Critical Multilingualism Studies
an interdisciplinary journal

Elena Schoonmaker-Gates
Elon University

THE ACQUISITION OF DIALECT-SPECIFIC PHONOLOGY, PHONETICS, AND SOCIOLINGUISTICS IN L2 SPANISH: UNTANGLING LEARNER TRENDS

Abstract:
How regional variation shapes second language (L2) perception and manifests in the production of second language learners has received more and more attention from linguists recently. Within the emerging field of L2 sociophonetics, both perception and production studies are essential for understanding L2 phonological dialect acquisition, but neither alone can provide a full picture of a learner's development. This paper surveys the learner trends observed in recent research on regional sound acquisition in L2 Spanish in both areas, tying findings to theoretical models in L2 speech perception and sociolinguistic acquisition, and considering what elements of acquisition the models fail to address. This review confirms the interdisciplinary nature of L2 regional sound learning, as social factors like identity and social networks predict dialect variant acquisition alongside L2 proficiency, exposure, and other linguistic and situational factors. Because of the interdisciplinary nature of the developing field of L2 sociophonetics and dialectology, future research is needed that maps a variety of social, linguistic, and individual factors and their role in L2 regional acquisition.

Keywords:
dialect acquisition ◆ sociolinguistics ◆ L2 phonology ◆ sociophonetics ◆ second language acquisition

Schoonmaker-Gates, Elena. "The Acquisition of Dialect-specific phonology, phonetics, and sociolinguistics in L2 Spanish: Untangling Learner Trends." *Critical Multilingualism Studies* 8:1 (2020): pp. 80–103. ISSN 2325–2871.

Introduction

More than most other elements of language, regional features are saturated with social meaning and connotations. Depending on the feature and the communicative context, regional language use can convey information about a speaker's socioeconomic status, origin, race, level of education, or gender, to name a few. For a variety of reasons, regional variants are often ignored in the language classroom: Instructors may not be familiar with them or may feel uncomfortable teaching forms or vocabulary not addressed in the textbook, or they may believe that regional forms will not be useful for students if they do not plan to use the target language beyond the academic setting. Dialect-specific cues are often seen as colloquial, stigmatized, or non-academic, best saved for advanced classes that teach specifically about dialects, and some teachers feel there is already so much material to cover that adding information about regional variation would be excessive or impossible (Schmidt-Rinehart and Leloup 2017). That said, research on foreign and second language (L2) regional sound acquisition suggests that learners can and do develop working knowledge of regional variation, both in and outside of the language classroom. The present paper will consider both learners' development of perceptual knowledge about dialect acquisition and their production of regional cues.

Although both are essential in the study of L2 phonological dialect acquisition, neither perception nor production alone can provide a full picture of a learner's development. A subfield of sociolinguistics, dialectology focuses on regional variation. Learners' acquisition of regional variation in L2 phonetic variants involves working knowledge about the L2 phonology and the subphonemic variability that occurs in any known varieties, as well as the sociolinguistic norms that determine use. Perception studies examine how listeners perceive and encode speech sounds, for instance how learners categorize dialectally variant speech sounds (Del Saz 2019; Escalante 2018; Fox and McGory 2007; George 2014; Schmidt 2018) and L2 learners' comprehension of different regional varieties (Major, Fitzmaurice, Bunta, and Balasubramanian 2005; Schmidt 2009; Schoonmaker-Gates 2018a; Trimble 2014). These studies provide information about learners' L2 phonological and phonetic development of regional cues and speech, and any factors that influence that process. Meanwhile, production studies focus on learners' ability and decision to reproduce regional variants in their own speech (Bayley 1996; Geeslin and Gudmestad 2008; George and Hoffman-González 2019; Howard, Lemée, and Regan 2006; Raish 2015; Regan, Howard, and Lemée 2009; Reynolds-Case 2013; Ringer-Hilfinger 2012; Trentman 2013; Wolfram, Carter, and Moriello 2004). Production studies, therefore, provide insight into a learner's developing L2 sociocultural knowledge and the social, linguistic, and situational factors that affect this kind of acquisition. This paper reviews research findings from recent work on L2 Spanish acquisition to draw conclusions

regarding what is known about learners' perception and use of regional speech sounds. Furthermore, this paper will discuss multiple existing theoretical models of L2 speech and sociolinguistic learning to explain the observations from this body of research.

For the purposes of this paper, the term *dialect* refers to the variety of a language spoken in a given geographic location. In the Spanish-speaking world, dialects are often drawn according to country borders, like Mexican Spanish, but additional specification is possible, if reference is made to a particular region or city within a country, like Guadalajara Spanish. Geographic varieties can differ according to phonology, syntax, morphology, the lexicon, pragmatics, and sociolinguistics. In this paper the focus will be on L2 learners' perception and production of phonetic cues that vary dialectally, and the sociolinguistic reality that surrounds the cues, as certain features show variation according to sociolinguistic traits like gender, age, or socioeconomic status that differ across dialects. For instance, /s/ aspiration, the reduction of /s/ to [h] as in *vamos* produced 'vamoh', exhibits sociolinguistic variation both within and across speakers in most dialects of Spanish, although it is especially widespread throughout the Caribbean and coastal regions (Hualde 2013).

In linguistics, the study of dialectology is a descriptive endeavor, one that focuses on representing and understanding regional norms of use. The study of prescriptive language use, although less common in linguistics, is important for the purposes of our discussion of L2 instruction and acquisition. Prescriptive language norms are those that allot certain prestige to some forms and stigmatize others. They represent *standard* language, which refers to the variety of a language that is codified in dictionaries and grammars, used in many formal aspects of society including the media, government, commerce, and education. There is evidence that the forms used by L2 instructors tend to be more standard and prescriptive than the input learners receive outside of the classroom setting (Mougeon, Nadasdi, and Rehner 2004; Li 2010, 2014), and in some ethnographic research the language classroom itself has been considered to be its own community of practice (Norton 2000; Toohey 2000). A community of practice is a group in which members who co-construct social and linguistic meaning are unified by a common enterprise (Eckert 2000). Although not geographic per se, the initial "classroom variety" learned by many L2 students before they study abroad or socialize with native speakers will be considered in most cases to be the "first dialect" (D1) that language learners acquire. This paper and most of the research it reviews examines the acquisition of additional regional varieties by learners, or their "second dialect" (D2).

Even among native speakers, research has found that exposure to new or second dialects leads to changes in the perception and production of regionally-variant phonetic cues. For example,

Munro, Derwing, and Flege (1999) found that Canadian participants who relocated to Alabama were deemed to sound more "American" than Canadian participants in Canada by both American and Canadian listeners. Evans and Iverson (2007) followed a group of university students relocating from northern to southern England and found that over time their vowels were progressively more southern according to both judges and acoustic measures. Even native speakers' perception changes with D2 exposure and contact, as attested in Clopper and Pisoni (2004), who found that American English listeners are more accurate at identifying the origin of speakers from regions where they themselves had lived. The findings that D2 acquisition occurs in the L1 provides a backdrop for discussing the same phenomenon in L2 learners. If learners are first exposed to the L2 in a formal classroom setting, the D1 they develop will likely be a more academic, standard or universal variety, devoid of many regionally associated variants. With additional exposure to native speech outside of the classroom, however, learners will experience alternative variants that they either incorporate into their existing D1 or, with ample exposure, could become part of a developing D2.

