

**STYLISTIC CONSIDERATIONS FOR THE REALIZATION OF THE /S/ PHONEME IN  
SPANISH: AN INVESTIGATION OF THE INFLUENCE OF AUDIENCE**

by

**James Bishop Fitzpatrick**

A.B., Duke University, 2003

M.A., North Carolina State University, 2005

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This thesis was presented

by

James Bishop Fitzpatrick

It was defended on

April 10, 2014

and approved by

Dr. Shelome Gooden, Associate Professor, Department of Linguistics

Dr. Marta Ortega-Llebaria, Assistant Professor, Department of Linguistics

Thesis Director: Dr. Scott F. Kiesling, Associate Professor, Department of Linguistics

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The weakening of the /s/ phoneme in Spanish is one of the most studied phenomena in Hispanic linguistics in recent decades, with a considerable body of literature describing variation in /s/ across the dialects of modern Spanish. The present study expands that body of literature with a case study of Representative Luis Gutiérrez (D-IL), a bilingual, U.S.-born Congressman of Puerto Rican heritage. Given his visibility as a public figure on Spanish-language media in different geographical areas, Gutiérrez engages in a significant degree of intraspeaker variation with respect to weakening when addressing different audiences.

This study examines Gutiérrez's /s/-weakening according to three factors: intended audience, rate of speech, and following segment. While weakening is well-attested in the literature, many existing accounts rely on language-internal factors drawn from the fields of phonetics, phonology, and morphology. The addition of the language-external factor of intended audience into the model invites a reframing of the analysis to include the sociolinguistic concepts of style and audience design, reflecting the shifting paradigm of "third wave" sociolinguistics and its focus on intraspeaker variation.

The data for this study are drawn from two Spanish-language interviews with Gutiérrez: one with U.S. television and one with Puerto Rican radio. These interviews were divided into intonation units and tokens of syllable- and word-final /s/ were extracted and coded for three

independent variables: intended audience, rate of speech, and following segment. /s/-weakening was coded as a binary dependent variable.

Subsequently, a logistic regression was performed on the data using the aforementioned variables. An omnibus F test for the model as a whole revealed a significant prediction of weakening by the combination of the predictors as entered,  $\chi^2(5, N=325) = 65.142, p < .001$ , Nagelkerke  $R^2=.243$ . Further, the logistic regression revealed that while intended audience and rate of speech significantly contributed to weakening, following segment did not contribute significantly in the model as entered. These results highlight the influence of style as a potential complicating factor in the ability of other factors to account for weakening and raises questions for further inquiry about the balance of language-internal and language-external factors in accounting for weakening.

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## PREFACE

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This work is dedicated to my wife, Lauren, who patiently endured the sound of thousands and thousands of repetitions of /s/ tokens coming from my office as I was coding data with seemingly boundless patience. Thanks for that. You're the best.

## 1.0 INTRODUCTION

The present study is a sociolinguistic investigation of the influence of a selection of language-internal and language-external factors on the realization of the /s/ phoneme in the Spanish-language speech of Representative Luis V. Gutiérrez (D-IL), a U.S.-born, bilingual Congressman of Puerto Rican descent. Like many Spanish speakers, particularly those hailing from the Caribbean region, Gutiérrez engages in /s/-weakening, a phonetic process in which speakers either realize the /s/ phoneme without the typical oral constriction or delete it entirely, a phenomenon known colloquially as *comerse la ese*, literally ‘to eat up the /s/,’ a term derived from the folk perception that the /s/ is “swallowed” by speakers (Mason 1994).

Scholars in the field of Hispanic linguistics have studied weakening extensively, and the body of literature on the topic is considerable. However, much of the research conducted on weakening up until this point has come from the fields of phonetics, phonology, and morphology. Sociolinguistics is not extensively represented in scholarly work on /s/-weakening, and where it does appear, it is largely used as an explanatory mechanism at the *interspeaker* level – that is, some studies may make claims about the rate of weakening in particular dialects or geographic regions, but comparatively little significant work has been done on weakening as a variable that might be used at the *intraspeaker* level as a tool for aligning with one’s interlocutors. Because the weakening of the /s/ phoneme is associated most often with casual

speech or lower sociolects in the regions where it is typically found (Hualde 2005), its presence in a typically formal context such as a news interview should not be dismissed out of hand.

