejercida como juego o competición, cuya práctica supone entrenamiento y sujeción a normas”.

Desde una perspectiva histórica, el juego se remonta a tiempos pasados donde este era lo más popular. Según las sociedades progresaban, se producía una transformación natural del juego en el deporte (Cagigal, 1975; García, 2006; Vidart, 1995). Más adelante, con la llegada de la industrialización, los deportes de equipo se hicieron más populares y aparecieron el fútbol, el baloncesto, el béisbol y el hockey (Mandelbaum, 2004).

Es en el siglo XX cuando se refleja el gran desarrollo del deporte. Tanto es así, que el filósofo Ortega y Gasset considera el deporte como un elemento cultural propio de las sociedades modernas que coopera en el desarrollo de las mismas e incluso sostiene que es el origen del Estado (Ortega y Gasset, 1983, pp. 609-610).

García ahonda en esta idea al afirmar que “las actividades deportivas practicadas por los jóvenes de las civilizaciones antiguas habían dado lugar al origen de los estados políticos. Así pues, el deporte en su origen es juego” (García, 2006, p. 86).

Hoy el juego se considera un elemento del comportamiento humano que se estudia como vehículo transmisor de cultura entre las distintas civilizaciones. Es decir, se estudia su papel en la transformación de la sociedad a lo largo del tiempo. Según las sociedades progresaban, se producía una transformación natural del juego en el deporte. Por esta razón, vamos a considerar conjuntamente el “deporte” y el “juego”, ya que los dos comparten muchas características, entre otras, un fuerte componente de afán competitivo, que es lo que veremos se refleja en el lenguaje metafórico que analizamos más adelante.

2.1.1. Los juegos de azar: las apuestas

Un análisis de las metáforas procedentes del deporte y del juego en la prensa inglesa revela que los dos juegos más populares son los juegos de cartas y los juegos de azar y, más concretamente, las apuestas deportivas. La historia de estas es paralela a la historia del juego. Existen evidencias de apuestas en los juegos de la antigua Grecia con las competiciones atléticas que más tarde se expandieron con el Imperio Romano y los combates de gladiadores y carreras de cuadrigas. Durante la Edad Media se apostaba en los torneos de caballeros y en el tiro al arco. En la Inglaterra de finales del siglo XVIII aparecen locales destinados a apostar principalmente en las carreras de caballos. Posteriormente, a principios del siglo XX comenzó su rápida difusión a través de los periódicos con páginas especializadas en apuestas deportivas (Anderson, Blackshaw, Siekmann, & Janwillem, 2012).

Por esta razón y por su riqueza en generar expresiones metafóricas se estudian las apuestas dentro de los juegos de azar, ya que tienen un papel destacado en la producción de metáforas como se verá más adelante.

2.2. La relación entre el deporte-juego y la economía-política

La política y la economía representan dos mundos independientes entre los que se establece una relación profunda de interacción e interdependencia. Esto es debido a que se necesitan mutuamente, es decir, la economía necesita de respaldo político para poder aplicarse y la política no puede pasar por alto el impacto económico que suponen las decisiones políticas (Mochón, 2009) de tal manera que las decisiones políticas tienen implicaciones económicas y las actividades económicas suponen una actuación política. En el discurso de la prensa frecuentemente aparecen estos dos campos conjuntamente para explicar una decisión política o económica.

El discurso del deporte-juego y de la economía-política mantiene una relación muy cercana en la cual el deporte y el juego son el dominio fuente de donde se toman los conceptos para el dominio meta que, en este caso, son la economía y la política. Se recurre al deporte y al juego con fines informativos y persuasivos para intentar explicar de forma sencilla lo que puede ser muy complejo desde el punto de vista económico y político. Gibbs (1994) menciona que muchas de las metáforas que se emplean en política se apoyan sistemáticamente en los lenguajes del deporte y de la guerra. Además, Kövecses afirma que junto con la guerra, las carreras deportivas y el juego, el deporte es una de los dominios de origen más populares para referirse a la estructura metafórica que tiene a la política en su dominio de destino (Kövecses, 2010).

Igualmente, la economía ha estado construyendo su discurso al tomar sus metáforas del mundo de varias fuentes, de las matemáticas, de los desastres y catástrofes naturales (White, 2004), y de la mecánica (Herrera-Soler & White, 2012, pp. 3-5). A este discurso, coincidiendo con la crisis mundial y la necesidad de explicar a la gente común las políticas económicas, se ha incorporado también con fuerza el mundo del deporte, en su más amplio concepto, incluyendo los juegos deportivos o recreativos y, por extensión, como explicábamos antes, el terreno de las apuestas. Cudd (2007), en su estudio filosófico sobre el paralelismo entre el juego y el capitalismo afirma que:

Throughout the phases of 19th- and 20th- century, capitalism... has come to value similar skills in its executives, managers, and investors... Decision making in games such as poker, chess, and gambling holds many similarities with the decisions made by capitalists and is a rich source of metaphors. (pp. 52-56)

Además, algunas características del deporte son fácilmente trasladables a la economía. Por ejemplo, los deportes y los juegos se practican cara a cara y muchas veces en equipo y se tienen que tomar decisiones estratégicas rápidas; igualmente sucede en la economía y la política. La incorporación de términos

metafóricos del deporte y del juego en la economía y la política se podría explicar con la afirmación de Mouton (2012) sobre las proyecciones conceptuales de las metáforas cuando dice que “Mappings are not a permanent state in a static process, when it is really just a temporary station in a dynamic process” (pp. 49-76). Un ejemplo de proceso dinámico lo tenemos en Kövecses que explica cómo una idea, en su caso la *velocidad* se puede expresar de distintas maneras según el contexto (Kövecses, 2009, p. 12). En nuestro caso la idea de *riesgo* y de *capacidad de decisión*, como se verá más adelante, son características del mundo del deporte y del juego que se trasladan a la economía para expresar acción y competencia continua para arrojar resultados que cambien las cosas.

El presente trabajo se centra principalmente en la metáfora estructural (Lakoff & Johnson 1980, pp. 52-55) *La economía/política es un juego* con la intención de estudiar las correspondencias conceptuales más frecuentes y su comportamiento mediante un corpus elaborado específicamente para este análisis. Así mismo, se estudian qué deportes y juegos son más productivos en cuanto a las metáforas en la prensa económica española e inglesa y los aspectos contextuales que intervienen en su formación.

3. Método de recogida de datos

Para este estudio se han creado dos corpus específicos para los ejemplos en español y para los ejemplos en inglés, con la intención de compararlos. Bowker y Pearson (2002, p. 3) destacan las características de un corpus para fines específicos, entre las que se cuentan: tamaño, número y tipo de textos, medio, materia, autoría, lengua y fecha de publicación. Por otro lado, Meyer (2002, p. 32) señala la importancia de que para poder comparar corpus exista igual proporción en cuanto a los ejemplos o textos con los que se trabaja, como así ocurre en nuestro caso. Por tanto, aplicando estas pautas, se han confeccionado dos corpus específicos seleccionados para los fines de este estudio, cuyo tamaño y composición pueden considerarse suficientes, según los criterios más comúnmente aceptados para los lenguajes de especialidad (Durán-Escribano & Gómez-Ortiz 2008, p. 234). Estos corpus están formados por unas diez mil palabras en español y en inglés. En la Tabla 1 se reflejan los criterios del corpus creado en este estudio para ambas lenguas.

Tabla 1

Criterios de elaboración del corpus específico de metáforas deportivas en el contexto de la economía y la política español/inglés

Medio. Búsqueda electrónica	Prensa española e inglesa en soporte informático
Tipo de textos	Artículos periodísticos
Idioma	Español e inglés
Tema	Economía y política
Fecha de búsqueda	Desde el año 2000 hasta la fecha
N. de términos	100 términos en español; 100 términos en inglés
N. de palabras totales	Corpus español: 10298 palabras; Corpus inglés: 9967 palabras

Con la intención de obtener una visión actualizada de los términos en inglés y en español se han obtenido metáforas del deporte y del juego en artículos de prensa económica y política, tanto en inglés como en español, en soporte informático haciendo búsquedas directamente en los siguientes periódicos: ABC, Cinco Días, El Mundo, El País, Expansión, La Razón y OK Diario, en español. City A.M., BBC, Financial Times, Money Control, The Daily Telegraph, The Economist, The Guardian, The Independent, Press Gazette y The Wall Street Journal, en inglés. Para la creación de los dos corpus se han tenido en cuenta también la relevancia de la prensa en los que han sido publicados los artículos de economía y política y la actualidad de los textos. A su vez, los términos metafóricos también se identificaron en dos diccionarios especializados en metáforas del deporte y el juego, entre otras áreas. El primero *sports talk. A dictionary of sports metaphor* (Palmantier & Ray, 1989) y el segundo el *Diccionario bilingüe de metáforas y metonimias científico-técnicas* (Cuadrado-Esclapez et al., 2016) en su versión española e inglesa. La consulta se hace como referencia para establecer la naturaleza metafórica de los términos extraídos del corpus. Todos los términos metafóricos se trabajaron con el programa informático Wordsmith, lo cual ha facilitado la obtención sistemática de las metáforas. Mediante esta herramienta es posible contextualizar la metáfora con las palabras anteriores y

posteriores. La lectura detenida del término metafórico en su contexto y la consulta a los especialistas en las áreas de deporte y economía determinó la selección de 100 términos metafóricos en cada lengua.

4. Identificación de deportes y juegos: el dominio fuente

En primer lugar se realizó una agrupación semántica por deportes y juegos que mostramos en las tabla 2 sobre el dominio fuente y su término identificador más frecuente en español y en la tabla 3 que refleja el dominio fuente y los términos identificadores más frecuentes en inglés. En este sentido, Kövecses (2010, p. 92) denomina *vehicle terms* los términos identificadores de los campos semánticos y los emplea como primer paso para, a continuación, establecer las relaciones conceptuales entre agrupaciones semánticas.

En nuestro caso, tras seleccionar los términos identificadores en español, reconocemos los siguientes deportes o juegos que constituyen los dominios fuente de las metáforas. En primer lugar aparece el fútbol y después, en orden descendente, la vela, las carreras de coches, el deporte o el juego en general, el boxeo, las apuestas y los juegos de cartas.

Tabla 2

Términos identificadores de los distintos deportes y juegos en español

Dominio fuente	Término identificador del deporte o juego
1. Fútbol (35 %)	Balón, terreno de juego, gol, defensa, grupo de la muerte
2. Vela (15 %)	Bote, rumbo
3. Carreras de coche (15 %)	Boxes, coche, piloto
4. Deporte o juego en general (15 %)	Jugar, jugador, dopado, arena, competición
5. Boxeo (10 %)	Asaltos, lona, cuerdas
6. Apuestas (5 %)	Apuesta
7. Juegos de cartas (5 %)	Barajar, cortar, dar
8. Carreras de caballos (5 %)	Caballo ganador

En el caso del inglés, los deportes o juegos (*vehicle terms*) identificados son, por orden de frecuencia, los juegos de cartas, los juegos de apuestas, las carreras de atletismo, la vela, el deporte y el juego en general, el ajedrez, las carreras de caballos, las carreras de coches, los juegos de dados y la natación.

Tabla 3

Términos identificadores de los distintos deportes y juegos en inglés

Dominio fuente	Término identificador del deporte
1. Cards, poker (20%)	Ace, card, shuffle
2. Bets (20%)	Bets, across-the-board, against all odds, to up the ante
3. Track and field athletics (10%)	Race, pacesetter
4. Sailing (10%)	Boat, stay afloat
5. Sport in general (10%)	Action, play, player
6. Horse riding (10%)	Horse, galloping, trotting
7. Chess (10%)	Moves
8. Car races (10%)	Automatic pilot
9. Swimming (5%)	Swim, swimmer, dive
10. Dice (5%)	Dice, shake-up

Los resultados muestran que la variedad de deportes y juegos que se emplea en inglés es mayor que en español. Además, los dominios fuente de cada lengua también difieren. En inglés las metáforas provienen preferentemente de los juegos de cartas y de las apuestas, sumando 40 ejemplos en total, y en menor medida de las carreras de atletismo, de caballos, de coches, de la vela, del ajedrez, de la natación y del juego de dados. En español los términos metafóricos del deporte y el juego se concentran más en el fútbol, que suma un total de 35 ejemplos, seguido de la vela, las carreras de coches, el boxeo, las apuestas y los juegos de cartas.

4.1. Deportes y juegos específicos de cada lengua

Hay deportes y juegos cuyo dominio fuente está compartido por ambas lenguas, como son el juego de cartas, las carreras de coches, carreras de caballos, la vela y las apuestas. También se hace alusión en ambos corpus a deportes en general sin especificar uno en concreto. Se observa que aunque el juego aparece en ambas lenguas, este aparece menos reflejado en los dominios fuente en español.

Sin embargo, en la muestra recogida hay deportes y juegos que únicamente aparecen en los ejemplos del corpus en español como son el boxeo y, principalmente, el fútbol. Este hecho coincide con los deportes y juegos más populares entre la sociedad española según recientes encuestas de hábitos deportivos en España. (Subdirección General de Estadística y Estudios, 2015, p. 44). Según Rivero, a principios del siglo XX la sociedad española modernizaba sus costumbres con nuevos hábitos culturales importados, principalmente del mundo anglosajón. Una de las costumbres que mayor aceptación popular tuvo aunque con un poco de retraso, fue el deporte, sobre todo el fútbol, el boxeo y el ciclismo, aunque de este último no se han obtenido ejemplos en el corpus de la prensa económica (Rivero, 2011, p. 155).

Entre los deportes y juegos que solo aparecen en el corpus de la prensa inglesa se encuentran el atletismo, el ajedrez, la natación y los dados. Según encuestas de hábitos deportivos realizadas entre la sociedad anglosajona, los deportes más practicados son la carrera, el ciclismo y la natación entre otros (Sport England, 2016, p. 13). Otras fuentes señalan también una gran tradición en las apuestas entre los juegos más populares (Chalabi, 2014). Por otro lado, muchos de los deportes que hoy se practican tuvieron su origen en el Reino Unido; por esta razón, en inglés existe una tradición deportiva y de juego más temprana y desarrollada, por lo que esto explicaría su mayor número de dominios fuente y más presencia y tradición de los juegos particularmente de cartas y de azar con las apuestas.

Lakoff y Johnson (1980), desde una posición universalista, mencionan la existencia de metáforas universales que serían compartidas globalmente, independientemente de la cultura o la sociedad. Sin embargo, Kövecses (2009, 2015) matiza esta idea enfatizando que existen metáforas culturalmente específicas muy influidas por el contexto de una lengua. Esto podría explicar la aparición en el estudio de ambos tipos de expresiones metafóricas, tanto las de tipo general o universal, como las específicas con diferencias en la selección del dominio fuente y de los propios términos metafóricos como veremos.

5. Identificación y comparación del dominio meta

Una vez que tenemos clasificados los deportes y los dominios fuente, es interesante ver la traslación de estos al dominio meta y su uso en el contexto de la economía y la política. A tal fin, se ofrecen algunos ejemplos en las tablas 4 y 5 para ilustrar dichos contextos.

Tabla 4
Ejemplos de relación entre dominios fuente y su traslación al dominio meta en español

Dominio fuente	Traslación al dominio meta
Juego de cartas (póker)	La toma de decisiones en la política económica
Vela	La orientación o estrategia económica
Boxeo	La lucha en la política
Carreras de caballos	La estrategia política económica
Carreras de coches	El riesgo en decisiones político económicas
Fútbol	La competición y la acción
	La competición y la acción
	La estrategia y la negociación
Juego de apuestas	El riesgo

En español, los resultados muestran la preferencia por los términos procedentes del dominio fuente de la vela para expresar en el dominio meta la intención de *orientar* o explicar a los ciudadanos, en una función divulgativa, cómo se debería llevar el rumbo de la economía y de la política, muchas veces con una idea de incertidumbre en el fondo. Para el caso del dominio meta del *riesgo* y *capacidad de decisión*, las expresiones metafóricas se nutren principalmente del dominio fuente del juego de las apuestas. Sin embargo, cuando se refieren a *tácticas* o *estrategias* a seguir por parte de los partidos o de los candidatos, se prefieren términos procedentes del dominio fuente del juego de las cartas o juegos de apuestas.

En inglés, destaca la idea de liderazgo, que no aparece expresada en español. Para liderar o innovar se emplean términos metafóricos procedentes de las carreras de atletismo y del juego de cartas.