Part 1: L2 Perceptual Learning of Regional Varieties and Cues

This section surveys work on the L2 perception of regional accents and dialect variants in Spanish by L2 learners. The focus will be on the empirical evidence and the factors that predict and influence learners' phonological development, but also on the theoretical models that can be applied to the acquisition of regional variant sounds in perception.

General Speech Processing

In speech perception theory, regional variation is considered just one of many ways in which speech can vary. Between-speaker variation can be on the one hand physically driven, for instance when formant values vary according to different vocal tract lengths, or on the other hand socially driven, as is seen in differences related to socioeconomic class or regional variation. Within-speaker variation also occurs, since an individual does not always speak the same across all social contexts, topics, or emotional states. Different speech perception theories have different ways of conceptualizing what the listener does with speech variability in speech processing. For example, abstractionist models postulate that listeners normalize variability and match phonetic information from the signal onto idealized, discrete symbols or phonemes stored in the listener's brain in a bottom-up fashion (Halle 1956). According to abstractionist models, dialect and talker familiarity could occur when listeners generalize variable acoustic-phonetic information across the entire lexicon to facilitate processing of a speaker or dialect (Cutler 2008). Another example are episodic and usage-based models of speech processing,

which posit the storage of instance-specific exemplars in memory that incorporate extralinguistic information like a speaker's voice, age, gender, and dialect (Bybee 2001; Goh 2005; McMichael 1999). According to this view, multiple traces of the same lexical item exist in the brain, so when a familiar speaker or dialect is experienced, the speech is mapped onto the existing exemplars and speech processing is facilitated.

Talker familiarity has been shown to benefit speech processing in both the L1 (Goh 2005; Palmeri, Goldinger, and Pisoni 1993; Pisoni and Lively 1995) and the L2 (Drozdova, van Hout, and Scharenborg 2019; Schoonmaker-Gates 2014). For instance, Drozdova, van Hout, and Scharenborg (2019) examined the effects of talker familiarity on nonnative listeners' recognition memory and word identification abilities. Participants were L1 Dutch speakers learning English who took part in a 4-day voice recognition training and then subsequently participated in a recognition memory task to test their memory of 64 words repeated in either the trained or novel voices. The results showed that participants were able to remember the words better in familiar voices than in the novel voices. This L2 familiarity processing benefit could be related to the availability of learners' processing resources, which are greater when hearing a familiar speaker. In a similar study, Schoonmaker-Gates (2014) found that for beginning and intermediate-level learners, lexical familiarity was a more significant predictor of participants' word recognition memory than were dialect or even speaker familiarity. Listeners in that study performed significantly better on a memory task for words that they rated as highly familiar, regardless of speaker or regional accent familiarity. This could be explained by the primacy of meaning over form, which is sometimes observed in L2 learners, with meaning understood as existing lexical knowledge and form as existing voice or dialectal knowledge.

Although not extensive, the L2 research on this topic suggests that language learners, like native speakers, encode and store both linguistic and talker-specific (indexical) information in memory and that these factors interact in speech perception and comprehension. Drozdova (2018) refers to evidence that both linguistic and talker-specific cues are encoded in memory and therefore argues that an adequate account of speech perception for L2 learning must include both linguistic and indexical processing.

L2 Speech Perception Models

L2 perceptual learning models explain difficulties that arise when listeners with limited L2 experience perceive sounds from a new language in terms of their L1 phonological representations, gestures, or parameters. The models discussed here, the SLM, the PAM-L2,

and the L2P2 (Best and Tyler 2007; Escudero 2005; Flege 1995), also posit that perception of the new language will improve as learners gain exposure and experience with the language, and will either modify their existing categories to accommodate the new language or develop a completely separate L2 perception interface. Generally, these models discuss similarities and differences between L1 and L2 sounds, making predictions about perceptual difficulty based on those differences. These models also all postulate some sort of perceptual interface by which listeners detect relevant, invariant elements of sounds that correspond to phonetic categories in memory and ignore irrelevant acoustic differences. Although the models discussed below were not created to explain the perception of new dialect sounds, they are of interest here because they explain how someone with an existing language or dialect (L1 or D1) encounters and develops perceptual knowledge of a second language or dialect (L2 or D2). Ultimately, the predictions made for first and second languages may also apply to first and second dialects.

The Speech Language Model (or SLM; Flege 1995) makes a number of predictions about L2 sound assimilation based on similarities and differences between the way that sounds are classified into phonetic categories in the L1 and the L2. According to the SLM, an L2 sound that is dissimilar to the closest sounds in the L1 will not undergo category assimilation and will be easy to perceive. However, a sound or contrast that is similar but different from the closest L1 sound will be difficult to perceive and produce because it maps onto existing L1 categories that do not match those in the L2. For instance, Spanish has only a single high front vowel /i/ that corresponds fairly well with the English tense vowel /i/ (as in the word "seat") but corresponds poorly with the English high front lax vowel /ɪ/ found in the word "sit". According to the SLM, a native Spanish speaker would likely map both the tense and the lax English vowels onto their single native /i/ category and hear the two words, "seat" and "sit", interchangeably. According to this model, phonetic reorganization can occur throughout the lifespan to accommodate L2 sound learning. It also postulates that L1 and L2 categories coexist in the same plane, which explains the bidirectional interaction that has been observed between the L1 and L2 (Flege 1992).

The Perceptual Assimilation Model (PAM; Best 1995) and the updated PAM-L2 (Best and Tyler 2007) also posit that perceptual learning difficulty will depend on the relationship of the L1 and L2 categories and the goodness of the fit between new sounds and the existing L1 system. This model assumes that as learners gain experience with the L2, they develop three different types of knowledge: articulatory knowledge about low-level gestures, phonetic knowledge about invariant gestural relationships, and phonological knowledge about the mental organization of the L2 system. Although according to the PAM-L2, new sound contrasts are mapped onto the most similar L1 categories initially, with experience learners develop the

ability to detect critical differences in the L2 and overlook irrelevant lower-level variants in the speech signal.

A final yet equally influential model is the Second Language Linguistic Perception model (or L2P2; Escudero 2005). Similar to the other models, the L2P2 makes predictions about the facility of L2 speech perception based on the relationship between the L1 and the L2, and like the PAM-L2, it considers the role of both perceptual (phonetic) and representational (phonological) processing. This model differs from the others in that it postulates the existence of an entirely separate perception system for the L2, which starts out as a copy of the L1 system and is modified as the learner develops additional L2 exposure and experience. According to this model, phonetic and phonological processing both occur but not on the same level, and a language learner can gain full phonetic fluency in their L2 because the L2 speech perception system develops separately from the L1.

