

# Research on Heritage Spanish Phonetics and Phonology: Pedagogical and Curricular Implications

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## ABSTRACT

This paper creates a novel link between research on linguistics and education by discussing what we know about the sound system of heritage language users of Spanish and how these findings can inform practices implemented in heritage Spanish courses in the USA. First, we provide an overview of terminology associated with heritage language research, situating heritage Spanish programs within the educational context of the USA, and explaining why heritage Spanish phonetics and phonology remain relatively unexplored. Next, we delve into previous linguistic research on the heritage Spanish sound system in terms of individual vowels and consonants, as well as at the level of intonation, rhythm, and stress, while highlighting any observed differences between the system of heritage Spanish and those of Spanish speakers of other backgrounds. Finally, motivated by the phonetic/phonological insight of previous work, in addition to existing pedagogical and curricular research on heritage Spanish, we consider how and why the inclusion of specific types of sound-system-based commentary and practice in the educational experience of heritage users of Spanish could be beneficial.

**KEYWORDS:** PHONETICS, PHONOLOGY, CURRICULUM, SPANISH, PEDAGOGY

## 1 INTRODUCTION

The terms *heritage speaker* and *heritage language user* refer to a type of bilingual who grows up with some degree of exposure to a minority language at home, or to a *heritage language* (HL) (Valdés, 2000; among others).<sup>1</sup> Subsequently, entrance into the educational system marks a point of increased input and use of the socially dominant language, which leads to a wide range of linguistic outcomes in both languages involved. HL users of a particular language form a highly heterogeneous group, ranging from individuals with high levels of linguistic proficiency to those who barely speak the language but still identify with the culture associated with it (Helmer, 2011; Kondo-Brown, 2010; Van Deusen-Scholl, 2003). HL users are also widely diverse as regards their cultural background and home language variety. Though some debate exists as to who can be labelled a HL user, as well as regarding the term itself (Wiley, 2001), the classification primarily relates to individuals born in the county

of immigration or those born abroad who immigrated before school age or before their teen years (Potowski, 2013).

While HL users of various languages reside across the globe, one of the most populous examples is HL users of Spanish in the USA. Decades of Spanish speakers immigrating from Mexico, Central America, and the Caribbean, among other regions, has resulted in a significant increase in the number of HL users of Spanish all across the USA, but particularly in larger urban areas (e.g., Chicago, Los Angeles, New York, Miami) and in the southwestern region of the country (e.g., Arizona, New Mexico) (United States Census, 2010). According to population census estimates, Hispanics accounted for 17% of the population (54 million people) in 2013 compared to 12.5% (35 million) just 13 years earlier in 2000. As universities, colleges, and high schools have taken note of this population growth, more heritage Spanish courses have been developed. A key part of the formation of such courses is that institutions have recognized that a *HL learner*, or a HL user who takes courses in an academic setting to learn more about and expand their HL proficiency, has different needs than the traditional adult second language (L2) learner (Montrul, 2010; Valdés, 2001). That is, in many cases, HL learners can successfully navigate informal, spoken communication due to their experience with their HL as a child, but do not possess similar levels of knowledge of formal registers or written communication in the language (Lynch, 2012), which they would need in an academic or job setting, simply because they did not have the opportunity or motivation to learn such skills. The opposite trends are the case for the majority of L2 learners. Because HL learners bring different linguistic competencies to the language classroom when compared to L2 learners, it has been recommended that programs provide separate classes for HL learners that target their unique strengths and weaknesses (Alarcón, 2010; Beaudrie, 2011, 2012a; Lynch, 2003, 2009; Montrul, 2004; Potowski & Carreira, 2010; Roca & Colombi, 2003; Zamora, 2013).