Tabla 5

Ejemplos de relación entre dominios fuente y su traslación al dominio meta en inglés

Dominio fuente	Traslación al dominio meta
Juego de cartas (póquer)	Tener ventajas en decisiones de la política económica Liderar la economía
Juego de apuestas	Hacer tabla rasa Arriesgar Negociación política
Vela	Trabajar en equipo
Ajedrez	Controlar un tema Hacer algo sin pensar (piloto automático)
Carreras de atletismo	Ser líder en un campo Innovar
Fútbol	Competición y acción Estrategia y negociación
Juego de apuestas	Tener mucho éxito en los negocios
Juego de dados	Reestructurar una empresa

Al trasladar las expresiones metafóricas del deporte al contexto de la economía y la política se quieren reflejar ideas de estrategia y de táctica, de acción defensiva, de acción de ataque al contrario, de competición, de búsqueda del rumbo o la orientación, de trabajo en equipo o de rivalidad, defensa de intereses y competición. La intención es la de emplear unidades léxicas metafóricas con componente emocional para así aumentar la capacidad expresiva del mensaje y con esto ganarse la cercanía al lector o al público en general. De esta manera al emisor del mensaje le resulta más fácil explicar su visión de la economía o la política.

5.1. Distintos dominios fuente para un solo dominio meta

Dos o más dominios fuente que confluyen en el mismo dominio meta es lo que Ruiz de Mendoza denomina *cadena de metáforas* (Ruiz de Mendoza, 2008). En nuestro estudio este hecho se aprecia en los dominios fuente del juego de cartas, la vela, las carreras de caballos, las carreras de coches, el fútbol, las apuestas, el ajedrez o el juego de dados que confluyen en el mismo dominio meta de la *estrategia*. Del mismo modo, los dominios fuente del boxeo, fútbol, carreras de coches, deporte en general, cartas y carreras de atletismo confluyen en el mismo dominio meta de la *competición y acción*.

Los resultados muestran que los ejemplos en inglés y en español ofrecen una diferencia en la selección de los deportes para expresar la misma idea política o económica. Mientras que los ejemplos españoles tienden a utilizar el fútbol como el principal dominio fuente origen de la metáfora económica o política, los ejemplos ingleses utilizan los juegos, y más específicamente el juego de las cartas, para ilustrar ejemplos de estrategias o decisiones políticas y económicas. Esta preferencia está íntimamente relacionada con la cultura particular y retórica de cada país. Un ejemplo de este caso es “Tenemos que trabajar y no dar un balón por perdido” en español, frente a “The government has upped the ante by negotiating everything” en inglés. En ambos casos la idea que se quiere expresar es la misma, es decir, que se comparten los dominios meta en las dos lenguas, aunque la elección del término metafórico sea distinta; para expresar la misma idea del dominio meta se ha recurrido en cada lengua a un dominio fuente distinto y para ello se ha seleccionado una expresión metafórica distinta.

5.2. Un dominio fuente para distintos dominios meta

Sin embargo, también se observa el caso contrario, que se escoja un solo dominio fuente para expresar ideas distintas en el dominio meta, según la lengua, como se puede ver a continuación en la Tabla 6.

Tabla 6
Comparación de diferencias en los dominios meta

Dominio fuente	Dominio meta inglés	Dominio meta español
Vela	Trabajo en equipo Resistencia	Orientación, estrategia
Carreras de coches	Actuar sin reflexionar	Revisión de la estrategia Precaución ante peligro
Apuestas	Equiparar Arriesgar Negociación Conseguir el éxito	Inversión en rentabilidad
Deporte en general	Estar en desventaja Mostrar energía y decisión	Juego sucio

En este caso, tanto los dominios fuente de la vela, las carreras de coches, las apuestas y el deporte en general se emplean de forma distinta en español y en inglés para expresar distintas ideas en el dominio meta. Como decíamos, Kövecses (2005, p. 22) afirma que el uso de la metáfora se ve afectado por influencias culturales. De la misma opinión es Caballero (2012, p. 725) al afirmar que la metáfora se ve influida por el contexto que le rodea “the need to take into account all the contextual factors (i. e., participants, topic(s), médium, and spatiotemporal context)”. Por otro lado, Skorczynska y Deignan (2006, pp. 87-104) abundan en esta idea de que “intended readership and the primary purpose of the text are important factors in the choice of linguistic metaphor. Differences between these two factors may lead to different patterns, frequencies, and functions of linguistic metaphor in texts even where the topics of the texts are similar.

5.3. Comparación de las relaciones conceptuales

Si tenemos en cuenta la particularidad cultural de cada lengua, en inglés resaltaría principalmente la idea de *riesgo y capacidad de decisión* en el dominio meta que daría lugar a una clasificación de *Las decisiones económicas/políticas son apuestas*. En español, resaltaría un carácter más conservador, de intención de control de la situación con la idea de *estrategia* y precaución para la toma de decisiones en el dominio meta. Esto daría lugar a una clasificación específica de *Las decisiones económicas/políticas son movimientos con control*.

En una clasificación más general y global, la muestra de datos obtenida permite entender el mecanismo cognitivo que subyace al usar las metáforas del deporte cuando se emplean en contextos económico-políticos en la prensa española e inglesa. En resumen, se podrían establecer estas relaciones conceptuales en español: *La economía/política es un partido de fútbol, una navegación, una carrera de coches, un combate de boxeo o una apuesta*. En inglés se podrían establecer estas otras relaciones conceptuales: *La economía/política es un juego de cartas, un juego de apuestas, una carrera de atletismo, una navegación, una carrera de caballos, una partida de ajedrez, una carrera de coches o un juego de dados*.

Las metáforas conceptuales dominantes que abarcan todas estas relaciones conceptuales serían tanto en español como en inglés *La economía/política es un juego*. Las metáforas conceptuales son esquemas abstractos y, mediante el estudio de los resultados obtenidos en este trabajo, observamos los esquemas mentales y culturales que se producen en la percepción del riesgo, de la defensa de las ideas, del trabajo en equipo, del afán competitivo, etc., que en una lengua se asocia a unos deportes y juegos por cuestiones culturales y sociales y en otra lengua con otro deporte y juego por las mismas cuestiones.

6. Implicaciones pedagógicas

Con frecuencia el aprendizaje del vocabulario se ha basado simplemente en inferir el significado de las palabras del contexto y de los morfemas de las mismas. Sin embargo, cada vez más estudiosos se inclinan por diseñar tareas orientadas a un aprendizaje de vocabulario basado en un enfoque cognitivo (Condon, 2008; Cuadrado-Esclapez & Robisco-Martín, 2011; Lazar 2003; MacArthur & Littlemore, 2008). La aplicación

de este enfoque cognitivo a la enseñanza y aprendizaje de EFL favorece la eficacia de la enseñanza de la competencia comunicativa fomentando el uso productivo de la metáfora al hablar y escribir y también ampliando los recursos expresivos del estudiante para mejorar la comunicación. A este respecto, Boers y Lindstromberg (2008) aseguran que

It can help learners attain a more profound understanding of the target language, better remember more words and phrases (owing to greater depth on processing in general and to dual coding in particular), appreciate the link between language and culture and become more confident. (p. 27)

El análisis de las metáforas realizado en el presente estudio puede ser útil al facilitar múltiples actividades que se pueden usar en una clase de LFE como las siguientes propuestas para trabajar en lengua inglesa. En primer lugar, nos centramos en la metáfora conceptual *La economía/política es un juego* como metáfora dominante. Para guiar al estudiante y conseguir concienciarle de la metáfora conceptual mencionada se puede comenzar con la agrupación de términos en campos semánticos que después se pueden categorizar.

Actividad 1: Señala expresiones procedentes del deporte en estas frases (dominio fuente).

*The government has upped the ante by negotiating everything.
The bottom line is that Trump is proposing to cut taxes at a time when government spending, almost two-thirds of which is on automatic pilot, is projected to increase at a much faster pace than tax receipts, according to CBO.*

Actividad 2: Señala de qué deporte crees que se está hablando (dominio fuente).

Es necesario que el alumno reflexione sobre las características o atributos de los términos del deporte que él mismo ha señalado y la cualidad que se proyecta al otro campo de la economía y la política.

Actividad 3: Señala características o cualidades que expresen los anteriores términos vinculados a distintos deportes (dominio fuente y cualidad proyectada).

Por ejemplo: Vela con *orientación*;
Apuestas con *riesgo*;
Carreras con *liderazgo*;
Boxeo con *competición*

Para implicar más activamente al alumno en el trabajo del dominio fuente y la cualidad que se pretende proyectar se le propone esta tarea:

Actividad 4: Busca metáforas en la prensa económica que proyecten cualidades del deporte aplicadas en la economía y la política.

Para trabajar con el dominio meta y la idea proyectada por el emisor a través de la metáfora se propone la siguiente actividad:

Actividad 5: ¿Con qué deporte y qué metáfora expresarías la idea de *estrategia*? Escribe una frase.

Actividad 6: ¿Con qué deporte y metáfora expresarías la idea de *competición*? Escribe una frase.

Actividad 7: ¿Con qué deporte y metáfora expresarías la idea de *riesgo*? Escribe una frase.

Actividad 8: Identifica en estas frases las metáforas deportivas empleadas y las distintas ideas o cualidades que se quieren transmitir.

1) *Is it easier to swim in deep or shallow calm water, or are these the same?* Clinton.

2) *The product is another innovation from the telecommunications company which has since commencement of operations been the pacesetter in the industry.*

Actividad 9: Explica el significado de estas frases.

1) *We're all in the same boat! We are all going to swim or sink together.*

2) *Perhaps these are the tactics of Donald Trump as a wheeler-dealer in the world of business, but they certainly do not befit a statesman or president of the leading global power.*

Para implicar más activamente al alumno en el trabajo del dominio meta y la idea proyectada se le propone esta tarea:

Actividad 10: Reescribe las frases anteriores (Actividades 7 y 8) usando lenguaje literal. Después compáralas las dos versiones y comenta las diferencias en el tono.

Este enfoque consigue que los estudiantes se expresen con más naturalidad en otra lengua. El alumno puede expresar ideas sobre acción, competición o riesgo de forma natural lo que le aporta motivación en su proceso de aprendizaje de la lengua. A la vez también se refuerza la importancia del contexto cultural demostrando que los lenguajes no son sistemas neutrales de codificación, sino que son dinámicos y que se persiguen fines informativos y persuasivos. Además, se favorece que el alumno pueda hacer uso de estrategias comunicativas de un modo más autónomo para él.

7. Conclusión

El objetivo de este trabajo ha sido realizar un estudio contrastivo del lenguaje metafórico del deporte y el juego en el discurso de la economía y la política que aparece en la prensa española e inglesa para poder estudiar su utilidad en el estudio del vocabulario de LEF a través de dichas metáforas. A tal fin, se han tenido en cuenta los factores contextuales que pueden influir en la producción y estructuración metafórica de cada lengua. El estudio revela que aunque existe una metáfora conceptual universal *La economía/política es un juego* para ambas lenguas, existen paralelamente, metáforas específicas de cada cultura debido a factores contextuales culturales y sociales propios de la lengua en cuestión. Al recurrir a términos metafóricos del deporte y del juego se ilustra el mecanismo cognitivo o sistema conceptual al que recurre la prensa española e inglesa para referirse a asuntos económico-políticos.

Se ha constatado la impregnación de la metáfora de estos dominios mencionados en la prensa económica y política con distintas manifestaciones dependiendo del sentido que el escritor quiere trasladar. En ambas lenguas se intenta expresar ideas sobre acción, afán de competición, riesgo, capacidad de negociación, orientación y estrategia para trasladar las ideas importantes en este contexto meta. De esta manera, la producción y estructuración metafórica varía en las dos lenguas, siendo en inglés más rica, ya que acude a un número mayor de deportes y juegos, aunque fundamentalmente a los juegos de cartas y apuestas. Sin embargo, en español, la mayor parte de la producción metafórica proviene del fútbol. Esto quiere decir que la conceptualización del mundo que nos rodea puede cambiar según las culturas.

Este trabajo recoge y compara ejemplos auténticos de metáfora del deporte y del juego en el contexto de la economía y la política en un periodo de tiempo concreto, de la reciente crisis económica. Esperamos que esta aportación abra un espacio para que surjan otros estudios contrastivos, teniendo en cuenta otros contextos, también para profundizar en la penetración de la metáfora del deporte y del juego en otras áreas de especialidad.

Finalmente, creo que el enfoque cognitivo y la instrucción explícita a los alumnos de LFE de las relaciones conceptuales que subyacen tras las metáforas, pueden ayudar a la comprensión y a la retención del vocabulario de forma eficaz y más autónoma.

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El léxico de la ingeniería y su aprendizaje: estudio exploratorio

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ABSTRACT

ES Este artículo presenta una propuesta de aprendizaje del léxico de la ingeniería dentro de ámbito de las LFE (Lenguas para Fines Específicos) a través de un enfoque fraseológico-cognitivo con el objetivo de proporcionar a los alumnos un medio de aprender vocabulario técnico de especialidad de forma fácil y operativa. El procedimiento que proponemos se basa en el uso de agrupaciones temáticas de palabras y locuciones articuladas por medio de la metáfora y/o metonimia lingüística y conceptual. Este estudio fraseológico favorece la comprensión y producción discursiva por medio del establecimiento de nexos y relaciones léxico-semánticas entre expresiones técnicas aparentemente aisladas. Al sistematizar el discurso, el estudio del vocabulario se estructura en distintos marcos conceptuales que permiten establecer asociaciones mentales y posibilitan la retención a largo plazo. Como ejemplo de categorización léxico-conceptual en el campo de la ingeniería de la construcción, describimos el dominio metafórico de los objetos cotidianos, examinando su uso en español y en inglés. El análisis de imágenes de este ámbito permite inferir relaciones analógicas derivadas de factores perceptivos, funcionales o ambos a la vez. Se incluye también un análisis contrastivo español-inglés a fin de establecer la existencia de variaciones léxico-semánticas motivadas por diferencias interculturales.

Palabras clave: LÉXICO DE LA INGENIERÍA, ENFOQUE COGNITIVO Y LFE, FRASEOLOGÍA, APRENDIZAJE DE VOCABULARIO TÉCNICO

EN This paper presents a proposal for engineering lexicon learning within Languages for Specific Purposes, from a cognitive-phraseological perspective. The main aim is to provide students with a simple and user-friendly method to learn technical vocabulary in their specialty. The procedure we propose relies mainly on the use of lexical and conceptual chunks articulated by means of metaphor and/or metonymy. In this respect, this phraseological study serves to foster discursive understanding by establishing lexical-semantic links and by relating apparently disconnected words and expressions. Discourse systematization can structure vocabulary study into conceptual frames that help create mental associations and facilitate memory retention. To illustrate lexical-conceptual categorization in the area of construction engineering, we conduct a study of the metaphorical domain of everyday objects in Spanish and English. An image analysis of this domain reveals that the occurrence of analogical relations can result from perceptual factors, functional factors, or both simultaneously. In addition, a cross-linguistic Spanish-English analysis of semantic and lexical variations showcases linguistic differences that seem to result from cross-cultural differences.

Key words: ENGINEERING LEXICON, PHRASEOLOGY, COGNITIVE APPROACH AND LSP, TECHNICAL VOCABULARY LEARNING

IT Quest'articolo presenta una proposta per l'apprendimento del lessico dell'ingegneria nell'ambito delle lingue per scopi specifici (LSS) attraverso un approccio fraseologico-cognitivo con l'obiettivo di fornire agli apprendenti un modo di imparare il vocabolario tecnico in maniera facile e operativa. Il procedimento che proponiamo si basa sull'uso d'insiemi tematici di parole e locuzioni che ricorrono alla metafora e/o alla metonimia linguistica e concettuale. Questo studio fraseologico favorisce la comprensione e la produzione discorsiva grazie alla creazione di nessi e relazioni lessico-semantiche tra espressioni tecniche apparentemente isolate. Nel sistematizzare il discorso, lo studio del vocabolario si struttura in cornici concettuali distinte che permettono di stabilire associazioni mentali e rendono possibile la memorizzazione a lungo termine. Per esemplificare la categorizzazione lessico-concettuale nel campo dell'ingegneria delle costruzioni descriviamo il dominio metaforico degli oggetti quotidiani, esaminandone l'uso in spagnolo e inglese. L'analisi delle immagini di questo ambito permette di inferire relazioni analogiche derivate da fattori percettivi, funzionali, oppure da entrambi i fattori contemporaneamente. Inoltre, lo studio include un'analisi contrastiva spagnolo-inglese che mostra l'esistenza di variazioni lessico-semantiche motivate da differenze interculturali.