L2 Perception Research

Research in perception has examined L2 learners' comprehension of regional accents (Eisenstein and Verdi 1985; Major, Fitzmaurice, Bunta, and Balasubramanian 2005; Schmidt 2009; Trimble 2014), their identification of specific regional sounds (Bedinghaus 2015; Del Saz 2019; Fox and McGory 2007; Schmidt 2018) and their ability to identify regional accents (Clopper and Bradlow 2009; Cunningham-Andersson 1996; Eisenstein 1982; LaMonica 2020; Stephan 1997; Sullivan and Karst 1996). These different focuses in perception elucidate different abilities in L2 learners. Intelligibility studies examine learners' global comprehension of one or more regional accents to determine the effects of dialects on learners' L2 understanding. Sound identification studies provide insight into learners' L2 phonological category development and how they perceive and encode specific phonetic variants associated with dialects. Meanwhile, dialect recognition studies require participants to differentiate or identify many dialects at once, detecting and recognizing phonetic differences, as well as employing explicit geographic knowledge. Although they represent different skills, the three areas of research have found similar factors to influence L2 learners' regional sound development: the amount and type of prior exposure or experience with a variety, L2 proficiency, explicit instruction or awareness, and the sounds present in a given regional variety.

Exposure appears in much of the literature as the primordial component for gains to occur in dialect perception. In general, learners who have been exposed to a regional variety understand it better (Eisenstein and Verdi 1985; Schmidt 2009; Trimble 2014), identify it more accurately (Cunningham-Andersson 1996; LaMonica 2020), and encode the regional variants more

accurately (Del Saz 2019; Schmidt 2018) than learners without exposure. The length of exposure may also play a role although even minimal exposure seems to be beneficial. For instance, after only three weeks of study abroad in the Dominican Republic, Schmidt (2009) found improvement in learners' comprehension of Dominican Spanish. Del Saz (2019) compared the perception of /s/ weakening by students with no study abroad experience, three weeks exposure, or two months exposure. Participants abroad were in southern Spain, a location where word-final /s/ aspiration is common, so the final -s in the word *casas* ("houses") might be pronounced there as an aspirant [h] or even eliminated entirely, creating a homonym with the singular form *casa* ("house"). The two-month group perceived aspirated /s/ with significantly more accuracy than the three-week group, who, in turn, outperformed the no exposure group on the same task. That said, there seems to be a ceiling effect on the benefits that the duration of the exposure can have. Specifically, Escalante (2018) found evidence that learners abroad may plateau after two months of exposure. Her study followed one group of students during a year abroad in coastal Ecuador, another location where /s/ aspiration is common. Although she found similar initial improvements in learners after two months abroad, perception held at an average of 40% accurate perception of /s/, with no additional significant improvement in perception for the rest of the year.

Studies have also indicated that dialect exposure in the classroom setting and through social or extracurricular contact leads to better dialect comprehension, regional sound encoding, and recognition of regional variants by language learners (Schmidt 2018; Schoonmaker-Gates 2017, 2018a; Trimble 2014). For instance, Schmidt (2018) examined the effects of regional exposure on the perception of /s/ aspiration in Spanish by L1 English speakers. She found that learners who reported either study abroad exposure or exposure through social contact with speakers of aspirating varieties identified aspirated [h] more accurately than those without exposure. Schoonmaker-Gates (2018a) also looked at the effects of type and number of different sources of dialect exposure on the intelligibility of six Spanish dialects for L1 English speakers. She found that study abroad exposure, exposure to a regional variety through a native instructor, and exposure through the media all predicted more accurate learner comprehension, as did reporting multiple sources of exposure, which suggests that breadth of exposure is important as well.

Despite these findings, there is indication that gains in regional L2 knowledge and perceptual abilities may be tempered by proficiency, both in the classroom and abroad. For example, Del Saz (2019) compared the perception of /s/ aspiration by students at multiple proficiency levels after two months abroad and found significantly higher accuracy among intermediate and advanced learners than among beginners. Other studies have also shown significant and reliable

proficiency effects. For instance, both Schmidt (2018) and Schoonmaker-Gates (2018a) found that L2 proficiency predicted learners' perceptual differences, with advanced learners outperforming beginner and in some cases intermediate learners. Additional studies with similar results were Alcorn (2018), Escalante (2018), George (2014), and Trimble (2014).

Although difficulties dissipate with additional exposure and proficiency, research on comprehension suggests that certain regional accents are easier for L2 learners to understand than others. Trimble (2014) investigated the intelligibility of five regional varieties of Spanish in L1 English speakers in a classroom setting, and he found that dialects from Spain and the Caribbean had the lowest intelligibility for learners and dialects from Mexico and Colombia were the most intelligible. Schoonmaker-Gates (2018a) partially corroborated these findings in a similar study, finding that comprehension was higher for accents from Mexico, Peru, and Spain, and lower for accents from Cuba, Argentina, and Colombia. Additional studies suggest that this difference in comprehensibility may be due to the specific regional sounds that characterize a variety. Schmidt (2009) who examined learners' comprehension of Dominican Spanish found that /d/ weakening and /n/ velarization were the least detrimental to intelligibility, and /s/ weakening was the most detrimental.

Not only do the cues differ across regional accents, but research suggests that language learners do not attend to the same cues in the speech signal that native speakers do, which also could account for some of learners' perceptual difficulty. Clopper and Bradlow (2009) performed a free classification task of U.S. dialects by native and nonnative English listeners to find that nonnative speakers used fewer cues than native listeners did for classifying speakers. LaMonica (2020) performed a similar study that compared native and nonnative listener dialect identification of U.S. English, finding that learners did not always coincide with native speakers in the dialects they were most able to identify. Proficiency in L2 learners probably also affects their attention to cues, as shown in a study of L2 Spanish. Alcorn (2018) examined L1 English speakers' ability to classify speakers of three different regional varieties into same-dialect groups, and found that intermediate learners mentioned attending to phonetic features more often than beginning learners did.

In sum, the findings from studies on L2 dialect perception have shown that dialect exposure, length of exposure, and L2 proficiency correlate with more accurate perception of regional varieties, although the regional cues and accents themselves also explain learner variability.

Applying L2 Perceptual Models to L2 Dialect Sound Acquisition

One fundamental finding from the research discussed is that the perception of new dialect sounds improves with L2 proficiency and exposure to a target variety. Both abstractionist and exemplar models of speech perception, as well as all three L2 perceptual learning models considered here predict more accurate or target-like L2 perception when learners experience familiar speakers, cues, and varieties. Additionally, the finding that certain cues and accents present greater difficulty for learners, although this effect may lessen with L2 proficiency, is likely due to shortcomings in the learner's development of L2 phonological categories and their phonetic processing interface. Explaining this will depend largely on the cue itself and, as predicted by the L2 speech perception models, on the relationship between the L1 and the L2. For example, the findings from Del Saz (2019) showed that learners abroad, but not those without study abroad experience, were able to collapse two sounds that are separate in their L1, [s] and [h], into a single L2 category /s/. This means that after at least three weeks abroad, learners come to associate the [h] sound with the /s/ category in Spanish. Schmidt (2018) found similar results, but in her case learner variability was explained by their L2 proficiency. Dialectally speaking, [h] is a new sound in Spanish for these listeners, and while it exists in English, it occurs only in a different phonetic context. The same is true of other dialectal features in Spanish, like the [ʒ] in Argentina (as the pronoun *yo* would be pronounced not with the -y [ʝo] in *yogurt* but with the -s sound [ʒ] in *measure*) or the /ϴ/ in Spain (as the -c in *gracias* would be produced as a "th" [ϴ] sound rather than a "s" [s] sound, which is more common (Hualde 2013)). In terms of L1 English speakers acquiring a D2 in Spanish, the act of learning to associate [h] with /s/, [ʒ] with /ʝ/, and [ϴ] with /s/ involves perceiving a sound that already exists in the L1 and mapping it onto an existing L2 category.