Courses designed for HL learners have been available in some regions of the USA since as early as the 1970s (Valdés, 1981). However, despite the growing population of HL users, a survey conducted by the National Foreign Language Center (NFLC) and the American Association of Teachers of Spanish and Portuguese (AATSP) reports that only 18% of the 146 colleges or universities sampled offer HL classes (Ingold, Rivers, Tesser, & Ashby, 2002). More recent surveys have found higher proportions of HL programs, but the availability of these programs is unevenly distributed throughout the country, even in regions with high concentrations of HL users (Kondo-Brown,

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2010). Beaudrie (2011) finds an uneven distribution of HL classes throughout the southwest region of the USA, but also discovers a positive relationship between the availability of HL programs and the size of the Hispanic student population. She identifies this correlation as being prevalent in other regions of the USA as well; however, more research is needed to explore factors that contribute to the varying availability of HL programs (Beaudrie, 2012).

The demographic shift that has occurred over the past two decades has also spurred an increase in research focusing on HL users of Spanish from both linguistic and pedagogical perspectives (Beaudrie & Fairclough, 2012; Montrul, 2008; Potowski, 2005; Potowski & Rothman, 2011; Roca & Colombi, 2003; among others). Linguistic studies have mainly compared heritage Spanish (morpho)syntactic data to those of native speakers (monolinguals and first generation immigrants) and L2 learners and have accounted for the non-native features of heritage speech via claims of incomplete acquisition, attrition or differences in input received during the acquisition process (Montrul, 2008; Pascual y Cabo & Rothman, 2012).<sup>ii</sup> One area of linguistic research concerning HL users of Spanish (and HLs in general (Montrul, 2010; Polinsky & Kagan, 2007)) that is relatively lacking is the sound system, which refers to phonetics and phonology. This is in large part because it is assumed that these speakers often “have a good accent” or “sound native-like.” As such, from a pedagogical standpoint, relatively speaking, it appears that integrating a discussion of the Spanish sound system is a low priority in heritage classrooms. In recent years, studies filling the phonetics/phonology research gap have found evidence that HL users seem to have a more native-like sound system than L2 learners, but that their speech has varying degrees of traces of a *heritage accent* (Benmamoun, Montrul, & Polinsky, 2010). Such an accent, which arises from the unique acquisitional experiences of HL users, can be negatively perceived by native speakers of the same community. For such reasons, among others, HL users may not always desire to be HL learners when offered the opportunity (Ducar, 2012; Potowski, 2012).

In this paper, we connect findings from recent research on heritage Spanish phonetics and phonology with Spanish as a HL pedagogy and curricula. We encourage some degree of inclusion of heritage versus native sound systems, as well as the reasons behind the differences between each system, in heritage Spanish courses. We believe this to be a useful suggestion because it will help HL learners gain a deeper appreciation for, and understanding of, any accent they may have as being a by-product of their unique linguistic and cultural realities, as opposed to a “worse way of speaking” than a native speaker.

The remainder of this paper is organized as follows: Section 2 summarizes previous research on heritage Spanish consonants, vowels, and prosody; Section 3 discusses how to adjust the educational goals and practices of current HL programs to accommodate the needs of HL learners, including increased attention to sound systems; and Section 4 provides our concluding remarks in terms of what we have shown and where to go next.

## 2 RESEARCH ON HERITAGE SPANISH PHONETICS AND PHONOLOGY<sup>iii</sup>

### 2.1 Consonants

Consonants are sounds produced with some degree of airflow obstruction (Hualde, 2005). Stop consonants /ptkbg/ (i.e., those

exhibiting a moment of complete obstruction of airflow) are realized in distinct fashions in English and Spanish, and thus have received the most attention from investigators of heritage Spanish. Voiced stop phonemes /bdg/ (bilabial, dental, and velar, respectively), which are characterized as demonstrating vibration of the vocal cords along with a moment of full closure, are typically realized in native Spanish as a stop [bdg] after a pause, after a nasal consonant such as /m/ or /n/, and, specifically for /d/, after /l/ as well. In all other contexts, but most consistently in between vowels, /bdg/ are produced in a weakened form [βðγ], respectively, in which the articulators in question do not touch, which allows air to pass by with minimal obstruction. On the other hand, in English, such weakening is not attested and /bdg/ are most commonly realized as stops. Another difference between the two languages is that in English, /b/ and /v/ are two separate phonemes, whereas in Spanish /b/ is a phoneme but /v/ is not; rather, <v> is an orthographic form of /b/ (Hualde, 2005).