Parole chiave: LESSICO DELL'INGEGNERIA, APPROCCIO COGNITIVO E LSS, FRASEOLOGIA, APPRENDIMENTO DEL VOCABOLARIO TECNICO

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1. Introducción

Este trabajo aborda el estudio del lenguaje de la ingeniería de la construcción desde una perspectiva cognitiva, profundizando en su fraseología y en el uso de ciertos mecanismos cognitivos lingüístico-conceptuales, como la metáfora y la metonimia, en español e inglés. Se plantea trasladar estos fundamentos al aprendizaje del inglés de la ingeniería por parte de alumnos españoles. Tenemos que subrayar que el presente estudio expone la fase exploratoria de su aplicación, por tanto, nuestro objetivo aquí no es la presentación de datos numéricos y conclusivos de su validez, cuestión que queda para posteriores trabajos, sino enunciar su potencial en cuanto a flexibilidad e idoneidad para un tipo de aprendizaje específico. Tomamos como base el marco teórico de la lingüística cognitiva, que señala la no arbitrariedad del lenguaje tanto general como especializado, y defiende su motivación cognitiva y experiencial (Lakoff & Nuñez, 2000; Littlemore, 2009; Radden & Panther, 2004). Las correspondencias analógicas entre lenguaje técnico y lenguaje general merecen ser estudiadas en profundidad para establecer la naturaleza de los enlaces entre uno y otro ámbito. Asimismo, el estudio fraseológico permite facilitar la comprensión y producción discursiva por medio del establecimiento de nexos y relaciones léxico-semánticas entre palabras y expresiones técnicas aparentemente aisladas, problema destacado de la adquisición del vocabulario académico en estudios existentes. Así, Hyland y Tse (2007, p. 251) señalan que “vocabulary is more than individual words acting separately in a discourse”. Por añadidura, los procesos cognitivos más importantes que utilizamos al pensar o al hablar son equivalentes a aquellos que se utilizan en la adquisición o aprendizaje de lenguas. Como ejemplo de esta similitud podemos citar la manera en que establecemos comparaciones, cómo categorizamos, o el modo en que inferimos, hacemos deducciones o adaptamos los significados (Littlemore, 2009, p. 2). En un entorno de lenguas para fines específicos (LFE), los conceptos de adquisición y aprendizaje pueden considerarse como interdependientes (Spolsky, 1985). En el entorno del español como LFE en que nos desenvolvemos, partimos de la realización previa de un análisis de necesidades (*needs analysis*) que nos revela las destrezas lingüísticas que necesitan nuestros alumnos en su entorno profesional, así como el desarrollo específico de cada una de ellas. A este respecto, el resultado del análisis hace hincapié en la comprensión y dominio del vocabulario técnico de especialidad, dada la frecuencia de su uso en el entorno profesional. Una de las formas más efectivas de llevar a cabo esta adquisición es a través de tareas centradas en el significado y en el uso real del lenguaje (Ellis, 2003; Nunan, 2005). Consecuentemente, las actividades diseñadas para los alumnos de LFE implicarían tanto el aprendizaje consciente como la adquisición automática del léxico de especialidad. Van den Branden (2007, pp. 8-9) lo explica con estas palabras: “Tasks are supposed to elicit the kinds of communicative behavior (such as the negotiation for meaning) that naturally arises from performing real-life language tasks, because these are believed to foster language acquisition”. A modo de conclusión se podría afirmar que el tipo de actividad que requiere el aprendizaje por tareas es de tipo lingüístico y adaptado específicamente a los requisitos del mundo real.

Estudios previos sobre el lenguaje técnico de especialidad de la ingeniería de la construcción (Roldán-Riejos, 2016, 2014) mostraban correspondencias léxico-semánticas (*mappings*) entre distintos ámbitos conceptuales. Dichas correspondencias son susceptibles de ser agrupadas en marcos cognitivos que pueden ser de tipo metafórico, es decir un concepto perteneciente a un ámbito expresado por medio de otro perteneciente a un ámbito distinto, aunque relacionado mediante analogía o similitud, o metonímico, por el cual un concepto es expresado por otro que pertenece al mismo ámbito mediante relaciones de contigüidad. Consideramos que la intersección del estudio metonímico-metafórico con la fraseología en el ámbito de la ingeniería representa la novedad de nuestro enfoque. En la literatura revisada no se han encontrado trabajos específicos sobre la motivación cognitiva del lenguaje de la ingeniería combinado con el estudio fraseológico, y que aborden el aprendizaje del lenguaje técnico desde ambas perspectivas. En este sentido, la aplicación conjunta del enfoque cognitivo y fraseológico al aprendizaje del lenguaje de la ingeniería que sugerimos en este estudio es una contribución novedosa y creemos que, a tener en cuenta, dado que enfoques anteriores sobre aprendizaje de vocabulario trataban solamente alguno de estos aspectos por separado. Por ejemplo, Sökmén (1997) estudia los mapas semánticos y las colocaciones, pero sin relacionarlos entre sí, o Bensoussan (1992) defiende el aprendizaje por medio de la presentación de esquemas cognitivos exclusivamente. Por su parte, Chen y Hsiao (2010) propugnan el aprendizaje por medio de la audición de una palabra clave asociada a una imagen mental activadora de su significado en primera lengua, no obstante, la utilidad de este método se reduce a alumnos principiantes.

Hay que mencionar otros trabajos que se aproximan a la perspectiva sugerida en este estudio por tener una orientación cognitiva y fraseológica, como es el caso de Boers y Lindstromberg (2008), que ponen de relieve la idoneidad del enfoque fraseológico para el aprendizaje del vocabulario de una lengua extranjera. A su vez, Meunier y Granger (2008) y Handl (2008) apuestan por la relevancia de la fraseología para proporcionar mayor fluidez en la adquisición de una segunda lengua. Littlemore y Low (2006) recomiendan el uso del lenguaje figurado en la interpretación del significado. Como trabajo que reúne una recopilación de colocaciones léxicas del área del medio ambiente adoptando la teoría cognitiva de marcos para su traducción, citamos a Buendía 2013. Asimismo, en Cuadrado y otros (2016) se incluye una extensa compilación comentada e ilustrada del lenguaje metafórico y metonímico de distintas ramas de la ingeniería y del deporte en un diccionario español-inglés/inglés-español.

En el presente artículo dedicado a la ingeniería de la construcción, se han podido establecer dos puntos principales a partir del análisis de los datos lingüísticos extraídos de corpus recopilado de géneros textuales de índole técnica: 1) la existencia de unidades léxicas metafóricas encuadrables en el ámbito de los objetos cotidianos, 2) la posibilidad de atribuir su uso en lengua de especialidad a factores de carácter perceptivo y/o funcional que son cognitiva o culturalmente compartidos por la comunidad de los ingenieros de la construcción. Particularmente, destacamos en los apartados que siguen 12 ejemplos específicos de categorización léxico-semántica, enumerados a continuación con su traducción literal (no técnica) al inglés: 1) “silla” (*chair*); 2) “asiento” (*seat*), 3) “tablero” (*tableboard*), 4) “cuchara” (*spoon*), 5) “rodillo” (*roller*), 6) “relleno” (*filling*), 7) “bandeja” (*tray*), 8) “vaso” (*glass*), 9) “anillo” (*ring*), 10) “cortina” (*curtain*), 11) “lecho/cama” (*bed*), 12) “aguja” (*needle*). Estos ejemplos se encuadran en el marco conceptual de objetos cotidianos, aquellos de los que tenemos un conocimiento cercano. Dado que tratamos el aprendizaje del lenguaje técnico en inglés, se examinarán las posibles correspondencias técnicas de los ejemplos de español a inglés, así como un análisis cognitivo de las imágenes que los ejemplos representan, seguido, posteriormente, por unas recomendaciones didácticas encaminadas a familiarizar al alumno con el enfoque propuesto mediante un proceso secuencial de aprendizaje.

2. Marco teórico: el enfoque fraseológico-cognitivo

El aprendizaje del vocabulario técnico en lengua extranjera representa un problema para los estudiantes de ingeniería, que generalmente sortean por medio de la memorización de listas que ellos mismos se preparan. Este enfoque nos parece poco productivo no sólo porque es un esfuerzo que no parece aumentar la motivación del aprendizaje, sino porque a la larga no produce frutos y los términos aprendidos se acaban olvidando. Xhaferi (2010) hace notar que para activar la memoria a largo plazo:

instead of words being represented alphabetically, concepts are represented according to their associations to one another. An example is the word ‘blue’ and what usually comes to mind is the sky which is closely associated with blue or ‘red’ usually associated with love. (p. 233)

Igualmente, Morgan y Rinvulcri (2004) postulan que el aprendizaje de vocabulario no se debe hacer de forma mecánica, sino asociativamente. Por otra parte, a los alumnos de ingeniería les cuesta distinguir entre palabras cuyo uso es muy frecuente y las de uso más restringido, entre palabras procedentes del lenguaje general que adquieren un significado específico y aquellas que sólo se encuentran en el lenguaje técnico. Ante este complejo panorama, tiene sentido la propuesta de un enfoque que intente discernir y facilite la adquisición del lenguaje técnico de forma organizada al tener en cuenta la incidencia y uso de las palabras.

Dado que actualmente la fraseología es una disciplina que se encuentra en desarrollo y que aún no existe consenso sobre cómo determinar una unidad fraseológica o una colocación léxica (Granger & Paquot, 2008; Romero, 2007; Gries, 2008), es importante destacar las aportaciones recibidas desde otros paradigmas lingüísticos, como por ejemplo de la lingüística de corpus, que pueden resultar esclarecedoras a este respecto. Así, en la obtención de concordancias contextuales, colocaciones léxicas y significados de uso frecuente, la lingüística de corpus contribuye cuantitativamente, en razón de la frecuencia obtenida, así como cualitativamente al permitir el análisis semántico y cognitivo de la fraseología. Esto último permite asimismo afinar el análisis en la identificación de la metáfora o la metonimia en las colocaciones léxicas. Las colocaciones léxicas han sido definidas como “the patterned way that group words together” (Biber, Conrad & Reppen, 2000, p. 24) y se pueden analizar a lo largo de un continuum que abarcaría desde combinaciones libres (Benson, Benson & Ilson, 2009), generalmente de tipo binario, cuya única ligazón sería de tipo

sintáctico y donde cada componente conserva su significado por separado, hasta expresiones fosilizadas cuyo significado es global, al funcionar como un bloque léxico, ejemplo de ello son los modismos o frases hechas. En este continuum, las colocaciones técnicas pueden situarse en distintos estadios o rangos, dependiendo de su frecuencia y de la interconexión semántica entre sus componentes. A este respecto, podemos aplicar principalmente dos criterios, semántico o estructural, para determinar el grado de lexicalización de la colocación.

Para el criterio semántico se sustituye un componente de la colocación por una palabra parecida. Como ilustración tomemos el caso de *testigo de sondeo*, si lo transformamos a *prueba de sondeo*, aunque se trate del mismo campo semántico (de la cimentación de obra), el significado de la colocación no es equivalente, ya que mientras que en el primer caso los dos integrantes léxicos contribuyen por igual al significado específico de la colocación, que se entiende de forma global y tiene mayor peso que el de cada componente por separado, en *prueba de sondeo* no se aprecia esa misma unidad y de hecho sus componentes se pueden entender por separado. En *testigo de sondeo* se podría decir que el significado individual se ha fusionado o integrado (Fauconnier & Turner, 2002). Por otra parte, el hecho de que *testigo de sondeo* sea metafórico contribuye a reforzar dicha fusión. El segundo criterio es el estructural, que consiste en insertar un cambio de tipo estructural (morfosintáctico). Así, en el caso de *residuos urbanos* vemos que se trata de una colocación consolidada actuando como un bloque de significado, y si fuera transformada a *residuo urbanizado*, el significado sería muy distinto. En la colocación *ariete hidráulico*, si introducimos otra palabra: *ariete de acero hidráulico*, la combinación no funcionaría como tal y la unidad semántica se vería afectada. Se podría afirmar entonces que las colocaciones pueden atravesar distintos estadios en su proceso de lexicalización, si bien esto no implica que todas las colocaciones técnicas se convertirán con el tiempo en lexicalizadas, ya que ese factor dependerá del uso que adquiera en el tiempo. Además, los elementos léxicos de estas colocaciones también están sometidos a procesos metafóricos y metonímicos, en este sentido es importante fijarse en la aportación de la lingüística cognitiva a la fraseología (Rodríguez & Molina, 2007, pp. 177-193).

Según la teoría de la metáfora conceptual (Lakoff, 1996; Lakoff & Johnson, 1980), gran parte de los conceptos que usamos al pensar y al hablar hacen uso de mecanismos cognitivos como son la metáfora y la metonimia. Estos mecanismos permiten conectar distintos ámbitos de la experiencia mediante correspondencias conceptuales y/o lingüísticas cuya estructura es la de ámbito o dominio fuente y ámbito o dominio terminal. En el discurso ordinario se pueden establecer relaciones analógicas, como en la metáfora, de contigüidad, como en la metonimia, de una combinación de ambas o mediante otro tipo de lenguaje figurado, como en la hipérbole, la ironía, el símil, etc. (Burgers, Konijn, & Steen 2016). Por regla general, la metáfora conceptual se expresa en términos de: A ES B, como ilustración recordamos la conocida metáfora conceptual de Lakoff y Johnson (1980) EL AMOR ES UN VIAJE (LOVE IS A JOURNEY), donde se conectan conceptos de ámbitos separados, pero perfectamente entendibles, en ejemplos como *nuestra relación se ha ido a pique* o *su matrimonio avanza a todo gas*. Si bien como indica Littlemore (2009, p. 98), la metáfora lingüística no se rige por las mismas coordenadas que la metáfora conceptual, dado que esta última “involve(s) the drawing together of incongruous domains”, mientras que la metáfora lingüística “involve(s) the drawing together of incongruous words”. Según esto, la metáfora conceptual representa estructuras que suelen generar gran cantidad de pensamiento abstracto, mientras que la metáfora lingüística sirve principalmente para referirse a algo en concreto. En este trabajo se han identificado una serie de metáforas lingüísticas que se pueden derivar de la metáfora conceptual LOS OBJETOS DE CONSTRUCCIÓN SON OBJETOS COTIDIANOS. Dichos objetos resultan familiares por pertenecer al entorno doméstico, pero a su vez se usan como elementos de la ingeniería de la construcción. Por ejemplo, *rodillo* (un utensilio común de cocina empleado para amasar, también se refiere a una máquina de compactar carreteras), o de forma similar, *cama*, *cortina*, o *silla* también son utilizados en la ingeniería, como veremos más adelante. Hemos señalado que las metáforas lingüísticas pueden estar relacionadas con una metáfora conceptual, si bien esto no constituye un requisito necesario. Las metáforas lingüísticas suelen estar regidas por relaciones de semejanza situadas a nivel léxico, que a su vez pueden motivar la creación de unidades léxicas interrelacionadas (Evans, 2013, p. 75). Por ejemplo, *asiento* y *silla* representan unidades léxicas de gran dinamismo semántico, ya que se mueven entre varios subdominios de la ingeniería de la construcción adoptando matices de significado según el contexto, *asiento* forma parte del subdominio de la cimentación y también puede serlo de los materiales de construcción. El significado de *silla* puede oscilar desde *punto de apoyo de un puente* al *elemento que recoge los cables de un puente colgante*, según el contexto. *Banqueta* (que es un tipo de soporte o sujeción de la estructura) es otro ejemplo perteneciente a la misma agrupación léxico-semántica. Según esto, se puede afirmar que la metáfora

lingüística o léxica, lejos de ser estática o fosilizada, funciona dinámicamente, contribuyendo a la creación de significado a demanda por medio de mecanismos de compresión, de extensión o de fusión (Fauconnier & Turner, 2002).

En suma, la meta principal del trabajo es formalizar una propuesta de estudio léxico-semántico que facilite la comprensión y el aprendizaje de la terminología técnica en lengua extranjera. Como apuntan Low y Littlemore (2006, p. 37), “learning occurs where there is some guided, explanatory input about basic meanings and/or about underlying conceptual metaphor, and the learners interact actively with the language (by thinking of examples, discussing, or querying).” Se persigue con ello que los alumnos se familiaricen con el fenómeno de la motivación lingüística y que puedan usar y manejar frecuentes agrupaciones léxicas de la ingeniería de la construcción (colocaciones, determinados grupos verbales o nominales, etc.), así como comprender los conceptos subyacentes a los que responden (Boers & Lindstromberg, 2008).

3. Metodología

Este trabajo se llevó a cabo con alumnos que cursan la asignatura obligatoria Comunicación Oral y Escrita en Lengua Inglesa que consta de 6 créditos ECTS. Su impartición es semestral y los alumnos la realizan en su segundo curso del Grado de Ingeniería Civil y Territorial de la Universidad Politécnica de Madrid. El nivel medio de conocimiento del idioma es de un B2 (MCREL), y este estudio exploratorio se trabajó con un grupo de 70 estudiantes en distintas sesiones durante el curso académico 2016-17.