Of the three models, the PAM-L2 and the SLM do not explicitly discuss mapping two L1 sounds onto the same L2 category. The SLM predicts that L2 sounds will be perceived in terms of the closest L1 sound, so if learners fail to recognize the allophonic nature of any of the new dialect sounds, they would likely establish two separate categories for the allophones. This is similar to what the L2P2 predicts in its "Subset scenario." The Subset scenario of the L2P2 (Escudero 2005; van Leussen and Escudero 2015) is relevant when learners must collapse two or more L1 categories into a single L2 category. In this type of situation, if the L2 learner does not reduce and modify the boundaries of their L2 categories, the influence of the L1 categories will create "phantom" lexical contrasts, word differences in the L2 where there are none.

Schoonmaker-Gates (2018b) observed this phenomenon in a study of L2 Spanish learners' perception of the Argentine [ʒ] and the Spanish /ϴ/. In the study, participants determined whether dyads of words and nonwords were the same or different. Some of the dyads were spoken in the same dialectal accent and others were spoken in different dialect accents. The

results revealed that participant accuracy for contexts with Argentine [ʒ] was 91% for same-word, same-dialect dyads but only 60% for same-word, different-dialect dyads. For instance, listeners might have heard the word *mayo*, one produced with the [ʝ] variant and one with the [ʒ] variant. Only 40% of the time did they identify the two productions as the same word. This suggests that learners were perceiving the words as lexical contrasts, exactly as van Leussen and Escudero (2015) predicted.

Although the existing L2 perceptual learning models are useful for explaining some of the regional phonological learning observed in the L2 research so far, they fail to address an important factor, unique to dialect acquisition but also a concern for research on third language (L3) acquisition and multilingualism. In the L2 models of Spanish sound learning, the focus is on transfer from the L1. In L3 acquisition and in dialect acquisition by L2 learners, the existing L2 or, in this case, the existing classroom variety can also transfer and so predict how new sounds will be encoded. Although some of the more categorical or prescriptive regional sounds discussed here will be used by instructors or in pedagogical materials in the classroom setting, others that are more variable or that have certain social connotations may not. If a sound is not part of the learner's existing D1, they may hear it and draw on their L2, rather than their L1, knowledge for information on how to encode it. If they use lexical knowledge, then they may recognize the new sound to be a variant of existing sounds they know, but if they draw on phonetic knowledge then they may assign the sound to its own L2 category, at least initially. Although this is a similar outcome as the prediction from the SLM or the L2P2, the process is different.

The idea that learners might be influenced by their first variety, that is their D1, instead of their L1 in dialect acquisition seems especially compelling in light of certain models of L3 acquisition. According to the Typological Primacy Model (Rothman 2011), transfer in the L3 initially comes from the language that is most structurally similar, be it the L1 or the L2. In the case of a new regional variety in the L2, the new regional variety would surely be more typologically similar to the classroom variety learned previously than to the L1, a different language altogether. The Phonological Permeability Hypothesis (Cabrelli Amaro 2017) predicts transfer from both the L1 and the L2 into the L3, with more native-like L2 proficiency leading to greater L2 transfer. It also seems plausible that those with higher Spanish proficiency would draw more from their existing classroom knowledge of Spanish than from English. Although empirical evidence is needed to confirm this postulation, it seems possible that learners encoding new or second dialect (D2) sounds will experience more transfer from the established, typologically similar first classroom variety of Spanish (D1) than from the L1.

Part 2: L2 Production of Regional Phonetic Cues

This section, like the previous one, will survey findings from previous literature and consider how theory accounts for learner trends in regional L2 sociophonetic acquisition. The focus here, however, will be on the production of regional variants by L2 learners instead of perception, which will provide insight on the factors that influence learners' L2 sociolinguistic competence. Preston's (2002) psycholinguistic framework, first applied to the L2 acquisition of sociolinguistic variation in Tarone (2007), posits a multitude of factors that predict speaker selection of one variable form over another. These are divided into three categories: sociocultural factors, linguistic factors, and time of acquisition factors. Sociocultural factors refer to the social components or norms of the communicative act, like socioeconomic class or nonnative identity. Linguistic factors refer to the characteristics of a specific cue like its salience, stress placement, or position in the word that affect a learner's choice between variants. Time factors can refer to the effects of L2 proficiency on variant selection or to the primacy of forms (L1 or L2) learned early in the acquisition process over those learned late. Geeslin (2020) makes important additions to Preston's (2002) account, envisioning a more dynamic relationship between many of the factors and how they might influence the specific interactions between learners and native speakers, affecting learner acquisition by tempering the input that a learner experiences. Geeslin (2020) predicts that individual traits like L2 proficiency and situation factors like the speakers' relationship will continuously influence the interaction as it unfolds and also as it affects any future opportunities for interaction. This model will be especially useful for accounting for learner dialect acquisition because it considers how learner input and social interaction, both driving forces in L2 sociolinguistic acquisition, are influenced by sociocultural, linguistic, and situational factors.

An additional model that will serve as a backdrop for unpacking some of the findings from L2 regional sound production is Social Network Theory (Milroy 1987). Within sociolinguistics, social networks have been used primarily to explain language change within a speech community, but they can also provide important information on how an individual interacts and integrates within that community. Milroy and Llamas (2013) stress the fact that personal networks are contextualized within broader social frameworks. According to this theory, then, the personal social network and macrolevel framework it is housed in are not mutually exclusive. For instance, a learner abroad might be influenced by the macrolevel framework of the target culture's national or regional identity, but at the same time be affected by smaller scale social interactions like the ones highlighted in Geeslin (2020). Theory suggests that poststructuralist identity (Block 2007) is highly fluid and socially determined, and in L2 dialect acquisition both social networks and identity will be relevant.

L2 Production Research

While perception studies provide information about L2 learners' abilities to recognize, understand, and encode regional accents and speech sounds, research on production examines the frequency with which L2 learners adopt the phonetic features of a region or regions into their speech. Unlike the more universal gains seen in dialect perception abilities in L2 learners with regional exposure and adequate proficiency, research in L2 production generally shows low rates of regional adoption and inconsistent use of phonetic cues by language learners. For instance, Geeslin and Gudmestad (2008) looked at the production of /ϴ/ (which is highly categorical and widespread in central Spain) and /s/ weakening (which is less categorical but common in multiple regions) by L2 Spanish learners. Of their 130 participants, only 9 produced /ϴ/ and only 5 produced /s/ weakening, and most did so inconsistently. Other studies of /ϴ/ production by L2 learners of Spanish have also found that regional cue adoption is limited to a select few learners (George 2014; Knouse 2012; Pope 2016; Ringer-Hilfinger 2012). George (2014, p. 102) confirmed the non-categorical nature of /ϴ/ use among learners, as "high frequency" users of /ϴ/ in her study only used the feature about 30% of the time.