Concerning the voiceless (i.e., no vocal cord vibration) stops /ptk/, the primary distinction drawn between those of English and Spanish deals with *voice onset time* (VOT), which is the length of time between the moment at which articulatory organs separate and the beginning of the vibration of the vocal cords of the following segment (Lisker & Abramson, 1964). The VOT values of /ptk/ are generally higher in English than in Spanish, particularly in the initial position of a word. The positional variation influence on VOT values in English generates the aspirated realizations [p<sup>h</sup>t<sup>h</sup>k<sup>h</sup>] word-initially and the unaspirated productions [ptk] in other contexts (Lisker & Abramson, 1964). The unaspirated forms with lower VOTs are characteristic of native Spanish speech in all word positions.

A series of studies have used the above-noted differences as a point of departure to examine and compare the realizations of Spanish stops in data coming from HL users and native speakers or L2 learners. For example, Au, Knightly, Jun and Oh (2002) examine voiced and voiceless stops in HL users and L2 learners, while Knightly, Jun, Oh and Au (2003) and Au, Oh, Knightly, Jun and Romo (2008) focus specifically on the voiced series. All three studies reveal that HL users produce more native-like stops, which the sets of authors further support through native speaker perceptual evaluations. On the level of production, Kim’s (2011) results reflect those of the three aforementioned studies. However, she adds that Spanish HL users’ perceptual discrimination abilities reflect those of native controls. Along the line of perceptual tests, Boomershine’s (2014) perception study on [r] (e.g., *butter*) /[ð] (e.g., *the*) /[d] (e.g., *dog*) notes that HL users and native Spanish bilinguals and monolinguals can all clearly distinguish [d]/[r] and [r]/[ð] in English. However, [d] is discriminated from [ð] at a higher rate by HL users and native bilinguals due to the stronger contrast between these two sounds in English. Additionally, Mazzaro, Cuza and Colantoni (forthcoming) look at HL users’, native bilinguals’, and native monolinguals’ ability to discriminate stop consonants (as well as vowels) and observe that, other than /k/ and /g/, HL users’ results reflect those of monolinguals.

In recent years, we have seen an increased emphasis on acoustic analyses of the speech signal in production studies that include HL user data. For example, Amengual (2012) shows that the VOT of /t/ increases in HL users’ productions of words with English cognates. Furthermore, two studies by Rao (2014, 2015) analyze HL users’ realizations of intervocalic voiced stops and report that factors such as stressed syllables, word boundaries, visual access to orthography in reading tasks, and weaker ties to

Spanish result in productions which are weakened and less native-like, and more productions which suggest some degree of influence of English phonology. In particular, the more recent study highlights the fact that in the data presented, /b/ distinguishes itself from /dg/ in terms of demonstrating patterns that diverge the most from native tendencies. Finally, Henriksen (2015) is the first study to address rhotic phonemes in the Spanish of HL users. The tap /r/, which is described as a single vibration created by the tongue tip contacting the alveolar ridge, is a phoneme in Spanish that contrasts intervocalically with the trill /r/, which is characterized by a series of the same type of vibration (Hualde, 2005). The tap is produced in English (e.g., in 'better'), but it is not a phoneme, and the trill does not exist in English. The native bilingual and Chicagoland HL user data presented by Henriksen shows considerable variation, but in general the Spanish contrast is maintained through segment length rather than vibrations, and is not attributed to English influence. Amengual's (forthcoming) results on HL users and L2 learners generally reflect Henriksen's (2015) findings.

Overall, the studies summarized in this section inform us that childhood exposure to Spanish provides HL users with perceptual skills that resemble those of bilingual, and in some cases, monolingual native speakers. Also, certain variables have been documented as causing consonantal realizations that differ from those of native speakers, and in some cases, the differences suggest evidence of effects of English.