Uno de los objetivos más importantes dentro del análisis de necesidades de los alumnos de ingeniería de la construcción es emplear con soltura el lenguaje propio de su especialidad en lengua extranjera, en este caso el inglés, con el fin de comunicarse en un entorno internacional. Para ello se necesita alcanzar un dominio profundo del lenguaje específico en primera lengua, que permita establecer comparaciones léxico-semánticas entre ambas. En este sentido, necesitan disponer de una muestra amplia y representativa del repertorio lingüístico de su especialidad tanto en primera lengua como en la lengua objeto de estudio, de manera operativa y ágil para el aprendizaje. Como apuntan Hyland y Tse (2007),

Acquisition clearly needs to be part of a well-planned and sequenced program, with a mix of explicit teaching and incidental learning, a range of activities which focus on elaboration and consolidation, and sufficient information about contexts and definitions (...) the most appropriate starting point for such a program (...) is the student’s specific target context. (p. 151)

Teniendo en cuenta el marco establecido en el análisis de necesidades, nuestra labor como docentes es orientar y diseñar material para que los alumnos se puedan desenvolver de forma adecuada en su ámbito profesional. Dicho material se compone en más de un 60 % de recopilaciones contextuales extraídas de corpus lingüístico, que a su vez procede de los géneros más comunes de la ingeniería de la construcción en inglés y español. El porcentaje restante se nutre de textos también auténticos procedentes de páginas web especializadas en temas técnicos. Para este estudio se ha compilado un corpus que abarca desde 2012 hasta la actualidad compuesto por artículos de investigación publicados en revistas de ingeniería y estudios monográficos de la ingeniería¹. Proceden de páginas web especializadas y de revistas electrónicas con un total aproximado de 30000 palabras. Los archivos obtenidos fueron descargados en el programa de concordancias disponible en Internet ANTCONC, que permite extraer concordancias, colocaciones y palabras clave en contexto. A continuación, se ha procedido a la identificación del lenguaje figurado, en especial la metáfora y metonimia, siguiendo las pautas establecidas por expertos en esta temática (Deignan, 2005). Basándonos en dicho corpus, hemos podido establecer la presencia de metáfora y metonimia lingüística y agrupar sus correspondencias en dominios (*mappings*) de forma temática.

El procedimiento que proponemos incluye los siguientes pasos:

- 1) Partiendo de las principales unidades léxicas encontradas en el corpus lingüístico, se plantean tareas (*task-based activities*) en grupo o en pareja orientadas a la comprensión del significado, entre ellas se

¹ El corpus de los archivos en inglés y español se recopiló en formato bloc de notas. Las revistas de donde se obtuvieron fueron: a) en español: *Revista de Ingeniería Hidráulica y Ambiental (RIHA)*, *Revista de Materiales de Construcción*, *Revista de la Construcción*, *Revista Ingeniería de Construcción RIC*; b) en inglés: *Journal of Advances in Civil Engineering*, *Journal of Civil Engineering Construction Technology*, *International Journal of Pavement Engineering*, *Open Journal of Civil Engineering*, *Tunnelling and Underground Space Technology Journal*.

incluye realizar una lluvia de ideas (*brainstorming*) sobre la temática de ingeniería tratada (por ejemplo, sobre *bridges*) planteando ejemplos que ayuden a diferenciar las expresiones técnicas literales de las no literales (metafóricas, metonímicas). Además, se plantean tareas de clasificación léxica por afinidad semántica y de búsqueda de ejemplos relacionados según el contexto (colocaciones, palabras derivadas, etc.). Dichos ejemplos se agrupan de acuerdo con su significado y/o subdominio. Las destrezas lingüísticas implicadas en estas tareas incluyen la comprensión lectora y oral, así como la producción oral y escrita.

- 2) A continuación, se introduce otra modalidad de actividades, esta vez de tipo multimodal trabajando con imágenes (PowerPoint, vídeos, pósters) y sus correspondencias de significado. El enfoque multimodal para el aprendizaje de una segunda lengua en la ingeniería es relativamente nuevo y, como apuntan Farias, Obilinovic y Orrego (2010), su aplicación como modelo de aprendizaje de lenguas extranjeras se basa en el auge actual de las TIC. Por ejemplo, partiendo de la búsqueda y selección de imágenes ilustrativas del léxico no literal seleccionado en el paso anterior o con otra temática (*highways, concrete, etc.*). En trabajo en pareja o grupal se comentan los rasgos más destacados de la imagen reflejados en el significado. De esta forma se introduce el uso de la metáfora/metonimia, por medio de intervenciones de tipo oral comentando las imágenes y cómo estas enlazan con los conocimientos técnicos previos relacionados, destacando la parte perceptiva y/o funcional que las imágenes suscitan a través de la analogía y la representación. Esta tarea implica la práctica de las destrezas de comprensión y producción oral.
- 3) El siguiente paso sería llevar a cabo un análisis contrastivo en español e inglés de los ejemplos seleccionados y comparar las similitudes y diferencias de los mismos en ambas lenguas de forma escrita y/o hablada. Ello implica verificar si el lenguaje figurado se mantiene en ambas lenguas o si por el contrario hay que recurrir al lenguaje literal. Para esta tarea se utiliza el diccionario y/o glosarios especializados disponibles electrónicamente. Las principales destrezas que conlleva esta etapa son la de producción escrita, la comprensión lectora, la expresión oral, así como la práctica de la traducción.

Durante la realización de las tareas se hace hincapié en la importancia de seguir aprendiendo, practicando y avanzando en el idioma en entornos fuera del aula, ya sea por medio de la lectura o por seguimiento audio-visual, o durante los viajes, al hacer uso del habla en lengua inglesa tanto en contextos profesionales como informales. Las tareas mencionadas se insertan en cada una de las siete unidades didácticas de las que se compone el curso, ordenadas por los principales campos de contenido que componen la ingeniería de la construcción y se complementa con el uso de las fichas tematizadas que acompañan cada unidad. Todo ello se distribuye en el tiempo total disponible, tanto presencial como telemático, representando en total 150 horas de trabajo del alumno.

Con el fin de facilitar el aprendizaje del vocabulario, se proporciona a los alumnos abundante material auténtico y ejemplos estructurados secuencialmente, que se compone de:

- 1) Material escrito: tomado de libros de ingeniería, así como artículos de revistas del sector de la construcción en inglés, procedentes de la biblioteca de la universidad, en formato papel y electrónico.
- 2) Material de audio: grabaciones sobre temas técnicos procedentes de podcasts o conferencias en inglés disponibles en la red de la universidad.
- 3) Material de vídeo: vídeos en inglés de tecnología de la construcción encontrados en línea, (por ejemplo, *Extreme Engineering* o *National Geographic*).

A partir de ahí, se pide la preparación de trabajos acordes con la temática expuesta. Los alumnos pueden elegir entre los siguientes: presentación con PowerPoint de un tema de ingeniería de la construcción de 15 minutos de duración (trabajo en pareja). Presentación de un póster sobre Ingeniería de la Construcción de 15-20 minutos de duración (trabajo en grupos de 3). Actividad de *role-play* en torno a un tema técnico (actividad en grupo de 4-5) durante 20-30 minutos.

Con el fin de satisfacer las exigencias concretas de enseñanza de LFE y, al mismo tiempo de trabajo con léxico auténtico, el contexto donde se sitúan las actividades propuestas parte de:

- Nuestra propia experiencia en el entorno de la enseñanza de lenguas en el campo de la construcción, adquirida a través de contactos regulares y colaboraciones con profesores especialistas y alumnos, y

de nuestra observación de los diferentes textos que componen los estudios de nuestros alumnos, junto con el análisis de necesidades para este perfil de alumnos llevado a cabo en el ámbito académico.

- Materiales de gramática y léxico real de los principales géneros, tanto orales como escritos, que conforman el ámbito comunicativo de los ingenieros, como son los informes de obra, las instrucciones de uso de maquinaria de obra, las presentaciones técnicas, las especificaciones sobre construcción, los artículos científico-técnicos, los informes anuales de las empresas del sector, etc.
- Los requisitos reales del perfil de egresados para encajar en el mercado laboral en esta especialidad.

Para aprovechar las ventajas de este enfoque, la presente propuesta juzga importante el incrementar gradualmente la complejidad de las actividades dirigidas al alumno, tanto en lo que se refiere a las tareas activas donde los estudiantes son protagonistas, como en la búsqueda de textos de especialidad más complejos. Como afirma Robinson (2001, pp. 301-302), “tasks making increasing conceptual/communicative demands increasingly engage cognitive resources, which progressively exploit learning mechanisms leading to greater analysis, modification and restructuring of interlanguage, with consequent performance effects”. Para ello, el enfoque fraseológico y cognitivo que presentamos se fundamenta en el uso de las cuatro destrezas lingüísticas básicas: lectura, escritura, comprensión y producción oral, enmarcadas dentro del contexto profesional de ingeniería de la construcción. Nuestra labor es la de ponerlas en práctica de forma que represente una experiencia real, y que se adapte de forma adecuada a los procesos cognitivos y estilos de aprendizaje propios del colectivo. Resumiendo, diremos que el enfoque cognitivo está interesado, sobre todo, en la función, el significado y el uso del lenguaje, aunque obviamente, también considera la forma. De ahí la necesidad de considerar todos estos factores a la hora de enseñar una lengua. Por ende, recomendamos tener en cuenta los procesos cognitivos más destacados que atraviesa un estudiante de una segunda lengua (McLaughlin, 1987; McLeod & McLaughlin, 1986). El siguiente apartado está destinado a exponer detenidamente la estructura de nuestra propuesta didáctica.

4. Análisis y discusión

Se han seleccionado como objeto de estudio y trabajo para los alumnos una serie de ejemplos de metáforas lingüísticas de uso frecuente en español en el entorno de la ingeniería de la construcción. Los ejemplos seleccionados responden a los criterios siguientes: 1) alta frecuencia de aparición en los corpus manejados, y 2) representan lenguaje no literal capaz de ser agrupado en el marco de conocimiento de los objetos cotidianos. Estos son: *silla*, *asiento*, *tablero*, *cuchara*, *rodillo*, *relleno*, *bandeja*, *vaso*, *anillo*, *cortina*, *lecho/cama*, *aguja*. Evidentemente, se trata de una simple muestra de las metáforas posibles que se pueden identificar dentro de este ámbito. Más ejemplos se pueden encontrar en Roldán y Molina (2015) y en Cuadrado et al. (2016). A fin de ilustrar el proceso seguido, más abajo se detallan las tres fases arriba enunciadas. Comenzando por el análisis léxico-semántico, seguido del estudio de las imágenes y las asociaciones de tipo perceptivo o funcional que estas generan. El estudio de imágenes se cree necesario en una disciplina moderna como la ingeniería, que aborda gran parte de su comunicación y sus conocimientos de forma multimodal (Kress, 2010). La fase última se ilustra con un estudio contrastivo español-inglés que sirve para verificar si la metáfora presenta correspondencias en el segundo idioma.

4.1. Estudio léxico-semántico

Para llevar a cabo el estudio léxico-semántico de los ejemplos anteriormente citados, en primer lugar, se categoriza contextualmente el subdominio al que cada ejemplo pertenece, así *cortina* está dentro del subdominio de la hidrología, que a su vez está comprendido en el dominio de la ingeniería de la construcción. A continuación, se establece la tipología de cada elemento (si existe) junto con las colocaciones léxicas propias de cada ejemplo, en el caso de *asiento* se incluye: *asiento inmediato* o *asiento de fluencia lenta*. Al hablar de colocaciones, nos referimos a grupos léxicos, generalmente compuestos de dos o tres palabras que suelen aparecer juntas con frecuencia, y que aportan otros matices de significado al ámbito original al que pertenecen.

Tabla 1
Muestra de ejemplos estudiados

Ejemplo	Colocaciones léxicas	Significado contextual
asiento Categorías: cimentación, geotecnia, materiales Tipos: dependiendo del tipo de suelo, arcilla, rocas, arenosos Léxico derivado: asentamiento	Asiento inmediato, asiento de consolidación, asiento de fluencia lenta. Dependiendo del edificio: asiento máximo y asiento diferencial.	Designa el asiento que toma una estructura tras haber sido construida, por tanto, parece haber una relación de semejanza con el significado básico de <i>asiento</i> tal como es familiarmente conocido en la vida cotidiana.
silla Categorías: puentes, edificación Léxico derivado: sillar/es	Silla de anclaje, silla de tensado, sillas deslizantes.	Se refiere al apoyo donde descansa una estructura de la construcción; existe analogía con el significado básico de <i>silla</i> .
tablero Categorías: puentes	Tablero inferior, tablero de vigas, comportamiento de tablero.	Si lo comparamos con el significado básico de "conjunto de tablas unidas por el canto" (DRAE), se refiere al suelo de un puente (parte por el todo, metonímico), pero también tiene afinidad con el significado básico (metafórico).
cuchara Categorías: carreteras Léxico derivado: cucharón	Cuchara excavadora, cuchara trituradora, cuchara cribadora, cuchara pulpo, cuchara bivalva, cuchara con dientes.	Alude al mecanismo cóncavo que excava, carga, eleva y descarga terreno; el significado básico de <i>cuchara</i> ayuda a su comprensión.
rodillo Categorías: carreteras Léxico derivado: rulo compactador	Rodillo compactador, rodillo vibratorio, rodillo liso.	El significado contextual de máquina que compacta suelos se basa en el significado básico de <i>rodillo</i> .
relleno Categorías: materiales Léxico derivado: rellenado	Hormigón de relleno, relleno de hormigón.	Alude a materiales de construcción que rellenan un hueco, presenta semejanza con el significado básico.
bandeja Categorías: construcción, estructuras	Bandeja aislante, muro de bandeja, bandejas exteriores.	Es el elemento adosado en un muro para portar rellenos y compensar las cargas; existe semejanza con el significado básico.
vaso Categorías: hidrología	Vaso de almacenamiento, vaso lleno, impermeabilidad del vaso, vaso de la presa.	Referido a una parte de la presa cuyo fin es el de retener agua se basa en el significado básico de contenedor.
anillo Categorías: túneles	Anillo de hormigón, anillo de revestimiento, anillo reforzado, anillo rígido.	Es el elemento circular colocado para revestir el túnel; dada su relación con el significado básico como aro pequeño, se considera metafórico.
cortina Categorías: hidrología	Estabilidad de cortinas, cortina de inyecciones, cortina de tierras, cortina de enrocamiento, análisis de cortinas.	Designa una barrera de diversos materiales para atajar un río o arroyo, y está basado en el significado básico de <i>cortina</i> .
aguja Categorías: estructura Tipos: paralelas, horizontales; atraviesan el muro y lo recalzan a través de una serie de aberturas.	Pilotes-aguja (micropilotes)	Su significado contextual es de viga horizontal con aberturas capaz de atravesar un muro; se asemeja con el significado básico.
cama / lecho Categorías: cimentación	Lecho de rocas, lecho alto, lecho marino, lecho elástico, lecho superior de la zapata. Doble cama de refuerzo, cama de arena, cama de soporte, relleno en una cama de apoyo.	Es la base de hormigón, arena o grava para la colocación de tuberías o similar en forma horizontal; existe analogía con el significado básico.

En el ejemplo de *asiento*, las distintas colocaciones describen que, dependiendo de la velocidad y el modo en que se asienta la estructura, el ingeniero decide actuar de uno u otro modo. Las colocaciones léxicas proporcionan significados de gran relevancia dentro del ámbito al que pertenecen, muchas veces funcionando como un bloque léxico. Las colocaciones pertenecen al terreno de la fraseología y con frecuencia su uso no es arbitrario, sino motivado (Littlemore, 2009, p. 82). Por añadidura, se especifica el léxico derivado de cada unidad léxica, punto que resulta fundamental al demostrar que el proceso de creación de significado, junto con su correspondencia léxica, es un proceso inacabado y abierto, que sigue permanentemente en construcción. Este punto atañe a la presencia de pautas fraseológicas que aparecen en el significado metafórico de las palabras (Deignan, 2005; Littlemore, 2009). La parte final del estudio establece la base metafórica de los ejemplos analizados por medio del método de identificación de metáfora del grupo Pragglejaz (2007). Según este método, el significado de la unidad léxica se determina por el contexto, siendo posteriormente comparado con el significado básico de la palabra manifestado en diferentes contextos. En este sentido, el significado básico se distingue por ser más concreto e inmediato para la comprensión, está relacionado con la acción y la experiencia corporal, y es más preciso y antiguo que el contextual. Si de la comparación entre ambos significados se deduce que, si a pesar de las diferencias que presente con el básico, su comprensión se basa en el mismo, entonces sería metafórico (Pragglejaz Group, 2007, pp. 3-4). A este respecto, debemos subrayar la importancia del contexto (situación, espacio físico, participantes) y del cotexto (lo dicho antes y lo que viene después) para el enfoque cognitivo del aprendizaje (Skehan, 1998).

En la Tabla 1 se muestran los ejemplos estudiados según la estructura arriba citada: a) categoría de la ingeniería de la construcción a la que pertenecen, b) tipología o clase subsecuente, c) colocaciones léxicas y d) léxico derivado y e) su entidad metafórica tras el cotejo del significado básico del ejemplo con el contextual (Pragglejaz Group, 2007), referido a la ingeniería de la construcción.