Research on other cues and in other languages suggests that these low numbers may be due to learner difficulties with the cue itself. George and Hoffman-González (2019) found lower rates of acquisition for the Spanish /ϴ/ than for the Argentine [ʒ]. They explain that it could be that [ʒ] is easier to adopt than /ϴ/ because of the linguistic rules that govern the use of /ϴ/, which is in complementary distribution with /s/. Other linguistic factors may also influence learner use of a regional variant, including its salience, its frequency in a given variety and in the learner's input, and how categorical or well-established it is in the target variety. For example, Regan, Howard, and Lemée (2009) found evidence that learners showed higher rates of regional adoption of cues that are well-established than of cues that represent change in progress.

The low rates of /s/ weakening among learners in Geeslin and Gudmestad (2008) also could be attributed to linguistic factors like its variable nature and low salience in syllable final or word-final position. How variable or categorical a cue is must be addressed because cues that vary not only from speaker to speaker but also in the speech of a single individual may show up very little in the input experienced by L2 learners. According to Geeslin (2020), access to input is shaped by learner and interlocutor characteristics, and a highly variable cue like /s/ weakening may not show up much in learner-directed speech, although this will depend on factors like its frequency in a given variety and a learner's proficiency, which the native speaker will sense and use to guide the interaction. For instance, Geeslin and Gudmestad (2008) found that virtually no learners from the lowest level adopted /s/ weakening after study abroad. It is likely

that beginners have fewer opportunities for meaningful interaction with native speakers to begin with, receiving less of the important input and feedback necessary for dialect learning to occur. Lower-level learners may also have fewer capabilities and attentional resources which will limit how much they learn from their interactions.

Additionally, the social norms and connotations associated with a given regional variant will also affect both how it is represented in the learner's input and how the learner experiences it. Geeslin and Schmidt (2018) examined the attitudes held by L2 learners towards various regional accents in Spanish and found that these attitudes were significantly impacted by study abroad experience, L2 proficiency, and also the cues themselves that were present in the speech. Because regional variants are a reflection of individual identity, whether or not a language learner adopts local norms abroad can also be the result of a conscious or unconscious decision to integrate (or not) with the host culture. Although not a study in Spanish, Raish (2015) reported greater regional cue adoption by heritage learners studying in Egypt than by other learners, but only when the heritage learners identified themselves as being of Egyptian descent. George and Hoffman-González (2019) also found that some L2 learners abroad assert their nonnative or heritage identity abroad by intentionally not adopting regional variants. Meanwhile, as shown in Kinginger's (2004) case study of an American student in France, some learners become highly integrated within the target culture, developing an intercultural identity and the regional speech characteristics that go along with it.

An additional, highly individual factor that emerges in the research on L2 production of regional sounds is the effects of social networks. Pope (2016) found that social networks were an important factor that predicted learners' production of Spanish /ϴ/ and the uvular /χ/ during study abroad in Spain. Although (like others) he observed scant use of the dialectal variants among his 10 participants (one did use more /ϴ/ than the rest), he noted that the participants who exhibited the most regional adoption were the ones with the largest Spanish-speaking social networks. Meanwhile, learners abroad who did not form strong friendships with native speakers were among the ones with the least regional adaptation in their speech. Similar findings were reported in Arabic by Trentman (2013), who found that L2 learners in Egypt who socialized exclusively in Arabic showed higher rates of regional adoption than those who socialized primarily in English. Bayley (1996) reported that the language or languages spoken by individuals in the L2 learner's social networks predicted their grammatical accuracy, and these recent studies on L2 regional acquisition confirm that this is a factor that impacts regional cue acquisition, probably because of the strong correlation between the social network and the learner's cultural integration.

Finally, the finding that many L2 learners resist replacing the forms learned in the classroom setting with socially acquired regional variants could be, as Preston (2002) suggests, because of the primacy or automaticity of forms learned early on. In Spanish, very few textbooks include instructional materials on dialect variants like /s/ aspiration or *voseo* (Gilmore 2009; Wieczorek 1991, 1992) although both phenomena are widespread in the Spanish-speaking world. Research also suggests that L2 learners are exposed to more standard oral language use in the classroom, which they ultimately adopt, than what is observed in their native speaker peers (Li 2010, 2014; Mougeon, Nadasdi, and Rehner 2004). Learners may feel that the ease of these classroom forms outweighs any social returns that changing them or adopting regional cues would provide, although this will also depend on their individual motivations and future plans for using the language. The idea that forms learned through instruction are more automatic than experiential dialect forms is especially interesting in light of findings from studies of naturalistic L2 learners, like Liu (1991), that show greater gains on multiple levels for learning in socially meaningful contexts than in at-home contexts (Collentine 2004; Díaz-Campos 2006; Lafford 2004; Segalowitz and Freed 2004). This is further indication that individual learner traits and other factors affecting their target language interactions and input must be considered in future research on L2 regional sound acquisition.

The fact that exposure, usually through study abroad, appears to be a prerequisite of regional cue adoption suggests that high impact social exposure is how this type of learning takes place. Yet the low rates of regional variant adoption among L2 learners suggest that unlike perception, mere exposure is not enough to elicit production. Whether or not to adopt regional forms in L2 speech seems to be a very personal decision, one influenced by individual, social, linguistic, and situational factors, as attested in both Preston's (2002) and Geeslin's (2020) models. The learners' individual identity is also invoked in the use or non-use of regional variants, when students abroad assert their nonnative identities by not adopting regional variants and develop their target culture affiliation by aligning their language use with the local speech community abroad.

Implications for Pedagogy

Most studies discussed in this paper, especially those on production, have examined students in study abroad situations, and the question remains what the implications are of this line of research for pedagogy and student learning. Multiple surveys of language textbooks and interviews with post-secondary language instructors have documented that there is little time spent or focus on regional variation in most language classrooms (Gallego and Conley 2013; Sánchez-Avendaño 2004; Wieczorek 1991). As discussed in the introduction, this is

understandable as most learners in lower instructional levels only aim to develop their basic communication skills in the target language, and those interested in regional variation are often catered to in advanced linguistics classes. Even so, select instructors and students may be interested in incorporating some explicit instruction on regional language use into their lessons. This is a way of drawing attention to the intersection of language and culture, and furthermore many learners are quite curious about the colloquial target language forms they hear in the media, during travel, or in the professional environment. Sensing a disconnect between the language they are learning in the classroom and what is used in "the real world", many learners are naturally drawn to discussions about general language variation and energized by lessons that incorporate visions of the vernacular in the L2.