## 2.2 Vowels

Vowels are sounds produced without any obstruction of airflow (Hualde, 2005). The vowels of native Spanish are described by experts such as Martínez Celdrán (1995) and Quilis and Esgueva (1983) as being organized in a triangular and symmetrical fashion within the vowel space. Their descriptions and classifications depend on properties related to the horizontal and vertical position of the tongue within the oral cavity. Vowels have only recently begun receiving attention in studies on HL users; perhaps because, unlike consonants, they are traditionally seen as stable in Spanish, meaning they are not typically altered by factors such as syllable stress (as is the case in English).

Studies delving into the Spanish vowel system of HL users find vowel spaces that are not as symmetrical as those of native speakers and that do display evidence of shift toward the center of the vowel space (i.e., reduction) in unstressed syllables (Alvord & Rogers, 2014; Boomershine, 2012; Ronquest 2012, 2013, forthcoming; Willis, 2005). Both of these trends are particularly noteworthy in more spontaneous speech styles. The vowels that seem to undergo the greatest modification when compared to those of native speakers are the high vowels /iu/ (especially /u/) and the mid vowels /eo/. While one could surmise that the observed reduction is due to contact with English, Alvord and Rogers (2014) present Cuban data in which both HL users and older immigrants exhibit this trend.

Overall, research on HL users' vowel system is in a much earlier phase than that of consonants. However, the small body of existing studies on the topic have pinpointed some key differences between HL and native systems, which may arise from the degree of command of English and Spanish, or perhaps from the source dialect of HL users.

## 2.3 Prosody

The term *prosody* refers to phenomena taking place above the level of individual segments, or in strings of segments, and

specifically involves intonation, rhythm (i.e., a preference for similar syllable lengths, like Spanish, or similar length between lexical stresses, like English), and stress (Hualde, 2005).<sup>iv</sup> To date, even less exploration has been made into the prosody of HL users as into their consonants and vowels. Within the small body of work that has been carried out, intonation has been examined the most, while rhythm and stress have only begun to receive attention very recently.<sup>v</sup>

Alvord's (2010a, 2010b) work on Cuban Spanish statement-and-question intonation incorporates one generation (i.e., third generation) of HL users. His key findings are that – particularly in the case of question intonation – social networks, ties to a Cuban identity, and possibly English intonation all seem to play a role in third generation patterns, which diverge more from those of the second generation than from those of the first generation. In a comparison of Chicagoland Mexican HL user and native statement-and-question intonation patterns, Henriksen (2012) also uncovers more differences in the latter utterance type. He suggests that the blending of English and Spanish dialects of HL users could be responsible for their non-native-like question patterns. Additionally, Robles-Puente (2014) investigates the English and Spanish intonation of various utterance types with a diverse array of pragmatic intents in five speaker groups in Los Angeles, two of which could be classified as HL users. These two groups do not demonstrate significant intonational differences between their two languages. Interestingly, the trends of HL users born in Los Angeles more closely reflect those of the native Spanish control group than those of individuals who immigrated as young children. Colantoni, Cuza and Mazzaro (2016) analyze the neutral statement intonation of HL users and older immigrants in both reading and narrative tasks. They only report differences in the former, which reinforces the importance of task type in studies on the sound system of HL users noted in the previous two sections. Finally, Rao (2016) employs a similar methodology to Robles-Puente (2014) but focuses more on the experiences of HL users with Spanish in accounting for his results. His most noteworthy finding is that while HL users and native speakers possess similar amounts of variation as regards question intonation patterns, the types of variation differ between the groups. Inspired by Pascual y Cabo and Rothman's (2012) insights, he suggests that exposure to input with diverse types of intonation patterns is the most viable way of explaining the results.