4.2. Estudio de las imágenes

La representación en imágenes² es de gran utilidad en la ingeniería para clarificar la interpretación del significado. La metáfora relaciona distintos ámbitos de significado y esta correlación se facilita con la imagen, ya que se pueden presentar variaciones léxicas según la lengua (Roldán-Riejos, 2016; Roldán-Riejos & Molina, 2016). Por ejemplo, *vaso* equivale en inglés técnico a *basin*, y puesto que léxicamente no son intercambiables, es posible interpretar su significado correcto por medio de la imagen. Las propiedades de la imagen van más allá de servir de complemento a la parte textual (Moya & Pinar, 2009). A este respecto, las relaciones de semejanza entre diversos dominios se pueden captar más fácilmente por medio de la percepción sensorial, en este caso a través de la vista, que permite reconocer una imagen, por ejemplo la del *vaso* de una presa, mediante sus características físicas, su geometría, su color, su tamaño, etc., o el *anillo* de un túnel. Además de las semejanzas físicas, también puede haber semejanzas funcionales, por ejemplo en la *cortina* de una presa, que divide el curso de un río. A continuación exploramos estas propiedades en los ejemplos representados.

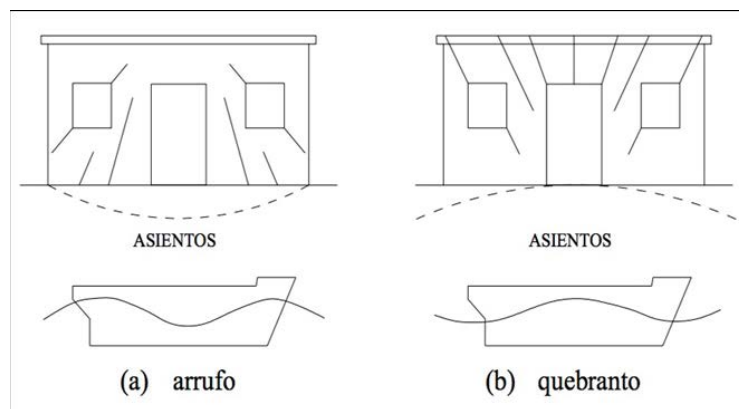


Figura 1. Asiento. Dado que la estructura crea un asiento en la cimentación debido a sus cargas, se trata de una afinidad de tipo funcional.

² Dibujos realizados por Carolina del Barrio Narváez.

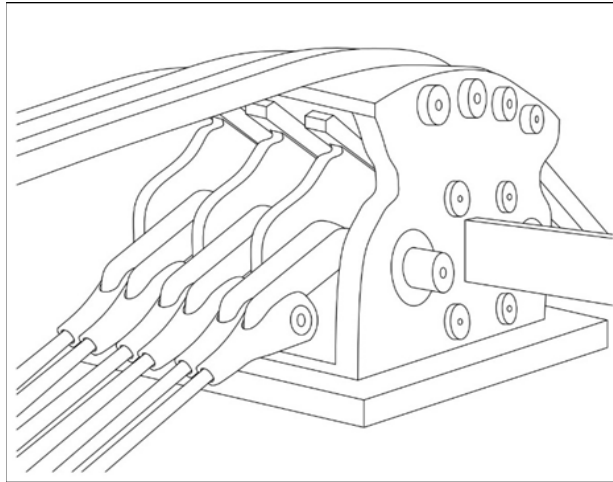


Figura 2. Silla. Elemento de un puente colgante donde van insertos o “sentados” los cables de sujeción del puente. Afinidad funcional y también perceptiva.

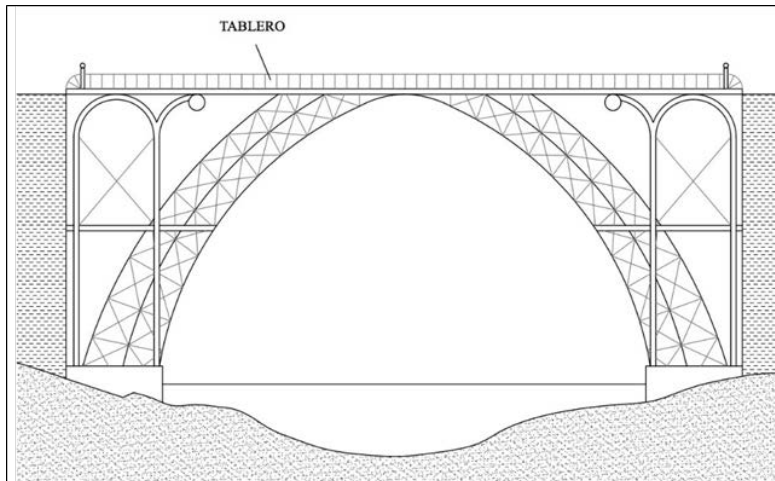


Figura 3. Tablero de puente. En este caso, es el firme o suelo por el que se circula o se camina. Semejanza de tipo perceptivo y funcional.

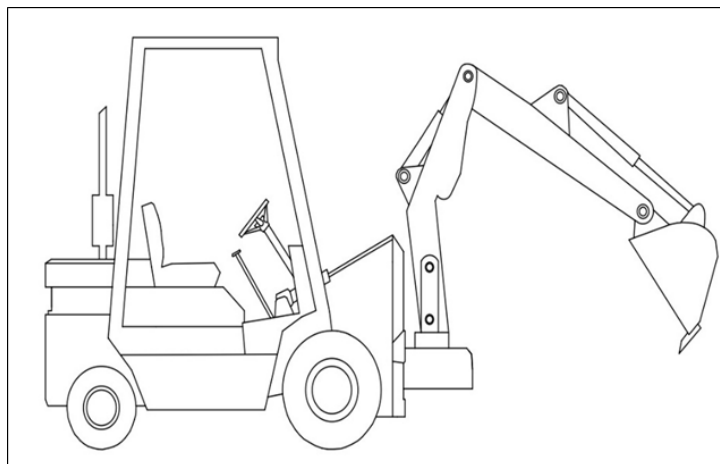


Figura 4. Cuchara. Cuchara de máquina excavadora que extrae y transporta tierra. Afinidad funcional y perceptiva.

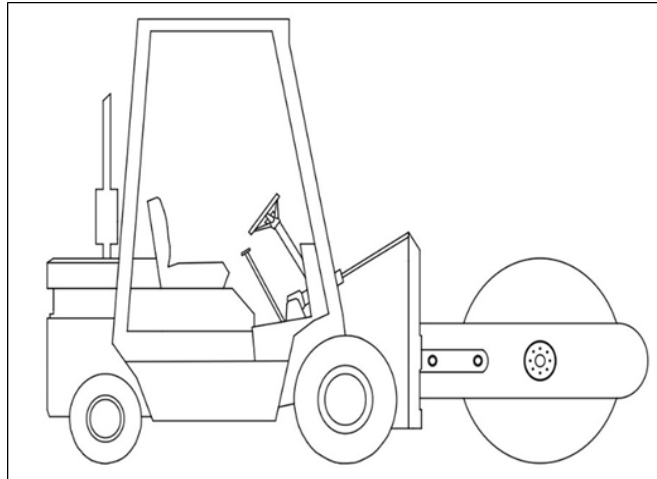


Figura 5. Rodillo. Máquina-rodillo de compactación de suelos. Similitud funcional y perceptiva.

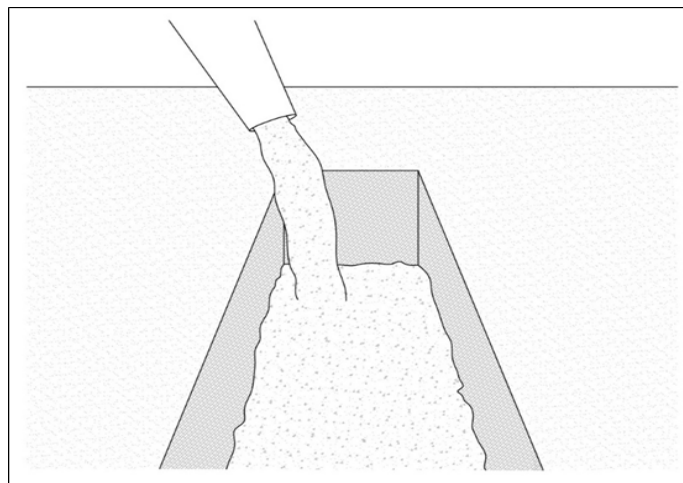


Figura 6. Relleno de hormigón o mezcla de mortero. Afinidad funcional y perceptiva.

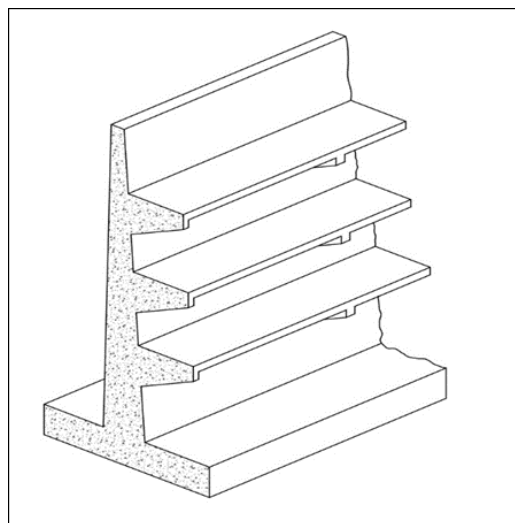


Figura 7. Bandeja de muro. Para reforzar y sostener el muro. Semejanza perceptiva y funcional.

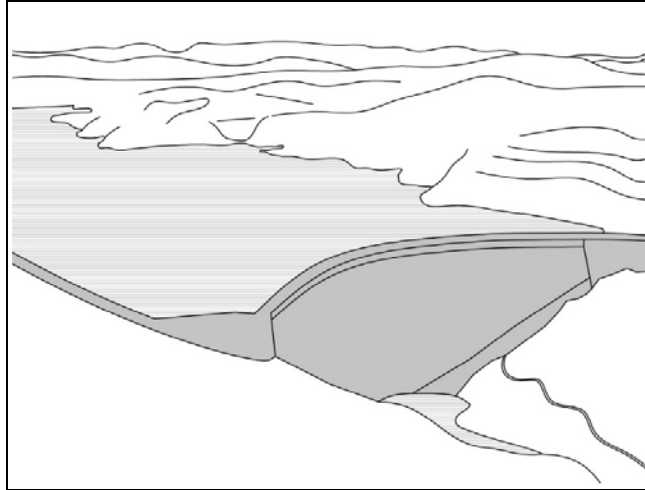


Figura 8. Vaso (de la presa). Función: almacenar agua para diversos usos. Afinidad funcional y perceptiva.

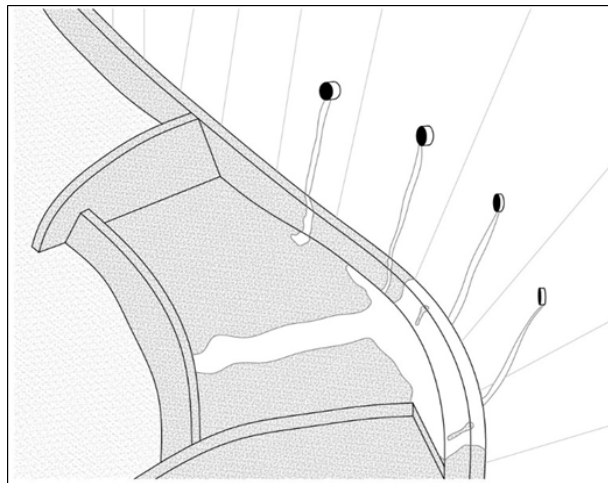


Figura 9. Anillo de túnel. Función: servir de revestimiento y soporte del túnel. Afinidad perceptiva.

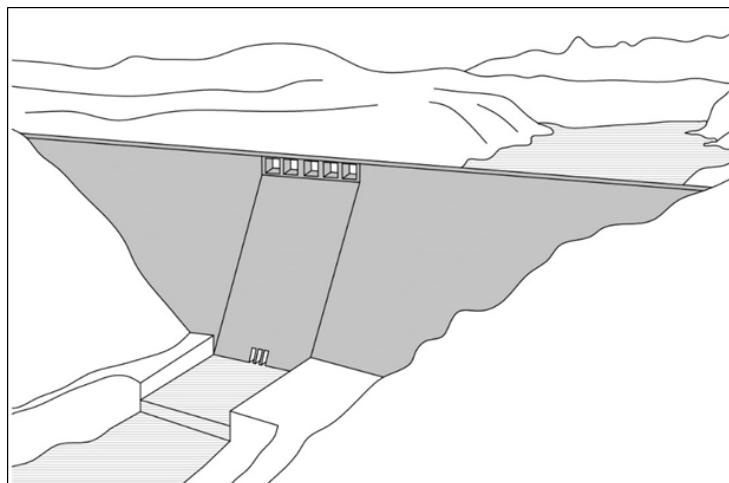


Figura 10. Cortina de la presa. Pantalla de hormigón o material que recubre la presa. Analogía funcional y perceptiva.

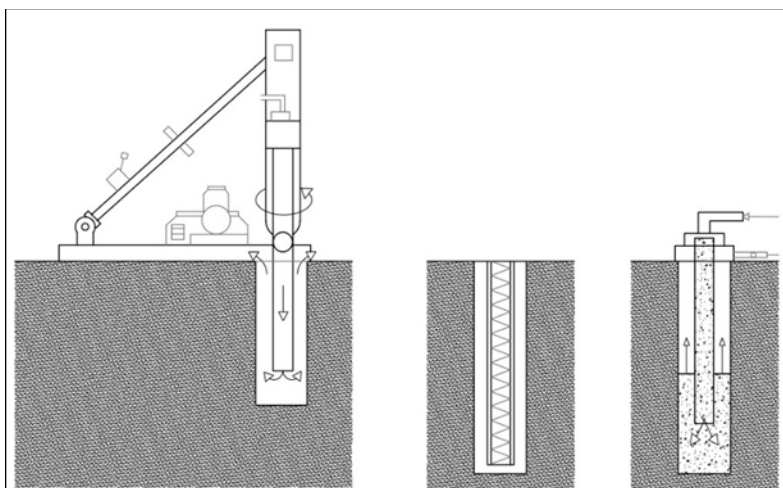


Figura 11. Aguja. Viga o pilote aguja. Elemento que traspasa el muro, enganchándolo. Analogía funcional y perceptiva.

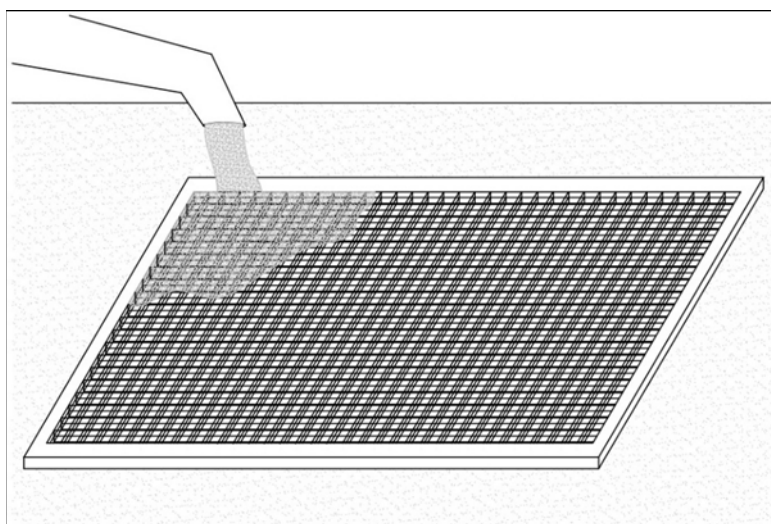


Figura 12. Cama o lecho. Superficie de sujeción del hormigón que sirve de refuerzo. Analogía perceptiva y funcional.

Como se puede observar en las imágenes de las Figuras 1-12, la mayor parte de los ejemplos combinan la afinidad funcional y perceptiva. Siendo la primera aquella que se repite en todos los ejemplos, por ello se puede concluir que la metáfora de tipo funcional prima en el dominio de los objetos de estudio.

4.3. Análisis contrastivo

Considerando que nuestros alumnos están inmersos en el aprendizaje de inglés como lengua extranjera, es pertinente realizar un análisis comparativo de correspondencia semántico-léxica en ambas lenguas, que se muestra en la Tabla 2. En ella se engloban la siguiente información: 1) la equivalencia en inglés de los ejemplos designados, 2) si se produce metáfora lingüística en inglés, 3) si la metáfora lingüística en inglés pertenece al ámbito de los objetos cotidianos, 4) los distintos dominios y subdominios de las correspondencias en inglés. Podemos colegir que el grado de metaforicidad entre ambas lenguas es alto, puesto que el número de metáforas lingüísticas es muy similar (con la excepción de *levee*, que es una palabra técnica). No obstante, cuatro de estas metáforas en inglés pertenecen a ámbitos totalmente diferentes (hípico, legal y náutico) y tres de ellas, aunque comparten el mismo ámbito de los objetos cotidianos, tienen otra correspondencia léxico-semántica distinta del español (*lavabo*, *cubo* y *anillo*) con varios subdominios (baño,

herramientas, accesorio). Estos ejemplos demuestran que aunque se puedan encontrar casos equivalentes, la metáfora lingüística se refleja de forma diferente en distintas lenguas y culturas (Kövecses, 2005).