Therefore, in the way of advice for instructors interested in preparing students for these conversations, it can be helpful to raise learners' awareness about how languages vary in general, perhaps by first exploring with students how their L1 or L1s vary by region, age, the interpersonal relationship, and other sociolinguistic factors. Instruction on L2 variation can be easily incorporated into a foreign language curriculum by extending discussions or analyses of cultural productions, practices, or history to include some basic linguistic information about the region in question. For instance, in a unit on Peninsular Spain, an instructor of first year Spanish could add a lesson on the main regional accent, perhaps discussing the rules of use of the /θ/ and providing sample sound files or activities where students determine whether an individual is from Spain or not. Instructors could also teach about the concept of formality in Castilian Spanish, reinforcing any prior instruction on the use of *tú*/*usted* or *vosotros,* and incorporating a few colloquialisms or phrases typical of the region into their instruction. When possible, learners' awareness can be raised to regional language differences simply by being explicit about where, with whom, and in what contexts the vocabulary and grammar they are learning might be used. Assignments and lessons that draw learners' attention to linguistic variation should aim for quality over quantity, taking into account learners' level to avoid overwhelming students with too much variation or variability that they may find difficult to master or remember.

Conclusion

To sum up, the research analyzed in this article suggests that language learners' perception of regional sound variants and accents is primarily impacted by their exposure to a regional variety, but also varies with L2 proficiency and the specific regional sounds and cues present in a dialect. Taken together, the research on dialect perception suggests that learners develop their dialectal knowledge experientially and that this knowledge informs their L2 perception,

becoming part of their working use of the target language. Although models of L2 speech learning suggest that the L1 will be important in determining perception of new or second dialect cues, there is promising evidence that the learner's D1, usually a standard classroom variety, may also dictate how they encode new regional speech sounds.

Research on production shows that individual factors like L2 proficiency, the social network, and identity are at least as important as exposure in predicting learners' adoption of phonetic regional cues. Applying the regional acquisition findings to sociolinguistic learning models like Geeslin (2020) affirms the need for additional research on this topic and specifically examinations of learners' L2 input and the interplay between the many social, linguistic, and situational factors that determine native encounters. Input and native speaker interaction are ultimately what drive L2 sociolinguistic and regional variety development. The conclusion that regional cue adoption has less to do with acquisition and more to do with personal preference and input opportunities points to the importance of perception studies and those that include participant reflection to elicit a fuller vision of learners' regional development. Because of the truly interdisciplinary nature of the developing field of L2 sociophonetics and dialectology, future research is needed that maps a variety of social, linguistic, and individual factors and their role in L2 regional acquisition.

References

Bayley, Robert. 1996. "Competing constraints on variation in the speech of adult Chinese learners of English." In: *Second language acquisition and linguistic variation*, edited by Robert Bayley and Dennis R. Preston, 97–120. Amsterdam: John Benjamins. https://doi.org/10.1075/sibil.10.05bay

Bedinghaus, Robert W. 2015. *The Effect of Exposure to Phonological Variation on Perceptual Categorization and Lexical Access in Second Language Spanish: The Case of /s/-aspiration in Western Andalusian Spanish*. (Unpublished doctoral thesis.) Indiana University: Bloomington, IN.

Best, Catherine. 1995. "A direct realist view of cross-language speech perception." In: *Speech Perception and Linguistic Experience*, edited by Winifred Strange, 171–204. Timonium, MD: York Press.

Best, Catherine T. and Michael D. Tyler. 2007. "Nonnative and second-language speech perception: Commonalities and complementarities." In: *Language Experience in Second*

Language Speech Learning: In Honor of James Emil Flege, edited by Ocke-Schwen Bohn and Murray J. Munro, 1–47. Amsterdam: John Benjamins. https://doi.org/10.1075/lllt.17.07bes

Block, David. 2007. "The rise of identity in SLA research, post Firth and Wagner (1997)." *Modern Language Journal 91*(S1): 863–876. https://doi.org/10.1111/j.1540-4781.2007.00674.x

Bybee, Joan. 2001. "Frequency effects on French liaison." In: *Frequency and the Emergence of Linguistic Structure*, edited by Joan L. Bybee and Paul J. Hopper, 337–360. Amsterdam: John Benjamins. https://doi.org/10.1075/tsl.45.17byb

Cabrelli Amaro, Jennifer. 2017. "Testing the Phonological Permeability Hypothesis: L3 phonological effects on L1 versus L2 systems." *International Journal of Bilingualism 21*(6): 698–717. https://doi.org/10.1177%2F1367006916637287

Clopper, Cynthia G. and Ann R. Bradlow. 2009. "Free classification of American English dialects by native and non-native listeners." *Journal of Phonetics 37*(4): 436–451. https://doi.org/10.1016/j.wocn.2009.07.004

Clopper, Cynthia G. and David B. Pisoni. 2004. "Homebodies and army brats: Some effects of early linguistic experience and residential history on dialect categorization." *Language Variation and Change 16*(1): 31–48. https://doi.org/10.1017/S0954394504161036

Collentine, Joseph. 2004. "The effects of learning contexts on morphosyntactic and lexical development." *Studies in Second Language Acquisition 26*(2): 227–248. https://doi.org/10.1017/S0272263104262040

Cunningham-Andersson, Una. 1996. "Learning to interpret sociodialectal cues." *Speech, Music and Hearing: Quarterly Progress and Status Report 37*(2): 155-158.

Cutler, Anne. 2008. "The abstract representations in speech processing." *The Quarterly Journal of Experimental Psychology 61*(11): 1601–1619. https://doi.org/10.1080/13803390802218542

Del Saz, María. 2019. "Native and nonnative perception of western andalusian spanish/s/aspiration in quiet and noise." *Studies in Second Language Acquisition 41*(4): 673–694. https://doi.org/10.1017/S0272263119000056

Díaz-Campos, Manuel. 2006. The effect of style in second language phonology: An analysis of segmental acquisition in study abroad and regular-classroom students. In: *Selected Proceedings of the 7th Conference on the Acquisition of Spanish and Portuguese as First*

and Second Languages, edited by Carol A. Klee and Timothy L. Face, 26–39. Somerville, MA: Cascadilla Proceedings Project.

Drozdova, Polina. 2018. *The Effects of Nativeness and Background Noise on the Perceptual Learning of Voices and Ambiguous Sounds*. Utrecht: LOT.

Drozdova, Polina, Roeland van Hout, and Odette Scharenborg. 2019. "Talker-familiarity benefit in non-native recognition memory and word identification: The role of listening conditions and proficiency." *Attention, Perception, & Psychophysics 81*(5)*:* 1675–1697. https://doi.org/10.3758/s13414-018-01657-5

Eckert, Penelope. 2000. *Communities of Practice*. New York: Cambridge University Press.