With regard to rhythm, Robles-Puente (2014) reports that his HL users who immigrated to Los Angeles as children employ English-like tendencies in both of their languages, whereas those born in Los Angeles divide their rhythmic patterns based on the language being used. Due to differences between his intonation and rhythm results, he proposes that even though these two areas belong to the umbrella term *prosody*, their individual implementation in the grammars of bilinguals could differ from one another. A second study incorporating Spanish rhythm was carried out by Michnowicz and Griffith (2014), who compare HL users and L2 learners. They observe that the latter group manifests a rhythm more closely resembling that of native Spanish, which suggests that childhood exposure to Spanish may not provide HL users with an advantage over L2 learners in the native-like acquisition of this prosodic feature. They posit that the reduced variation in HL users' results could be due to their two rhythmic systems converging.

Concerning stress, to our knowledge, the only study addressing this area of prosody in HL users is Kim (2015). She compares HL user versus native speaker perception and production of penultimate versus ultimate stress and notes that while the former group experiences difficulty with penultimate stress in general, its scores are only significantly different from those of the native speakers in the production task. This supports the need to consider both perception and production when examining the phonetic/phonological systems of HL users that was mentioned in Section 2.1.

In sum, the study of the prosodic systems of HL users is in its fledgling state. What we have learned to date indicates that Spanish HL users' implementation of prosody shows individual variation, as well as displaying differences with other groups of Spanish speakers. English trends and the combination of two linguistic systems potentially have a role in shaping these differences.

### 3 PEDAGOGICAL AND CURRICULAR IMPLICATIONS<sup>vi</sup>

The overview of previous research presented in Section 2 enriches our understanding of the phonetic/phonological behaviors of HL users and has important pedagogical implications. As we discussed earlier, because of their diverse cultural and linguistic experiences with the target language, HL learners have specific educational needs that differentiate them from native speakers and L2 learners. Moreover, the linguistically diverse community of HL users poses a series of pedagogical challenges to teachers and administrators of HLs, resulting in a dearth of programs with appropriate learning goals, curricula, and materials (Beaudrie, 2012a). In this section, we discuss the educational needs of HL learners within the domain of phonetics and phonology, pinpoint challenges associated with the development and maintenance of HL programs, and advise HL instructors on what to keep in mind when designing and implementing course curricula.

HL users are a particularly diverse population in terms of the realization of their sound system (among other linguistic areas), and it can be challenging to accommodate this disparity among students in the HL classroom (Carreira & Kagan, 2011; Kupisch, Barton, Hailer, Stangen, Lein, & van de Weijer, 2014; Polinsky & Kagan, 2007; Valdés, 1997). In general, HL users tend to have stronger receptive skills than production skills (Potowski & Lynch, 2014), which is further supported by the findings of some studies outlined in Section 2 (e.g., Kim, 2011, 2015). Beaudrie and Ducar (2005) find that low-level Spanish HLs enrolled in a first-semester HL course at the University of Arizona have strong receptive skills, but little to no production skills. However, while some HL users are limited in their oral production abilities, others are fully fluent (Helmer, 2011; Kondo-Brown, 2010). Polinsky and Kagan (2007) explain that HL users "fall within a continuum, from rather fluent speakers, who can sound almost like competent native speakers, to those who can barely speak the home language" (p. 371). This assertion is reflected in a study by Kupisch and colleagues (2014) in which they investigate Spanish accents and find that HL users lie somewhere between native and L2 speakers, depending on factors such as length of residence in HL-dominant regions. Varying levels of oral proficiency among HL learners is also reported in Helmer's (2011) ethnographic study of high school Latino and Latina student engagement. Helmer (2011) shows that less orally proficient HL learners are teased

by their classmates for "speaking white" (i.e., with an anglicized accent) (144).