Tabla 2

Muestra de análisis contrastivo entre metáforas lingüísticas

Metáfora (español)	Equivalente (inglés)	Metáfora lingüística en ambas lenguas	Dominio compartido	Dominio (inglés)
a. silla	saddle	sí	no	hípico
b. asiento	settlement	sí	no	legal
c. tablero	deck	sí	no	náutico
d. bandeja	tray	sí	sí	objetos cotidianos
e. lecho/cama	bed	sí	sí	objetos cotidianos
f. vaso	basin	sí	*sí	*baño
g. cuchara	bucket, scoop	sí	*sí	*utensilios
h. relleno	filling	sí	sí	objetos cotidianos
i. rodillo	roller	sí	sí	objetos cotidianos
j. cortina	leeve	no	no	técnico
k. aguja	needle	sí	sí	objetos cotidianos
l. anillo	ring	sí	*sí	*accesorios

Nota: el asterisco (*) indica aquellas metáforas en inglés con una correspondencia léxico-semántica distinta del español y con diferentes subdominios del dominio principal "objetos cotidianos".

5. Implicaciones para el aprendizaje

En este apartado se tratan las implicaciones derivadas del estudio de la estructuración motivada del lenguaje de la ingeniería y las ventajas de su adaptación a la enseñanza. Anteriormente hemos detallado el proceso propuesto que comprende tres etapas delimitadas y secuenciadas. Por otra parte, para completar el estudio fraseológico, el uso de diversas fichas temáticas en la lengua de aprendizaje que recogen el vocabulario y las expresiones lingüísticas de la ingeniería de la construcción en inglés estructuradas en metáforas conceptuales y agrupadas con sus correspondientes manifestaciones léxicas son de gran utilidad. La presentación de estas fichas se puede realizar de forma directa en el aula o por otro medio (virtualmente por internet en alguna plataforma educativa como Moodle), pudiéndose realizar su explotación tanto como trabajo presencial como en un entorno fuera del aula. Las Fichas 1, 2 y 3, recogidas como muestra en el Anexo, contienen ejemplos representativos de las mismas y recogen su configuración. En primer lugar, se presenta un apartado etimológico en inglés de la palabra que designa el tema enunciado, con una historia léxico-semántica de su evolución y la transcripción fonológica de su pronunciación, que se practica en clase. Se considera importante que el alumno perciba que los enunciados más importantes de su especialidad tienen una motivación etimológica y han seguido una evolución temporal. Este aspecto ayuda a la comprensión del significado y a explorar sus posibles conexiones léxicas en distintos idiomas (cognados, palabras derivadas, etc.). A continuación, se exponen metáforas con el formato A ES B, que incluyen la presencia de dos o más dominios distintos de significado, pero a la vez interconectados por alguna relación de semejanza. Estas metáforas funcionan como grandes marcos que engloban la fraseología y su interacción con la temática tratada en forma de unidades y colocaciones léxicas, palabras derivadas, etc. En las fichas además se insertan imágenes ilustrativas del tema y tareas interrelacionadas con el contenido diseñadas para la participación directa del alumno. Cada ficha incluye la práctica de las cuatro destrezas lingüísticas (comprensión lectora y oral y producción oral y escrita). Finalmente se incluyen unos enlaces a internet que amplían la información sobre el tema. El objetivo general de este material consiste en proporcionar una base efectiva para la construcción de nexos léxico-semánticos que faciliten el aprendizaje del vocabulario por asociación cognitiva y por campos semánticos, lo que aumenta el grado de retención y comprensión.

Los alumnos manejan estas fichas y se acostumbran a abordar la fraseología de la ingeniería en inglés de forma sistematizada, en lugar de estudiar los términos de forma aislada y desconectada. Aunque los datos manejados hasta ahora no son conclusivos, se está constatando al comparar las puntuaciones de evaluación continua y las finales de dos cursos académicos consecutivos una mejora en la evaluación de los alumnos. Además, durante las tareas realizadas, los profesores hemos detectado a través de entrevistas y tutorías que el sistema ha facilitado la retención de vocabulario y que parece haber aumentado el grado de atención y motivación.

6. Conclusiones

Este trabajo se ha ocupado de abordar el estudio del léxico en el lenguaje de la ingeniería de la construcción desde el prisma de la lingüística cognitiva y la fraseología, enfoque que considera al lenguaje como motivado y respondiendo a unas pautas léxico-semánticas, con frecuencia formuladas de forma metafórica. Por medio del análisis léxico-semántico, el estudio de imágenes y el análisis lingüístico contrastivo, se ha intentado demostrar la adaptación al aprendizaje de LFE del enfoque fraseológico y cognitivo, Y la posibilidad de sistematizar el lenguaje técnico, entendido como vocabulario, y hacerlo más manejable y aprendible en lengua extranjera, facilitando así su asimilación y utilización por parte del alumno de lenguas. Como se ha recalcado anteriormente, el presente estudio está enfocado a exponer la fase exploratoria de aplicación de este método y en este sentido trabajos posteriores se ocuparán de dar a conocer más detalles y cifras numéricas de su desarrollo. No obstante, los primeros resultados de su aplicación recogidos son satisfactorios tanto en la evaluación continua como durante el transcurso de las tareas realizadas.

Un objetivo a medio y largo plazo del estudio es lograr que el uso de fichas tematizadas permita al alumno adquirir unas pautas y estrategias organizativas del lenguaje que le ayuden a seguir aprendiendo en el futuro (*long-life learning*) de forma autónoma y con facilidad. Aplicaciones similares enfocadas a otros ámbitos del lenguaje especializado pueden resultar de gran utilidad a estudiantes de otras disciplinas. Los trabajos que intentan adaptar la teoría lingüística al aprendizaje de forma práctica exploran la capacidad innovadora de la educación en sus distintos niveles y refuerzan la investigación aplicada. Nuestra principal aportación confía en haber podido referenciar el funcionamiento de mecanismos cognitivos en el lenguaje, en este caso de especialidad, así como que la estructuración del léxico en lugar de ser arbitraria, parece seguir unas pautas y que su estudio puede favorecer el aprendizaje.

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Anexo

Modelos de fichas temáticas

FICHA 1 - PERSPECTIVES ON DAMS

I. Word History

DAM (S) / dæm z/

"water barrier," early 14thc., probably from Old Norse *damr* or Middle Dutch *dam*, both from Proto-Germanic **dammaz* (source also of Old Frisian *dam*, German *Damm*), which is of unknown origin. 12th c. *mulnedam* 'mill-dam'. ME *demme*.

II. Look at this:

A DAM IS A CONTAINER

Dams retain/store water for *drinking, irrigation, industry, hydroelectricity*.... They include *intake* (water to be collected), *outlet, storage basin, bucket*...

Dams have volumetric capacity: *full/empty/semi full/semi empty*... They can become *blocked (debris....)*

They consist of *reservoirs* that can allow *navigation*. Dams can *lower or raise water level: water pressure*.

Dams are useful in *drought/flooding* periods.

A DAM IS AN OBSTACLE/BARRIER

Dams *divert* rivers, can cause the water to slow down and create *silt* (*sediment*), can affect *fish habitat* (salmon), agriculture....

Dam's elements include *dikes, cofferdams, foundations, cores, embankments, aprons, crests, curtains, dental works, faces, plunge pools, toes, weirs, locks, chambers, tunnels, abutments*....

A DAM IS A SINK

Dams include the construction of elements that take care of excess water (*drainage*): *spillways, gates*.... Likewise: *canals, channels, pipelines, chutes, culverts, ditches, filters, sluices, trashracks*...

They serve to control *flooding* and mitigate *dry seasons/regions*.

Dams may have problems like *seepage, spills, cracking*...

WATER IS A FORCE

Horizontal force of water, *water thrust*, *upstream water pressure*, control the *flow volume/amount*, a *hydraulic jump* (of water), *flooding, falling water*...

Problems: *seepage, spills, hydraulic jump*....



Myponga Dam (Australia)

<https://pixabay.com/es/australia-presa-lago-el-agua-r%C3%ADo-1908782/>

III. Look for examples that match the following mapping in English and Spanish, describe them verbally to your partner and write them down (Pair work):

A DAM IS A LIVING BEING

E.g. A dam has *lifespan/lifetime/life expectancy*. A dam can *age*. It can *damage*. A dam can be *monitored*. It has *toes, faces, can creep, have aprons, dental works, blankets, curtains, buckets*...

IV. Look for words that frequently appear together and that are connected with the examples above. Find other Spanish words similar in meaning and compare them with English ones.

FICHA 2 - PERSPECTIVES ON HIGHWAYS

I. Word History

HIGHWAYS /haɪweɪz/

Old English heahweg: "main road from one town to another" high (adj.) with the sense of "main" + way (n.). High street (Old English heahstræte) was the word before 17th c. applied to highways and main roads, whether in the country or town, especially one of the Roman roads. The word HIGHWAY refers to the elevated agger, the mound or hill of the Roman road formed by earth thrown from the side of ditches toward the centre. In old England these raised, or high ways were under the protection of the King's peace and open to public, unrestricted travel as distinguished from byways, or private roads.

II. Look at this:

A HIGHWAY IS A PATH/NETWORK

It can have multiple connections: *various types of roads, motorways, junctions, turnpikes, intersections, crossovers, roundabouts, connections....*

BUILDING A HIGHWAY IS FILLING A CAVITY

We have various *layers, lifts or courses*. We fill it with *concrete, aggregates, crushed stone, asphalt, tar, tarmac, granular material....*

It has various parts: *median strip, shoulders, lanes, roadway, ditches...*

A HIGHWAY IS A MOUND

Highways consist of *embankments, slopes, ditches, elevations, superelevations, uphill/downhill...*

TRAFFIC IS A LIQUID/FLUID

Traffic can be *light or heavy, fluid, clear, dense*. There may be *(traffic) jams, retentions*.

A ROAD IS AN ARTERY

A road can be *congested, blocked, clear, need by-pass(es), have retentions*,



Bangkok (Thailand)

<https://pixabay.com/es/aire-bangkok-ciudad-noche-2178705/>

III. Group work. Search for more examples for each of the groups above and share it with your partners explaining their main features to each other.

More information:

<https://www.youtube.com/watch?v=WJaQoSWmStU> (Super highways)

<https://www.wirtgen-group.com/en/technologies/new-road-construction/>

FICHA 3 - PERSPECTIVES ON BRIDGES

I. Word History

BRIDGE (S) /brɪdʒ/brɪdʒɪs/

OE brycg, brycgian "causeway over a ravine or river," Old English *brycge*, from Proto-Germanic **brugjo* (source also of Old Saxon *bruggia*, Old Norse *bryggia*, Old Frisian *brigge*, Dutch *brug*, Old High German *brucca*, German *Brücke*), from PIE root **bhru* "log, beam," hence "wooden causeway" (source also of Gaulish *briva* "bridge," Old Church Slavonic *bruvuno* "beam," Serbian *brv* "footbridge"). The original notion is of a beam or log.

II. Look at this:

A BRIDGE IS A PATH/A PLATFORM/

Bridges can be used by pedestrians, bicycles, railways, or vehicles. Bridges have *spans*, *lanes*, *a roadway*... They must have *foundations*, *abutments*, *piers*...

Sometimes they need to have a specific *shape to be aerodynamic and stable; to resist turbulences, vibrations*...

A BRIDGE IS A LINK

The link can be fixed or movable (bascule, lift, swing, tilting) with one or two arms that can open in various directions. They could have *cables, wires*...

They require different construction techniques: *piles, caissons, trusses, arches, cofferdams, piers, scaffolding, falsework, keying, lattice, trusses, arches, anchorages, dampers, GPS guidance*...

A BRIDGE IS A SHIP

Bridges must have suitable shapes. They have *decks*. Bridge elements can be: *spars/masts/pylons, stays, cables, wires, ties, saddles, towers, reels*...

They need *anchorage(s), dolphins*, special protection against seawater action...

They can be subject to *wind, water forces, quakes, tides*...

They must be *flexible, slender, light, stable, resilient*...



Seri Wawasan bridge (Malaysia)

<https://pixabay.com/es/puente-r%C3%ADo-reflexi3n-el-agua-hito-2633700/>

III. Group work. Find more similar examples related to bridges and insert them into their corresponding group (s). Do the same in Spanish and compare the examples with your partners, describing them orally.

IV. Write down about the different types of bridges that you know. Specify how each element is used for and underline the words that collocate together. Do the same in Spanish.

More information:

<http://pghbridges.com/basics.htm>

<http://www.madehow.com/Volume-5/Suspension-Bridge.html>

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Lingüística hispánica actual: libro de texto, guía didáctica y portal digital

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ABSTRACT

ES Esta reseña describe los tres componentes centrales del proyecto editorial *Lingüística hispánica actual*, que incluye el libro de texto *Introducción a la lingüística hispánica actual: teoría y práctica* (Muñoz-Basols, Moreno, Taboada, & Lacorte, 2017), la guía didáctica *Lingüística hispánica actual: guía didáctica y materiales de apoyo* (Muñoz-Basols y Lacorte, 2018), y el *Portal de lingüística hispánica / Hispanic Linguistics Portal* www.hispaniclinguistics.com (Muñoz-Basols, dir., 2017). Los tres componentes se integran para presentar de manera práctica, dinámica y actual los temas centrales de la lingüística hispánica actual y sus áreas disciplinares asociadas.

Palabras clave: LINGÜÍSTICA HISPÁNICA, ENSEÑANZA DEL ESPAÑOL, ADQUISICIÓN DE SEGUNDAS LENGUAS, INVESTIGACIÓN PEDAGÓGICA, HUMANIDADES DIGITALES

EN This review describes the three main components of the editorial project *Lingüística hispánica actual*, which includes the textbook, *Introducción a la lingüística hispánica actual: teoría y práctica* (Muñoz-Basols, Moreno, Taboada, & Lacorte, 2017), the teaching guide, *Lingüística hispánica actual: guía didáctica y materiales de apoyo* (Muñoz-Basols y Lacorte, 2018), and the web portal, *Portal de lingüística hispánica / Hispanic Linguistics Portal* www.hispaniclinguistics.com (Muñoz-Basols, dir., 2017). The three components are integrated to present the central themes of Hispanic linguistics and its neighboring disciplines in a practical, dynamic, and up-to-date manner.

Key words: HISPANIC LINGUISTICS, SPANISH LANGUAGE TEACHING, SECOND LANGUAGE ACQUISITION, PEDAGOGICAL RESEARCH, DIGITAL HUMANITIES

IT Questa recensione descrive i tre componenti principali del progetto editoriale *Lingüística hispánica actual*, che comprende il libro di testo *Introducción a la lingüística hispánica actual: teoría y práctica* (Muñoz-Basols, , Moreno, Taboada, & Lacorte, 2017), la guida docente *Lingüística hispánica actual: guía didáctica y materiales de apoyo* (Muñoz-Basols y Lacorte, 2018), e il portale digitale *Portal de lingüística hispánica / Hispanic Linguistics Portal* www.hispaniclinguistics.com (Muñoz-Basols, dir., 2017). I tre componenti sono integrati con l'obiettivo di presentare i temi centrali della linguistica ispanica e delle discipline associate a questo campo in modo pratico, dinamico e attuale.

Parole chiave: LINGUISTICA ISPANICA, INSEGNAMENTO DELLO SPAGNOLO, ACQUISIZIONE DI LINGUE SECONDE, RICERCA PEDAGOGICA, UMANISTICA DIGITALE

1. Introducción

La lengua española continúa ocupando un lugar fundamental entre las lenguas del mundo, tanto por su extensión geográfica como por la creciente cantidad de sus hablantes (Instituto Cervantes, 2017):

(...) 477 millones de personas tienen el español como lengua materna. A su vez, el grupo de usuarios potenciales de español en el mundo (cifra que aglutina al grupo de dominio nativo, el grupo de competencia limitada y el grupo de aprendices de lengua extranjera) supera los 572 millones.

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Comprensiblemente, el interés por avanzar en el conocimiento del español tanto de aprendientes de segundas lenguas como de los nativos hablantes crece a la par que la expansión de esta lengua global, y ha acrecentado, en los últimos años, el interés disciplinar en la lingüística hispana por parte de investigadores, docentes y estudiantes. En este contexto, la propuesta de Javier Muñoz-Basols y colegas viene a ocupar un lugar especial en los estudios pedagógicos de la disciplina.