Eisenstein, Miriam. 1982. "A study of social variation in adult second language aquisition." *Language Learning 32*(2): 367–391. https://doi.org/10.1111/j.1467-1770.1982.tb00977.x

Eisenstein, Miriam and Gail Verdi. 1985. "The intelligibility of social dialects for working-class adult learners of English." *Language Learning 35*(2): 287–298. https://doi.org/10.1111/j.1467-1770.1985.tb01029.x

Escalante, Chelsea. 2018. "¡Ya pué[h]! Perception of coda-/s/ weakening among L2 and heritage speakers in coastal Ecuador." *EuroAmerican Journal of Applied Linguistics and Languages 5*(1): 1–26. http://doi.org/10.21283/2376905X.8.128

Escudero, Paola R. 2005. *Linguistic Perception and Second Language Acquisition: Explaining the Attainment of Optimal Phonological Categorization*. (Unpublished doctoral dissertation). Netherlands Graduate School of Linguistics: The Netherlands.

Evans, Brownen G. and Paul Iverson. 2007. "Plasticity in vowel perception and production: A study of accent change in young adults." *The Journal of the Acoustical Society of America 121*(6): 3814–3826. https://doi.org/10.1121/1.2722209

Flege, James E. 1992. "Speech learning in a second language." In: *Phonological Development: Models, Research, Implications*, edited by Charles A. Ferguson, Lise Menn, and Carol Stoel-Gammon, 565–604. Timonium, MD: York Press.

Flege, James E. 1995. "Second language speech learning: Theory, findings, and problems." In: *Speech Perception and Linguistic Experience,* edited by Winifred Strange, 233–277. Timonium, MD: York Press.

Fox, Robert A. and Julie T. McGory. 2007. "Second language acquisition of a regional dialect of American English by native Japanese speakers." In: *Language Experience in Second Language Speech Learning: In Honor of James Emil Flege*, edited by Ocke-Schwen Bohn

and Murray J. Munro, 117–134. Amsterdam: John Benjamins. https://doi.org/10.1075/lllt.17.13fox

Gallego, Muriel and Rebecca Conley. 2013. "Raising dialectical awareness in Spanish as a foreign language courses." *Cauce: Revista de Filología y su Didáctica* 36-37: 135–158.

Geeslin, Kimberly. 2020. "Variationist perspective(s) on interlocutor individual differences." In: C*ross-theoretical Explorations of Interlocutors and their Individual Differences*, edited by Laura Gurzynski-Weiss, 127–157. Philadelphia, PA: John Benjamins. https://doi.org/10.1075/lllt.53.06gee

Geeslin, Kimberly L. and Aarnes Gudmestad. 2008. "The acquisition of variation in second-language Spanish: An agenda for integrating studies of the L2 sound system." *Journal of Applied Linguistics and Professional Practice* 5(2): 137–157. https://doi.org/10.1558/japl.v5i2.137

Geeslin, Kimberly L. and Lauren B. Schmidt. 2018. "L2 learner sociolinguistic evaluations of regional varieties of Spanish." In: *The Routledge Handbook of Study Abroad Research and Practice*, edited by Cristina Sanz and Alfonso Morales-Front, 387–405. New York, NY: Routledge.

George, Angela. 2014. "Study abroad in central Spain: The development of regional phonological features." *Foreign Language Annals* 47(1): 97–114. https://doi.org/10.1111/flan.12065

George, Angela and Anne Hoffman-González. 2019. "Dialect and identity: US Heritage language learners of Spanish abroad." *Study Abroad Research in Second Language Acquisition and International Education* 4(2): 252–279. https://doi.org/10.1075/sar.17013.geo

Gilmore, Nicole J. 2009. *Twenty-one Countries, Millions of Native Speakers, and one Semester to Teach it All: Linguistic Variation in Entry-level College Textbooks for Spanish* (Unpublished master's thesis). Loyola University: Chicago, IL.

Goh, Winston D. 2005. "Talker variability and recognition memory: instance-specific and voice-specific effects." *Journal of Experimental Psychology: Learning, Memory, and Cognition 31*(1): 40–53. https://doi.org/10.1037/0278-7393.31.1.40

Halle, Morris. 1956. *For Roman Jakobson: Essays on the Occasion of his Sixtieth Birthday, 11, Oct 1956*. The Hague: Mouton.

Howard, Martin, Isabelle Lemée, and Vera Regan. 2006. "The L2 acquisition of a phonological variable: The case of/l/deletion in French." *Journal of French Language Studies 16*(1): 1–24. https://doi.org/10.1017/S0959269506002298

Hualde, José I. 2013. *Los Sonidos del Español: Spanish Language Edition*. Cambridge University Press.

Kinginger, Celeste. 2004. "Alice doesn't live here anymore: Foreign language learning and identity reconstruction." In: *Negotiation of Identities in Multilingual Contexts*, edited by Aneta Pavlenko and Adrian Blackledge, 219–242. Buffalo, NY: Multilingual Matters. https://doi.org/10.21832/9781853596483-010

Knouse, Stephanie M. 2012. "The acquisition of dialectal phonemes in a study abroad context: The case of the Castilian theta." *Foreign Language Annals 45*(4): 512–542. https://doi.org/10.1111/j.1944-9720.2013.12003.x

Lafford, Barbara A. 2004. "The effect of the context of learning on the use of communication strategies by learners of Spanish as a second language." *Studies in Second Language Acquisition 26*(2): 201–225. https://doi.org/10.1017/S0272263104262039

LaMonica, Clelia R. 2020. *A Combined Perceptual and Acoustical Account of US Dialect Distance* (Unpublished doctoral dissertation). Stockholm University: Sweden.

Li, Xiaoshi. 2010. "Sociolinguistic variation in the speech of learners of Chinese as a second language." *Language Learning 60*(2): 366–408. https://doi.org/10.1111/j.1467-9922.2009.00560.x

Li, Xiaoshi. 2014. "Variation in subject pronominal expression in L2 Chinese." *Studies in Second Language Acquisition 36*(1): 39–68. https://doi.org/10.1017/S0272263113000466

Liu, G. Q. 1991. *Interaction and Second Language Acquisition: A Case Study of a Chinese Child's Acquisition of English as a Second Language*. (Unpublished doctoral dissertation). La Trobe University: Melbourne, Australia.

Major, Roy, Susan M. Fitzmaurice, Ferenc Bunta, and Chandrika Balasubramanian. 2005. "Testing the effects of regional, ethnic, and international dialects of English on listening comprehension." *Language Learning 55*(1): 37–69. https://doi.org/10.1111/j.0023-8333.2005.00289.x

McMichael, Kipp. 1999. *Talker-Specific Effects in Recognition Memory for Sentences*. Unpublished manuscript.

Milroy, Lesley. 1987. *Language and Social Networks*. Oxford: Blackwell.

Milroy, Lesley and Carmen Llamas. 2013. "Social networks." In: *The Handbook of Language Variation and Change*, edited by J.K. Chambers and Natalie Schilling, 407–427. Oxford: Blackwell. https://doi.org/10.1002/9781118335598.ch19

Mougeon, Raymond, Terry Nasadi, and Katherine Rehner. 2004. *The Sociolinguistic Competence of Immersion Students*. Bristol, UK: Multilingual matters.

Munro, Murray J., Tracey M. Derwing, and James E. Flege. 1999. "Canadians in Alabama: A perceptual study of dialect acquisition in adults." *Journal of Phonetics 27*(4): 385–403. https://doi.org/10.1006/jpho.1999.0101

Norton, Bonny. 2000. *Identity and Language Learning: Gender, Ethnicity and Educational Change*. Harlow: Pearson Education.