Along with varying oral production skills, HL learners tend to have trouble with grapheme-phoneme mapping and stress placement (i.e., problem areas that are often attributed to a lack of metalinguistic awareness of Spanish or interference from English). While many of the grapheme-phoneme relationships in Spanish are one-to-one or rule-based, depending on phonological context, in some cases there are no phonological rules that explain a word's spelling, often because the orthography in these particular cases is determined by etymological origin rather than phonology (Defior, Jiménez-Fernández, & Serrano, 2009). HL users often have difficulty spelling Spanish phonemes that have more than one possible graphemic representation, such as the case of <b>/<v> described in the previous section. HL users also display phonetic strengthening tendencies in stressed syllables and word boundaries, possibly due to interference from English. This is commonly seen as the cause of HL learners' tendency to not include written accent marks as well. In a corpus-based study on the orthographic proficiency of HL users of Spanish, Beaudrie (2012b) finds that written accent marks are the most frequently occurring error. She explains that written accent mark placement in Spanish is a hard aspect to master because it requires not only a command of orthographic rules, but also of prosody, part of which deals with syllable stress.

The disparate proficiency levels and problematic areas common to HL learners must be addressed in HL curricula and educational materials. The Heritage Language Programs Database, available through the Heritage Languages Initiative, is a searchable database of HL programs based on level, language, and geographic location. The majority of the HL programs described in the database that are offered at higher education institutions list objectives involving the "development of students' knowledge of academic Spanish" in order to cultivate "educated Spanish speakers who are able to write and speak in professional settings" (Heritage Languages Initiative). Despite the fact that these objectives target production skills in both the written and spoken domains, it has been widely reported that, in practice, HL programs tend to focus on the improvement of literary skills and written production rather than on oral production skills (Beaudrie, 2012a). This may be because HL courses typically target the needs of intermediate learners (Beaudrie, 2012a). Lower proficiency HL learners often have the goal of improving their limited literacy skills and fluency while higher proficiency HL learners often need to focus on managing speech registers that are relevant to them and on developing competency in a more standard dialect of Spanish (Beaudrie, 2011; Beaudrie & Ducar, 2005; Valdés, 1999). In practice, the goals of these latter two learner levels are often overlooked.

The inappropriate learning goals and classroom practices of HL programs may be attributed to the lack of materials catered to HL teaching and learning.<sup>vii</sup> In 2011, the Center for Applied Linguistics compiled a list of Spanish textbooks and materials used in the instruction of native and HL users of Spanish. The comprehensive list includes descriptions of 137 publications, including the type and level of materials, the skills taught, and the types of students for whom the materials are designed. About half of the publications listed were originally intended for non-native Spanish speakers, but are included in the list because they can be adapted for use in HL classrooms. Only two of the 137 textbooks have a particular focus on phonetics and phonology,

and only ten of the textbook descriptions mention pronunciation as one of the skills targeted. This reflects the earlier stated commonly held belief that HL users tend to behave like native speakers with regard to pronunciation. Since the release of the list of HL learner materials through the Center for Applied Linguistics in 2011, more materials for HL learners have been developed, including updated editions of textbooks. For instance, Cengage published a second edition of *El mundo hispano 21*, which has a heavy focus on culture, while also reviewing grammar and vocabulary (Samaniego, Rojas, Nogales & de Alarcón, 2013). However, the book neglects the development of speaking and pronunciation skills. Similarly, Prentice Hall published a second edition of a textbook called *Manual de gramática y ortografía para hispanos*, which focuses on grammar, writing, and culture, but also neglects any particular emphasis on pronunciation (Francés & Benítez, 2012).

While there is an extreme shortage of programs and materials that address the oral production needs of different HL learners, there are a few highly successful HL programs that can serve as a model for the creation of future programs. The most noteworthy example is the Spanish for Heritage Learners (SHL) program in the Department of Spanish and Portuguese at the University of Arizona, one of the oldest and most comprehensive programs in the country. The SHL program has approximately 600 students and offers HL courses at elementary, intermediate, and advanced levels. Learners are placed into the appropriate level based on a diagnostic exam. The objectives of the courses in this program range from developing bilingual skills and learning about different cultures in the Spanish-speaking world to developing metalinguistic awareness, achieving high-level proficiency, and acquiring pragmatic competencies in Spanish. The most advanced level course, entitled “Spanish Phonetics for the Heritage Speaker,” focuses on the differences between written and spoken Spanish in order to advance proficiency and knowledge of different varieties of Spanish. The course uses a textbook published by McGraw Hill entitled *Camino oral: Fonética, fonología, y práctica de los sonidos del español* (Teschner, 2000), one of the two textbooks with particular emphasis on phonetics and phonology for HL learners included on the list developed by the Center for Applied Linguistics.