El proyecto *Lingüística hispánica actual* se constituye de tres componentes claramente interconectados, tanto en sus objetivos generales como en su organización y secuenciación, incluyendo el manual *Introducción a la lingüística hispana actual: teoría y práctica* (ILHA), de los autores Javier Muñoz-Basols (University of Oxford), Nina Moreno (University of South Carolina), Inma Taboada (University of Illinois at Chicago) y Manel Lacorte (University of Maryland); la guía didáctica *Lingüística hispánica actual. Guía Didáctica y materiales de apoyo* (LHAGD) de Javier Muñoz-Basols y Manel Lacorte y, finalmente, el *Portal de Lingüística Hispánica* (PLH, <http://hispaniclinguistics.com>), de acceso libre y gratuito. La integración de estos tres recursos permite acceder de manera directa a los temas centrales que actualmente son relevantes para el estudio de la lingüística hispana, al tiempo que la claridad con que se desarrolla el contenido permite profundizar el conocimiento sobre el español de aprendientes. Los tres componentes del proyecto integran una sólida aproximación explicativa a los temas centrales para el estudio de la lingüística del español. La revisión que sigue a continuación se centra en cada componente de forma aislada y concluye con una revisión integradora considerando las posibilidades metodológicas que ofrece el empleo combinado de los tres recursos.

2. Introducción a la lingüística hispana actual: teoría y práctica (ILHA)

El texto de ILHA se organiza en una introducción general para el instructor y ocho capítulos dedicados a las áreas centrales de la lingüística hispana; cada capítulo sigue un formato unificado: a) una breve introducción al tema y los objetivos; b) desarrollo del contenido conceptual dividido en secciones, cada una de las cuales incluye actividades de comprensión y expansión; c) proyectos de investigación sobre los temas tratados; d) bibliografía fundamental, brevemente anotada; e) un listado español-inglés de los conceptos clave del capítulo, y f) bibliografía complementaria especializada. Las secciones, junto con sus objetivos, están específicamente presentadas en la tabla 'Estructura de los capítulos' en la página 5 de la Introducción. Esta organización sistemática facilita el abordaje pedagógico de los distintos temas y presenta un buen balance entre el desarrollo teórico, la reflexión y la práctica. Los primeros seis capítulos presentan el estudio de la lingüística hispana en términos generales a partir de los campos tradicionales que van desde las unidades mínimas hasta la lengua en uso: conceptos centrales de lingüística general y sus áreas disciplinares en el capítulo 1, fonética y fonología del español en el capítulo 2; morfología española en el capítulo 3; sintaxis en el capítulo 4; semántica y pragmática en el capítulo 5, y la historia de la lengua española en el capítulo 6. De manera innovadora, el texto incluye dos capítulos que se centran en temas de interés actual: en el capítulo 7 se desarrolla una visión integral de la variación en el mundo hispanohablante, mientras que el capítulo 8 se enfoca en la adquisición del español como segunda lengua. Esta organización y selección temática logra el objetivo que sus autores plantean: "al escoger los temas sobre los que versa cada uno de los ocho capítulos de los que consta este libro, se ha pretendido elaborar una introducción a la lingüística hispana que sea amplia y estimulante (Muñoz-Basols, Moreno, Taboada, & Lacorte, 2017, p. 2).

A continuación, se describe de manera breve el contenido y actividades de cada capítulo. En primer lugar, el texto se inicia con el capítulo general sobre conceptos centrales en lingüística, dividido en siete subsecciones; estas incluyen definiciones centrales, el estudio del lenguaje y la comunicación, las áreas disciplinares de la lingüística, y los enfoques contemporáneos transdisciplinares. Las explicaciones cuentan con gráficos y tablas para esquematizar los contenidos centrales. Se integran también actividades para los aprendientes que incluyen identificar, comparar y contrastar, definir y analizar los conceptos expuestos. El capítulo, como todos los capítulos subsiguientes, culmina con la presentación de cuatro "Proyectos de investigación"; los proyectos se describen posteriormente en la reseña. El capítulo 2 se enfoca en temas de fonología y fonética del español; las primeras secciones describen integralmente el sistema vocálico y consonántico del español y su sistema silábico para luego concentrarse en temas de fonética articulatoria. El capítulo incluye instrucciones precisas para el trabajo de transcripción fonológica y ejercicios de práctica. Las secciones finales se centran en los rasgos suprasegmentales, incluyendo la acentuación. El tercer capítulo trata de temas generales de morfología española; una vez que se presentan los conceptos centrales de morfema, raíz y afijo, se pasa al análisis de la formación de palabras en español, las categorías léxicas y gramaticales, para concluir con temas relevantes de flexión del sustantivo y del verbo. De particular interés es

el estudio sistemático de la morfología verbal, que desglosa cada una de las particulares propiedades formales del verbo —un tema que usualmente presenta grandes dificultades para los aprendientes— con una buena selección de ejemplos y soporte gráfico para clarificar la complejidad del sistema verbal español. El capítulo 4, *Sintaxis: la estructura de las oraciones*, se inicia con una breve explicación sobre las operaciones para determinar el estatuto de los constituyentes, proveyendo a los aprendientes con herramientas básicas del análisis sintáctico. El capítulo explora la constitución de sintagmas y funciones oracionales, claramente descritos por medio de representaciones arbóreas. Las siguientes secciones exploran las estructuras oracionales complejas y presenta una breve síntesis sobre el orden de constituyentes SVO en diversas estructuras oracionales del español. El capítulo 5 se centra en la lengua en uso, incluyendo los enfoques teóricos actuales de semántica y pragmática. El recorrido incluye una revisión prolija de la conceptualización del significado, incluyendo denotación, connotación, relaciones semánticas, papeles temáticos y los significados figurados. Las secciones de pragmática repasan los modelos analíticos fundamentales del campo (los actos de habla en Austin y Searle, las máximas de Grice, la teoría de la relevancia) con ejemplos útiles para comprender los procesos de intencionalidad, codificación, ostensión, inferencia, y contextualización. Las secciones finales se centran en la investigación sobre la cortesía lingüística y los estudios sobre la ironía y el humor, ambos temas de gran interés actual. El capítulo 6 describe la evolución del español por medio de conceptos centrales de la lingüística diacrónica; de especial interés resultan las secciones 6.4, el cambio de las sibilantes y de la yod en el devenir de la lengua del castellano medieval al español moderno, y la sección 6.6 que explora los préstamos léxicos que han ingresado al vocabulario español a lo largo de su historia. El capítulo 7 examina uno de los temas fundamentales de la lingüística hispánica contemporánea: la diversidad del español. El capítulo explora de manera amplia los distintos tipos de variación que presenta el sistema del español, enfatizando su estatuto de lengua global. Se exploran las características dialectales de la lengua en España y Latinoamérica, que son consolidadas por medio de actividades con ejemplos auditivos de diferentes corpus. La sección final se enfoca en el español *en y de* los Estados Unidos, e incluye información actual sobre la formación y características de esta variedad, las generaciones sociolingüísticas de sus hablantes, y los fenómenos característicos de la alternancia de códigos que subyace al popular término *espanglish*. El texto concluye con el capítulo dedicado a la adquisición y los procesos de aprendizaje y enseñanza del español como segunda lengua (L2); las primeras secciones desarrollan los conceptos interrelacionados de adquisición y aprendizaje de primera y segunda lengua, bilingüismo y multilingüismo, y factores que impactan al aprender otras lenguas. Las secciones siguientes revisan sucintamente los modelos pedagógicos que históricamente han influenciado la pedagogía de segundas lenguas, para concluir con una sección sobre marcos institucionales, evaluación y tecnología en la enseñanza-aprendizaje del español como L2.

3. *Linguística hispánica actual. Guía didáctica y materiales de apoyo (LHAGD)*

El segundo componente de este proyecto es *Lingüística hispánica actual: guía didáctica y materiales de apoyo* (Muñoz-Basols & Lacorte, 2018; LHAGD), cuyo objetivo primario es servir como suplemento de los materiales presentados en el manual ILHA para facilitar su implementación pedagógica en diferentes contextos. Al mismo tiempo, “este libro pretende ir más allá, al estar concebido como material de apoyo para complementar explicaciones teóricas sobre las principales áreas de la lingüística [...] o integrar tareas adicionales en cualquier curso sobre lingüística hispánica.” (2018, p. ix). Esto es, LHAGD no es simplemente un ‘libro del instructor’ o un compendio de respuestas a las actividades del manual, sino que integra explicaciones específicas para resolver dichas actividades, a la vez que añade actividades de ampliación a cada uno de los ejercicios del manual, para profundizar o complementar el conocimiento en desarrollo.

Estructurada en ocho capítulos que reflejan la estructura de ILHA, la Guía incluye en cada capítulo las siguientes secciones: 1) cada actividad del manual con su respuesta, presentada de forma elaborada y completa; 2) actividades de ampliación para complementar las actividades iniciales; 3) los proyectos de investigación del capítulo correspondiente; 4) preguntas de ensayo; y 5) un glosario bilingüe español-inglés de los conceptos centrales de la unidad para una rápida referencia. El texto finaliza con una prolija bibliografía muy actual, que complementa de manera efectiva las referencias que ofrece ILHA al final de cada capítulo.

Los ejercicios de ampliación son, en su mayoría, actividades interactivas orales para desarrollar en parejas o en grupos, y cuya implementación otorga mayor dinamismo a la clase mientras que se consolida la comprensión de los temas. Al completar las actividades de ampliación los aprendientes tienen la posibilidad de explorar, de diferentes maneras, los conceptos teóricos expuestos y comprobar su valor explicativo al analizar el español en uso. Como ejemplo, en el capítulo de *Semántica y Pragmática*, se ofrece la siguiente

consigna de corte lúdico para expandir la comprensión de las relaciones semánticas entre palabras (Muñoz-Basols & Lacorte 2018, p. 160):

Se puede anunciar a los estudiantes que, en parejas o grupos, activarán vocabulario que ya conocen pero que posiblemente hace un tiempo que no emplean. De esta forma, el profesor dirá un hiperónimo en voz alta, por ejemplo ‘herbívoro’, y los estudiantes tendrán que escribir el mayor número de hipónimos que puedan recordar en 1 minuto. Ganará el equipo que mayor número de hiperónimos haya sabido encontrar.

Como se ha descrito anteriormente, LHAGD ofrece en la Sección 4 de cada capítulo una lista de consignas para la escritura de ensayos; estas consignas pueden fácilmente constituirse como parte de la evaluación, tanto formativa como sumativa, de los aprendientes, o puede incluirse como suplemento al trabajo de los proyectos de investigación. Cada consigna puede fácilmente modificarse para cumplir con los criterios evaluativos del curso en cuestión y por esto simplifican el trabajo del docente a la hora de organizar la programación del curso.

Es importante notar que los autores han dedicado especial atención al soporte gráfico en los dos textos: tanto ILHA como LHAGD contienen tablas, gráficos, mapas y modelos visuales para apoyar el desarrollo explicativo de los temas más complejos y para guiar con ejemplos prácticos el trabajo del estudiante con las actividades. Por ejemplo, la actividad sobre el uso de sufijos derivativos (ILHA, actividad 16, p. 87) incluye un cuadro central en el que se anotan varios sufijos de derivación nominal y adjetival; a continuación, una tabla en blanco permite que los estudiantes clasifiquen los tipos de sufijos y propongan ejemplos. Esta organización facilita que el aprendiente se concentre en la tarea y al mismo tiempo la tabla misma, ya revisada, le sirva como material de referencia. En cuanto a los gráficos con valor explicativo, se han incorporado diferentes diseños para señalar relaciones, indicar procesos o simplemente describir la constitución de un cierto concepto. Por ejemplo, en ILHA, p. 294, un simple esquema de relaciones de dependencia muestra la extensión de lenguas europeas a partir del nodo central indoeuropeo, mientras que un mapa de Europa indica la distribución de las familias lingüísticas en la región.

4. Portal de Lingüística Hispánica (PLH)

El tercer elemento de este proyecto es el Portal de Lingüística Hispana (PLH), desarrollado por Javier Muñoz-Basols (University of Oxford) con la colaboración de Elisa Gironzetti (University of Maryland) y el auspicio de una beca Hispanex (Dirección de Política e Industrias Culturales del Libro, Ministerio de Educación, Cultura y Deporte del Gobierno de España, 2016). Este proyecto de humanidades digitales se presenta como un espacio virtual novedoso, cuidadosamente integrado y alineado con los dos recursos mencionados anteriormente, ILHA y LHAGD. El portal, de acceso libre y gratuito, se centra en los ocho temas descritos anteriormente y los complementa por medio de lecturas, materiales audiovisuales, actividades y un gran número de enlaces hacia sitios especializados en las diferentes temáticas de la lingüística hispana. Aunque es un complemento valioso de los dos textos del proyecto, el PLH puede utilizarse de manera autónoma ya que cuenta con una extensa lista de recursos y referencias bibliográficas, lo que permite trabajar cada tema de forma independiente.

El enlace inicial al PLH dirige al lector a una breve introducción que describe sucintamente su objetivo central, “contribuir a la difusión e investigación de la lingüística hispana”, y presenta las ocho secciones en que se organiza el sitio (conceptos fundamentales; fonología y fonética; morfología; sintaxis; semántica y pragmática; historia de la lengua; variación; adquisición). Se ha optado por un diseño limpio y simple, con uso cuidadoso de tipografía y colores para facilitar la navegación entre las diferentes secciones; este diseño es consistente en todos sus componentes, y el acceso a cada sección se realiza intuitivamente por medio de una selección de enlaces internos. El menú de navegación ubicado en el margen superior derecho lista los enlaces a los ocho temas centrales ya presentados, e incluye en la sección final enlaces a la presentación del portal, el glosario, y la información de contacto.

Cada sección temática se integra directamente con el contenido presentado en el capítulo correspondiente de ILHA, lo que crea una transición muy clara entre el material gráfico y el contenido digital. Cada una de las ocho áreas temáticas del portal se subdivide en siete secciones que incluyen: 1) una breve presentación del tema, 2) las actividades del libro, 3) recursos prácticos, 4) temas de investigación, 5) grupos de investigación, 6) conceptos clave, y 7) bibliografía fundamental, como se ve en el menú abierto de la Sección 3, Morfología, en la Figura 1.

Cabe destacar dos áreas en las que los autores han logrado un muy buen balance entre contenido, aproximación pedagógica e inclusión de recursos. En primer lugar, los *Recursos prácticos* han sido cuidadosamente seleccionados para, por una parte, completar la información sobre el tema de la sección, y, por otro lado, hacer accesibles recursos digitales diversos (que incluyen enlaces a proyectos de investigación en marcha, videos con transcripciones, atlas interactivos, corpus digitales de distinto tipo, *listservs*, etc.) simplificando el trabajo docente de encontrar materiales audiovisuales y/o digitales para suplementar el desarrollo del tema. Los distintos recursos incorporados son también una valiosa herramienta para la investigación, al presentar contenidos actualizados que facilitan el acceso directo a estos; por ejemplo, se incluyen enlaces a programas especializados como ser un ‘silabeador’ del español (Fonología y Fonética, <http://hispaniclinguistics.com/fonologia-fonetica/recursos-practicos/>) o a corpus digitales, como COREMAH (Semántica y Pragmática, <http://hispaniclinguistics.com/semantica-pragmatica/recursos-practicos/>).



Figura 1. Menú inicial y subsecciones bajo el tema 3, Morfología.

En segundo lugar, los *Temas de investigación* están basados en las cuatro propuestas de investigación con que se concluye cada capítulo de ILHA, integrando de manera efectiva la aproximación pedagógica basada en la investigación guiada (*guided inquiry-based approach*, Justice et al., 2007). Cada proyecto enfoca un área disciplinar específica, presentando al lector consignas de trabajo dinámicas que le permitan, ante todo “potenciar la reflexión conjunta en el aula sobre la estructura y el uso del idioma” (IHLA, p. 6). Cada proyecto presentado en el IHLA cuenta con su contraparte en el PHL, que incluye todas las herramientas y materiales esenciales para completar la investigación. Por ejemplo, en la unidad sobre variación y diversidad lingüística del español, el proyecto tres tiene como consigna investigar la diversidad de un país hispanoparlante considerando datos demográficos y variantes de uso; la consigna incluye dos enlaces a *Ethnologue* (<https://www.ethnologue.com/>) y a la versión digital del libro *El español en contacto con otras lenguas* (Klee & Lynch, 2008). Ambos recursos son suficientes en sí mismos para completar la consigna, a la vez que son punto de partida para una exploración más profunda del tema. Es muy fácil imaginar el contexto de un curso donde los estudiantes, divididos en grupos, se encargan de investigar la variación del español en un país diferente para luego compartir en la clase los resultados obtenidos, ya sea por medio de exposiciones más tradicionales o con presentaciones multimediáticas. Es evidente que los proyectos han sido pensados para lograr los objetivos centrales de la pedagogía basada en la investigación, especialmente en cuanto a la integración y profundización reflexiva del conocimiento, así como al desarrollo de habilidades investigadoras, al tiempo que el aprendiente avanza hacia una mayor independencia y autogestión del propio aprendizaje (Alfieri, Brooks, Aldrich, & Tenenbaum, 2011).