Palmeri, Thomas J., Stephen D. Goldinger, and David B. Pisoni. 1993. "Episodic encoding of voice attributes and recognition memory for spoken words." *Journal of Experimental Psychology: Learning, Memory, and Cognition 19*(2): 309–328. https://doi.org/10.1037/0278-7393.19.2.309

Pisoni, David B. and Scott E. Lively. 1995. "Variability and invariance in speech perception: A new look at some old problems in perceptual learning." In: *Speech Perception and Linguistic Experience*, edited by Winifred Strange, 433–459. Timonium, MD: York Press.

Pope, Joshua. 2016. "The role of social networks in the acquisition of dialectal features during study abroad." In: *Spanish Language and Sociolinguistic Analysis*, edited by Sandro Sessarego and Fernando Tejedo-Herrero, 177–196. Amsterdam: John Benjamins. https://doi.org/10.1075/ihll.8.07pop

Preston, Dennis. 2002. "Perceptual dialectology: Aims, methods, findings." In: *Present-day Dialectology: Problems and Findings*, edited by Jan Berns and Jaap van Marle, 57–104. Berlin: De Gruyter. https://doi.org/10.1515/9783110904765.57

Raish, Michael. 2015. "The acquisition of an Egyptian phonological variant by US students in Cairo." *Foreign Language Annals 48*(2): 267–283. https://doi.org/10.1111/flan.12140

Regan, Vera, Martin Howard, and Isabelle Lemée. 2009. *The Acquisition of Sociolinguistic Competence in a Study Abroad Context*. Buffalo, NY: Multilingual Matters.

Reynolds-Case, Anne. 2013. "The value of short-term study abroad: An increase in students' cultural and pragmatic competency." *Foreign Language Annals 46*(2): 311–322. https://doi.org/10.1111/flan.12034

Ringer-Hilfinger, Kathryn. 2012. "Learner acquisition of dialect variation in a study abroad context: The case of the Spanish [θ]." *Foreign Language Annals 45*(3): 430–446. https://doi.org/10.1111/j.1944-9720.2012.01201.x

Rothman, Jason. 2011. "L3 syntactic transfer selectivity and typological determinacy: The typological primacy model." *Second Language Research 27*(1): 107–127. https://doi.org/10.1177%2F0267658310386439

Sánchez-Avendaño, Carlos. 2004. "Variación morfosintáctica y enseñanza del español como lengua extranjera: Reflexiones de un lingüista metido a profesor." *Filología y Lingüística 30*(2): 131–154. https://doi.org/10.15517/rfl.v30i2.4442

Schmidt-Rinehart, Barbara C. and Jean W. LeLoup. 2017. "Register and forms of address in Costa Rica: Sociolinguistic realities and pedagogical implications." *Foreign Language Annals 50*(1): 159–176. https://doi.org/10.1111/flan.12247

Schmidt, Lauren B. 2009. "The effect of dialect familiarity via a study abroad experience on L2 comprehension of Spanish." In: *Selected Proceedings of the 11th Hispanic Linguistics Symposium*, edited by Joseph Collentine, Maryellen García, Barbara Lafford, and Francisco Marcos Marín, 143–154. Somerville, MA: Cascadilla Proceedings Project.

Schmidt, Lauren B. 2018. "L2 development of perceptual categorization of dialectal sounds: A study in Spanish." *Studies in Second Language Acquisition 40*(4): 857–882. https://doi.org/10.1017/S0272263118000116

Schoonmaker-Gates, Elena. 2014. "Dialect variability in L2 word-recognition: Evidence for episodic encoding?" Poster presented at Hispanic Linguistics Symposium, West Lafayette, IN.

Schoonmaker-Gates, Elena. 2017. "Regional variation in the language classroom and beyond: Mapping learners' developing dialectal competence." *Foreign Language Annals 50*(1): 177–194. https://doi.org/10.1111/flan.12243

Schoonmaker-Gates, Elena. 2018a. "Dialect comprehension and identification in L2 Spanish: Familiarity and context of exposure." *Studies in Hispanic and Lusophone Linguistics 11*(1): 193–214. https://doi.org/10.1515/shll-2018-0007

Schoonmaker-Gates, Elena. 2018b. "Dialect in the mental lexicon: Spanish L2 word discrimination and three regional varieties." Paper presented at the Current Approaches to Spanish and Portuguese Second Language Phonology conference, Bloomington, IN.

Segalowitz, Norman and Barbara F. Freed. 2004. "Context, contact, and cognition in oral fluency acquisition: Learning Spanish in at home and study abroad contexts." *Studies in*

Second Language Acquisition *26*(2): 173–199. https://doi.org/10.1017/S0272263104262027

Stephan, Christoph. 1997. "The unknown Englishes? Testing German students' ability to identify varieties of English." In: *Englishes around the World 1,* edited by Edgar W. Schneider, 93–108. Amsterdam: John Benjamins. https://doi.org/10.1075/veaw.g18.12ste

Sullivan, K. P. H. and Y. N. Karst. 1996. "Perception of English accent by native British English speakers and Swedish learners of English." In: *Proceedings of the 6th Australian International Conference on Speech Science and Technology*, edited by Paul McCormack and Alison Russell, 509–514. Adelaide, Australia: Australian Speech Science and Technology Association.

Tarone, Elaine. 2007. "Sociolinguistic approaches to second language acquisition research—1997–2007." *Modern Language Journal 91*(S1): 837–848. https://doi.org/10.1111/j.1540-4781.2007.00672.x

Toohey, Kelleen. 2000. *Learning English at School: Identity, Social Relations, and Classroom Practice*. Clevedon: Multilingual Matters.

Trentman, Emma. 2013. "Imagined communities and language learning during study abroad: Arabic learners in Egypt." *Foreign Language Annals* *46*(4): 545–564. https://doi.org/10.1111/flan.12054

Trimble, John C. 2014. "The intelligibility of Spanish dialects from the L2 learner's perspective: The importance of phonological variation and dialect familiarity." *International Journal of the Linguistic Association of the Southwest 33*(2): 31–58.

Van Leussen, Jan-Willem and Paola Escudero. 2015. "Learning to perceive and recognize a second language: the L2LP model revised." *Frontiers in Psychology 6*: 1000. https://doi.org/10.3389/fpsyg.2015.01000

Wieczorek, Joseph A. 1991. "Spanish dialects and the foreign language textbook: A sound perspective." *Hispania 74*(1): 175–181.

Wieczorek, Joseph A. 1992. "Classroom implications of pronoun (mis)use in Spanish." *Modern Language Journal 76*(1): 34–40. https://doi.org/10.1111/j.1540-4781.1992.tb02575.x

Wolfram, Walt, Phillip Carter, and Beckie Moriello. 2004. "Emerging Hispanic English: New dialect formation in the American South." *Journal of Sociolinguistics 8*(3): 339–358. https://doi.org/10.1111/j.1467-9841.2004.00264.x