While not all programs can or need to be as extensive as the one at the University of Arizona, there are some issues that educators and administrators should keep in mind when developing courses for HL learners of Spanish (as well as other HLs). First of all, it is imperative that educators approach this community of speakers in a way that will benefit them as learners. Because HL users are very diverse and often exhibit drastically different skills and experiences between individuals, the one-size-fits-all instructional approach of foreign language classes is inappropriate for HL classrooms (Beaudrie, 2012a; Carreira & Kagan, 2011). Conversely, instructors must differentiate instruction according to the needs of the individual learners to benefit not only the higher proficiency students, but also the lower proficiency students with limited production skills in Spanish. In order to do this, instructors must consider not only “imagined languages”, but also the particular varieties, styles, and practices in which the students participate (Leeman, 2015: 108). As a starting point, it is advisable that HL instructors administer sociolinguistic surveys that gather information about the linguistic attitudes, experiences, and needs of the individuals in their classes. This strategy has multiple perceived benefits: it

not only makes the students more aware of their linguistic skills, attitudes, and experiences, but also helps educators determine the objectives and methodologies that will be most relevant and useful for their particular classes (Alarcón, 2010; Beaudrie & Ducar, 2005; Carreira & Kagan, 2011).

After determining the individual academic objectives of a particular group of HL learners, teachers should design curricula based on the needs of the individual students, and instructional approaches should accommodate HL learner needs. In order to address common issues like grapheme-phoneme mapping and stress-placement, Potowski and Lynch (2014) advise that teachers utilize the preexisting literacy skills that the students have in English (or whatever their native language may be). For instance, it may be useful to explicitly show students how Spanish is different from English in terms of word position and syllable stress. Regarding to instructional approaches, the HL classroom should be organized in a way that is similar to the multilevel structure of English as a second language and elementary classrooms in order to account for the varied competences of learners. Differentiating instruction according to individual needs will ensure that all students receive the support that they need (Potowski & Lynch, 2014). For instance, instructors could group students together to encourage participation, assign formative assessment measures such as portfolios or journals that track individual students’ progress through a variety of domains and registers, or assign independent study activities for particular learners with special needs (Carreira & Kagan, 2011).

Educators are urged to avoid devaluing non-standard varieties of Spanish; rather, they should emphasize acknowledgement and appreciation of the great wealth of knowledge and skills that HL learners bring to the classroom. In the past, the contact varieties of Spanish HL users in the USA were portrayed as deficient by some language educators (Leeman, 2005, 2015; Valdés 1981). Beaudrie (2012a) discusses the “linguistic prejudice” that language teachers tend to have against nonstandard dialects. She explains that this prejudice can be detrimental to the learning of students in HL courses. Furthermore, Showstack (2012) asked HL learners at a university in Texas to discuss topics involving bilingual culture and identity, and the use of Spanglish. Many of the participants’ responses expose a negative attitude toward language mixing, viewing mixed or nonconventional variants as inferior or substandard. Rejection of HL varieties of Spanish is not conducive to a rich learning environment and may actually have a negative impact on HL learners. Conversely, HL programs should encourage oral production in a welcoming, low-anxiety classroom environment that fosters learners’ confidence and cultural pride. HL teachers can create these environments by using Spanish as the primary means of communication during class and by rewarding students for communicating freely without feeling pressure to adhere to standard prescriptive norms (Beaudrie & Ducar, 2005; Leeman, 2015). Instructors must also be aware of dialectal variations of the HL and keep them in mind when correcting learner “errors” and determining the evaluation standards to which the learners are held accountable on assessments. Overall, while it is clear that baselines, standards, or norms are necessary, particularly for the purposes of assessment, learners’ time in the HL classroom could be further enriched if we stress that, in terms of sound systems, heritage Spanish in the USA is a unique and interesting case of language contact that demonstrates diversity, and that differences in native versus heritage sound systems (i.e.,



“heritage accents”) are just that -- *differences* (without “better” or “worse” value judgments) -- that arise for linguistic and social reasons.