El último componente destacado del portal es el *Glosario*, constituido por más de 500 entradas ordenadas alfabéticamente. Además de presentar una definición sucinta del concepto, se ha establecido un proceso de hiper-vinculación de dos maneras para expandir la información inicial; por una parte, al seleccionar la opción *Leer más*, se abre una pantalla nueva en la que aparece la definición completa junto con un listado de enlaces a otras entradas en el glosario, reforzando la interconexión entre los conceptos y fenómenos lingüísticos, como se ve en la Figura 2. A su vez, en varias de las entradas se incluyen términos subrayados que, al seleccionarlos con el ratón, abren una ventana secundaria que incluye una definición más completa que remite a un autor o fuente específica.

(teaching proficiency through reading and storytelling, TPRS)

Método de enseñanza creado por Blaine Ray en la década de los noventa que se basa en el trabajo de James Asher (véase método de respuesta física total). Su objetivo principal es la fluidez del aprendiente, a la cual se llega mediante la audición repetitiva de la lectura de un cuento.

Artículos relacionados:

- [Adquisición](#)
- [Conceptos y términos clave - Adquisición](#)

[« Volver al glosario](#)

Figura 2. Ejemplo de una entrada completa del *Glosario*, que incluye la opción *Leer más*.

5. Conclusiones

Los tres componentes de este proyecto, IHLA, LIAGD y PLH, se presentan como recursos pedagógicos altamente flexibles, lo que permite su utilización de maneras diversas en diferentes contextos académicos; el manual, junto con la guía didáctica, pueden constituir la bibliografía central de un curso de grado sobre lingüística general en el contexto académico hispanoparlante, o en un curso sobre lingüística hispánica en contextos anglófonos. Los capítulos, trabajados de forma individual junto con los recursos disponibles del portal, pueden integrarse fácilmente en cursos de gramática española avanzada, sociolingüística o adquisición y enseñanza del español, así como constituir parte de las referencias en un curso de nivel de posgrado. Tanto instructores como estudiantes van a encontrar en este proyecto tripartito un trabajo interesado en la claridad de la explicación pedagógica que no deja de lado el rigor de la investigación disciplinar, y que invita a la reflexión y comprensión crítica de los componentes y procesos que configuran la lengua española.

Al considerar las tres obras en su totalidad, es posible afirmar que este proyecto multimodal se diferencia claramente de otras perspectivas en el estudio de la lingüística hispánica —véase por ejemplo los manuales introductorios de Azevedo, 2009 y Hualde *et al.*, 2010, o el más reciente de Díaz-Campos *et al.*, 2017 — tanto por su organización específicamente pedagógica, manifiesta en la precisión y concisión de las explicaciones y las numerosas actividades diseñadas para sustentar el proceso de aprendizaje, así como por las posibilidades didácticas que los tres componentes ofrecen tanto al instructor como al aprendiente. La extensa bibliografía, así como todos los recursos accesibles en el portal digital son una fuente valiosa para investigadores interesados en encontrar información actual seleccionada y organizada con criterios rigurosos. Es evidente que el objetivo central de los autores de aunar de manera explícita y eficaz contenidos, metodología y reflexión para crear “un recurso pedagógico, práctico y actual” (ILHA, p. 1) para quienes se interesen en profundizar su conocimiento de la compleja realidad de la lengua española, ha sido alcanzado con creces.

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Book Review

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ABSTRACT

EN This piece reviews David Gramling's *The Invention of Monolingualism* (Bloomsbury, 2016), winner of the 2018 American Association for Applied Linguistics book award. With the prevalence of academic discourse on bi/multilingualism, this book takes on the under-explored notion of monolingualism. Drawing from a range of disciplines, including applied linguistics, literary studies, translation studies, and comparative world literature, Gramling raises important questions about monolingualism, how the term is used, and understandings of language itself.

Key words: LINGUISTICS, LANGUAGE IDEOLOGIES, MONOLINGUALISM, MULTILINGUALISM, LITERARY STUDIES, TRANSLATION STUDIES, WORLD LITERATURE, CITIZENSHIP

ES Este texto es una crítica sobre *The Invention of Monolingualism* de David Gramling (Bloomsbury, 2016), ganador del premio 2018 de la American Association for Applied Linguistics. En un momento en que el discurso académico se enfoca en el bi/multilingüismo, este libro explora la poco investigada noción de monolingüismo. Utilizando datos de varias disciplinas (lingüística aplicada, estudios literarios, estudios de traducción y literatura mundial comparada), Gramling cuestiona la noción de monolingüismo, el uso del término y la comprensión de lengua en sí.

Palabras clave: LINGÜÍSTICA, IDEOLOGÍA LINGÜÍSTICA, MONOLINGÜISMO, MULTILINGÜISMO, ESTUDIOS LITERARIOS, ESTUDIOS DE TRADUCCIÓN LITERATURA MUNDIAL, CIUDADANÍA

IT Questo articolo è una recensione del libro di David Gramling, *The Invention of Monolingualism* (Bloomsbury, 2016), vincitore del premio 2018 dell'American Association for Applied Linguistics. In un momento come questo, in cui il bilinguismo e il multilinguismo sono al centro delle riflessioni accademiche, il testo affronta la nozione di monolinguisimo, ancora poco studiata. Attingendo da una vasta gamma di discipline, tra cui la linguistica, gli studi letterari, la scienza della traduzione e la letteratura mondiale comparata, Gramling solleva questioni importanti riguardo il concetto di monolinguisimo, l'uso che viene fatto del termine e la comprensione del linguaggio stesso.

Parole chiave: LINGUISTICA, IDEOLOGIA LINGUISTICA, MONOLINGUISMO, MULTILINGUISMO, STUDI LETTERARI, SCIENZA DELLA TRADUZIONE, LETTERATURA MONDIALE, CITTADINANZA

1. Counting what counts as language

"How many languages do you speak?" Applied linguists revel in the assumptions embedded in such a question. What does it mean to "speak" a language? Is there a target number of words, a bar of sorts, that earns a space at the table of knowing? Moreover, what counts as a "language" in this question? Do dialectal varieties count? Is a computer programmer bilingual for her ability to code in Python?

In discussing how many languages one speaks, there is enough to interrogate in the latter half of the sentence that it's possible to overlook the beginning—the seemingly innocuous "how many." Deceptively simple, all but invisible, one may forget that this "how many" belies the assumption that there exists an

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established a cartography of language, a bounded grid in which ways of communicating have finite borders that render “language” a system of namable, countable entities.

This cartography of language forms the basis for David Gramling’s *The Invention of Monolingualism* (2016), winner of the American Association for Applied Linguistics 2018 Book Award. Gramling, associate professor in the Department of German Studies at the University of Arizona, Tucson, opens the book by discussing his own educational experience “immersed in an undergraduate liberal arts culture that prized foreign language learning, as a matter of pride as much as one of profit” as compared to the broader norms of U.S. schooling centered on “the brute power of monolingual [English-speaking] privilege” (p. iii-iv). Seeking scholarship on monolingualism itself, Gramling found a rich, emergent body of work on multilingualism and bilingualism, but monolingualism itself seemed merely an implication against which bi/multilingualism was set up as an object of study. Monolingualism somehow seemed to escape the gaze of research in humanities and social science methodology. Gramling’s text thus seeks to explore the history of monolingualism as a concept “in hopes of displacing the positivistic pedestal upon which the word ‘monolingual’ currently rests: derided and derivative, yet left relatively undisturbed in theory, policy and practice” (p. 29).

2. Wrangling monolingualism

Monolingualism indeed faces little academic scrutiny as compared to its more exoticized cousins of bilingualism, plurilingualism, and translanguaging. Ellis (2006) reviewed scholarly literature on monolingualism, identifying three major representations:

- 1) Monolingualism as the “unmarked case,” or a norm against which multilingualism is set as the exception;
- 2) Monolingualism as a limitation on cognitive, communicative, social or vocational potential;
- 3) Monolingualism as a dangerous phenomenon with detrimental effects on social and educational policy.

Ellis (2008) subsequently edited a special issue of *Sociolinguistic Studies* on the topic of monolingualism, calling for a research agenda of more systematic exploration of the topic. Yet monolingualism continues to receive little attention in academic scholarship and linguistic discourse at large.

Gramling’s work acknowledges the ‘unmarked’ status of monolingualism, but operates outside any particular category of Ellis’ framework. As Ellis found, the small body of scholarly literature on the topic often approaches monolingualism as inherently problematic—either as a disadvantage for individual speakers or as an ideological force by which to undermine the language use of those who don’t fit into constructed monolingual norms. Gramling, however, takes a step back to approach monolingualism as “the logic by which language can be made enumerable in the first place” (p. 11). Outlining this logic in the book’s introduction, Gramling frames monolingualism as the bounding and enumerating of language, considered finite, transferable, translatable, and as a concept tied to nationhood. The book traces the emergence of the concept of monolingualism in Western Europe between the 17th-18th centuries, a time during which Enlightenment thinkers began

converting language from God’s unwieldy prerogative to humanity’s own, pluralizable panfunctional grid of rational extension ... a unified, possessable object called “a” language, whose essence inhered in its promise to know everything, say everything, and translate everything. (p. 2)

Gramling describes monolingual *ideologies*, or other systems of belief surrounding language, as related to, but distinct from, monolingualism itself. Monolingualism, therefore, becomes less a system of beliefs and more of a structure underlying these systems that allows an ideology to be connected to “a” language in the first place. While scholarship in language ideologies explores the maintenance and reproduction of ideologies by which language users are positioned in relation to linguistic, social, and racialized hierarchies (Rosa & Burdick, 2017). For Gramling,

most of the underlying features of monolingualism reproduce themselves...far beneath the threshold of individual belief and articulation, and even beneath the kind of terrain easily recognized as ideological. Monolingualism’s “ideology” is precisely to become transparent and plain, unworthy of comment or critique, and thus impervious to the ascriptions of racism, nationalism, purism, and elitism often leveraged at “beliefs about language”.... [Instead, M]onolingualism is primarily invested in erasing its own history of production. (p. 18)

Drawing on a broad mix of fields, disciplines, and methodological approaches, *The Invention of Monolingualism* seeks to uncover this history of production and to document how monolingualism manifests in modern day social, linguistic, and literary arenas.

3. Overview of chapters

As monolingualism has been an undertheorized concept in all fields of research, studying the phenomenon requires an interdisciplinary methodological approach. Gramling thus situates his book (and organizes its chapters) across the disciplines of applied linguistics, literary studies, comparative world literature, and citizenship studies. The arguments of the book are developed through historical analysis of philosophical and literary work stretching from 16th century Europe to the 21st century United States. A strength of this approach is that Gramling is clearly working from a body of scholarship in which he is well-versed by nature of his academic fields of study. However, this also means that readers must keep in mind that the book's analysis, and the title's assertion of "Invention," are context dependent. In other words, the book may be best described as a specific study of monolingualism *as developed in Western Europe and the United States*. Though this contextual specificity facilitates a cogent argument, curious readers will benefit from seeking further sources on monolingualism in other national and historical contexts (e.g. Park, 2008).

Within this analysis, each chapter demonstrates masterful methodological plurality. The range of data sources might, in another author's hands, make one's head spin. Gramling, however weaves a complex network of literary, linguistic, policy, and media sources together into a cohesive argument—namely that the underexplored, undertheorized derision which greets the notion of monolingualism constrains our understanding of language use and its societal implications.

Chapter 1, *Monolingualism: A user's guide*, compares how monolingualism is framed in academic discourse with how the phenomenon actually operates in practice. This chapter includes Gramling's most explicit pushback against the ill-defined, essentialized notions of monolingualism that pervade academia and other literary circles. Methodologically grounded in applied linguistics, this chapter will be of particular interest to readers of this journal due to the range of data sources, drawn from a variety of political, social, and technological arenas. Drawing on sources from government communiques to Google translate, by the end of this chapter, what may have been assumed to be a simple linguistic designation becomes excitingly complexified in all its possibilities.

Chapter 2, *Kafka's well-tempered piano*, explores monolingualism in the literary realm across the seemingly unlikely pairing of Bach and Kafka. The chapter develops a musical analogy, recurrent throughout the book, between monolingualism and musical transposability illustrated through Bach's "well-tempered" clavier. In introducing this chapter, Gramling posits that, "The wager of monolingualism was also Bach's wager: that the sacrifices one makes in achieving transposability, say from the key of E to the key of A flat... were negligible when compared to the pragmatic benefits of exchangeability across keys" (p. 24). This concept is further developed through an analysis of Kafka's *The Missing Person*, a novel in which the protagonist is gifted a well-tempered piano just as he is struggling to fit into the monolingual language norms of his new homeland. The literary and musical analogies thus frame monolingualism as a *technology* which, like the well-tempered clavier, allows for transposability across keys or languages, but sacrifices the distinctive, nuanced individuality of a more untamed system.

The analogy of transposability extends to the modern market of world literature in Chapter 3, *The passing of world literaricity*. Gramling contrasts Kafka, a multilingual individual who largely published monolingual works, with authors such as Orhan Pamuk, Junot Díaz, and Terézia Mora who push back against literary monolingualism, producing confoundingly "untranslatable" works through their multilingual writing. This chapter grapples with the degree to which the increasingly popular "soft multilingualism" (Noorani, 2013), which has proven highly marketable in current world literature, actually disrupts literary monolingualism, or whether this trend merely reifies the concept of monolingualism by commodifying its opposition.

Chapter 4, *A right of languages*, pulls together the concepts of previous chapters to develop to a broader civic argument. Drawing on German language policy and migrant regulation, Gramling argues that notions of citizenship have begun to shift from an emphasis on blood-rights and territorial rights toward a system in which demonstrated linguistic competency has become a key criterion of belonging. Through the lens of citizenship, monolingualism not only impacts communication, but in the symbolic connection of language to nationhood. Gramling is quick to assert that pre-modern Europe was in no way a peaceful, panlinguistic utopia, but that individuals at this time did not necessarily have the entrenched notion of language as indicating belonging to a political entity such as a nation. Thus, as nations today become more broadly diverse in terms of

race, ethnicity, and national origin, language use becomes increasingly scrutinized and regulated as a vehicle for symbolic allegiance and purported social cohesion.

4. Applications and Implications

In its entirety, *The Invention of Monolingualism*, offers a rich analysis of monolingualism as a theory of language. As Gramling himself notes, he often stops short of discussing the material consequences of this theory. Early in the text, for example, Gramling seeks to disaggregate monolingualism from its historical role in imperial projects.

Not initially prone toward domination or purification, the monolingual imagination in the seventeenth century did little more or less violent than to perceive a global grid of discrete, namable, rationally extensive languages.... Monolingualism *manages* other languages; it does not oppose them. (p. 11)

Therefore, Gramling's work is productively read alongside other texts that document the connections between language, imperial projects, and social control (e.g. Heller & McElhinny, 2017). However, the principles of monolingualism Gramling highlights—viewing language as enumerable, translatable, and tied to nationhood—are fundamentally connected to understanding how these connections are applied and enacted.

In this way, the book has major implications for applied linguists exploring the underlying logics by which language hierarchies are created and maintained. If monolingualism frames the boundaries of language varieties as finite and measurable, for example, this has substantial explanatory power for investigating the notion of standardized language assessments or documenting how certain dialectal varieties become idealized as more “standard” or “academic” than others. Gramling's work also provides a foundation to further interrogate monolingualism. For example, if monolingualism is omnipresent in undergirding our modern understandings of language, does this presence affect all language users in the same way, or are the linguistic and material implications of monolingualism moderated based on positional factors such as race, class, and gender? For whom is monolingualism a *choice* and for whom is monolingualism never an option?

Histories of linguistic profiling (Baugh, 2003), brought to the forefront through recent incidents involving U.S. immigration enforcement (Cullinane, 2018), bring these questions into stark relief alongside the connections Gramling establishes between monolingualism and contingent notions of citizenship. The oath taken by those becoming naturalized citizens of the United States begins with “I absolutely and entirely renounce and abjure all allegiance and fidelity to any foreign prince, potentate, state, or sovereignty, of whom or which I have heretofore been a subject or citizen” (U.S. Citizenship and Immigration Services, 2016). When language is tied to nationhood through monolingualism, this renunciation becomes implicitly tied to language as well. Whether two tongues or two passports, monolingualism and nationalism intersect to inform a monolingual ideology which questions the national loyalty of an individual using what is framed as a forbidden language (Gándara & Hopkins, 2010). As such, Gramling's work provokes a timely conversation around the intricacies between language, belonging, nationhood, and power.

5. Conclusion

Throughout the text, Gramling offers a rich analysis of an otherwise overlooked linguistic distinction. This work adds a productive dimension to scholarship that examines complex ties between language, literature, and citizenship. In exploring not only how monolingualism is discussed, but also how language users leverage it, this book provides an applied analysis of a phenomenon that is generally oversimplified—if it is discussed at all. An exemplar of methodological interdisciplinarity, *The Invention of Monolingualism* provides a necessary contribution to the field of applied linguistics, exploring an undertheorized notion with widely pervasive implications.

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