At this moment, considering both the development of fields related to Spanish as a HL and the demographic progression of the USA, it is essential that we have a comprehensive understanding of the linguistic behaviors of HL users of Spanish (in addition to those of other HLs). In wake of the recent research that has uncovered phonetic and phonological differences between HL users and native speakers, there is a clear dearth of materials that target the development and refinement of pronunciation skills and practices, a domain that is particularly relevant for lower proficiency HL learners. As we gain more insight into the sound systems of HL users, we will be better equipped to develop instructional materials and tasks that are level- and skill- appropriate, and specifically tailored to the needs of HL learners of all proficiency levels.

#### 4 CONCLUDING REMARKS

In this paper, we used the existing body of research on the phonetic and phonological systems of Spanish HL users as a foundation for suggesting and encouraging the increased integration of the sound system of heritage varieties into heritage Spanish curricula and pedagogical approaches to it. The discussion filled a research gap because, to our knowledge, little to no previous work addresses the educational implications of what we know about heritage Spanish sound systems.

Regarding the phonetics and phonology of Spanish HL users, it is important to note a few limitations within existing work, because exploring these further down the line will provide more guidance for educators attempting to act upon the points we have raised in this paper. First, the majority of previous research focuses on Mexican Spanish HL users, while a few studies also use HL users of Cuban Spanish. This is logical given the population of individuals of Mexican and Cuban descent in the USA; however, participants from a wider range of backgrounds need to be recruited for future work in order to provide a more complete and broader-scoped presentations of heritage Spanish sound systems that can speak to the most diverse range of Spanish HL learners possible, without leaving any learners feeling marginalized. Second, we need more studies employing informal tasks rather than reading tasks because the former approach elicits data that better reflects the experiences of users with their HL. Finally, the field is begging for more cross-generational studies of native and HL users within the same speech community. Heterogeneity among HL users is an inevitable challenge; however, if we tap into grandparents, parents, and HL users of the same family and/or social network, we can better understand the (potentially already non-native-like) input received by HL users, which will shed light on one potential source of the sound patterns they exhibit.

Overall, we hope that both the present overview of two fields and the beneficial link between them inspire future researchers to collaborate and improve upon the educational experiences of HL learners of various levels and at various types of institutions.

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## NOTES

<sup>i</sup> We will use the term *heritage language user* in this paper because, in line with broader notions of the concept, this type of individual does not necessarily *speak* the HL. It is also more appropriate for our purposes because we refer to both production and perception studies in our discussion, the latter of which does not involve *speaking*.

<sup>ii</sup> We use *native* to refer to Spanish monolinguals as well as Spanish-dominant bilinguals who immigrate to the USA as an adult (i.e., older immigrants or long-term immigrants). These two types of speakers associated with *native* are distinguished throughout the paper when necessary.

<sup>iii</sup> For a more elaborate discussion of many of the issues raised in this section, see Rao & Ronquest (2015) and Ronquest & Rao (forthcoming).

<sup>iv</sup> Work on intonational phonology, including what we have seen for HL users, is often couched within the Autosegmental-Metrical model (Pierrehumbert, 1980).

<sup>v</sup> See Hoot (2012) for a proposal arguing for the increased incorporation of linguistic interfaces (e.g., prosody-syntax) in the discussion of heritage grammars.

<sup>vi</sup> For a summary of key pedagogical issues related to the heritage Spanish classroom, see Magaña (2015).

<sup>vii</sup> While HL teacher training is an important and relevant topic, it is outside of the scope of this paper. For information on HL teaching and teacher training, see Alarcón (2010), Beaudrie (2012a), Potowski (2005, 2014), and Valdés, Fishman, Chávez & Pérez (2006).

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