To better explore /s/ as a variable that may be used differently by the same speaker in different situations, it is necessary to draw on different sociolinguistic methodology than has been emphasized in the research thus far. These more recent methodological trends, which fall under what Eckert (2012) describes as the “third wave” of the discipline, have begun to emphasize speakers’ engagement in sociolinguistic variation across contexts or with different audiences, as variation based on speech style has become a focal point of sociolinguistic inquiry. The application of stylistic analysis to a public figure like Rep. Gutiérrez is particularly appropriate given his high visibility as a frequent guest on radio and television news programs, his reputation as an advocate for causes relevant to native Puerto Ricans living on the island, and his work fighting for the rights of underrepresented Latinos of many national origins living on the U.S. mainland. Thus, at any given moment, a speaker like Rep. Gutiérrez might find himself addressing a small, almost exclusively Puerto Rican audience regarding an issue affecting the island, such as the effects of the U.S. Navy’s presence on its base in Vieques, Puerto Rico. At other times, he will find himself addressing an issue and an audience that is much broader, such as the strong anti-immigrant legislation passed in the last several years in states such as Alabama and Arizona, which have a much farther-reaching impact on the nation’s Latino community as a whole. Divergent speech contexts like these may prompt speakers to deploy different styles in an effort to achieve various interactional goals, such as displaying a strong local affiliation and sensitivity to Puerto Rican concerns in the case of the first example above, or being perceived as a trustworthy, credible advocate for Latino rights in the second example. These interactional goals often manifest linguistically as speakers produce situationally relevant variants of

particular sounds, such as weakened /s/, which are often associated with particular social groups, and in turn, index the value systems and lifestyles of those groups.

The present study expands the literature available both on /s/-weakening and style shifting by detailing Rep. Gutiérrez's linguistic behavior with respect to weakening in two contexts – a radio interview for a Puerto Rican audience and a television interview for a mainland U.S. audience – and comparing the effects of the language-external factor of intended audience with the effects of already-attested language-internal factors in determining the influence of both types of factors on /s/-weakening. Further, the present work will show that language-external factors such as audience composition will, in certain contexts, have a suppressive effect on the predictive ability of language-internal factors such as identity of following segment to account for weakening.

Before detailing the relationship between language-internal and language-external factors on Rep. Gutiérrez's speech, though, it is first necessary to describe the background of Rep. Gutiérrez himself as well as the larger societal discourses framing the specific speech samples to be analyzed later in this study. These two goals will constitute the remainder of this introductory chapter.

## 1.1 REPRESENTATIVE LUIS V. GUTIÉRREZ

As previously noted, the speaker to be analyzed herein is U.S. Representative Luis Vicente Gutiérrez, an Illinois Democrat who has served in Congress since 1993. Gutiérrez was born to Puerto Rican parents in Chicago, Illinois on December 10, 1953, and lived much of his early life in the largely Puerto Rican enclave neighborhood of Lincoln Park in the city, which he describes as follows:

But I knew that I was Puerto Rican because I had grown up in the city of Chicago where every day the people insist on reminding you in a not-positive way that you're Puerto Rican. Ah, I lived in a Puerto Rican neighborhood. All there was to do was, on the weekends [my father] went to Puerto Rican weddings, Puerto Rican quinceañeras, Mass, on Sundays, Puerto Rican...It was a cooperative Puerto Rican institution. (Radio Isla 2011; my translation)

When Gutiérrez was 15, his parents relocated the family to their native Puerto Rico, where he remained until graduating high school. He then returned to the mainland to begin his undergraduate studies at Northeastern Illinois University, from which he graduated in 1977 with a degree in English. Between his college graduation and the start of his tenure as a Congressman, Gutiérrez worked in both the U.S. and Puerto Rico as a taxi driver, teacher, social worker, and community activist (Full Biography n.d.). Because of the high level of exposure to Puerto Rican culture, contact with speakers of Puerto Rican Spanish throughout his youth and early adulthood, and the self-identification with the Puerto Rican community Gutiérrez claims in the quotation above, it is reasonable to consider that Gutiérrez himself will have some features of the Puerto Rican dialect, including but not limited to /s/-weakening, and indeed, this will prove to be borne out in an examination of the data in this study. However, the strength of Gutiérrez's self-identification as Puerto Rican sets up a sociolinguistic situation in which divergence from

expected Puerto Rican language norms becomes salient, and it is precisely this intraspeaker variation that merits the type of closer examination conducted in this study.

Gutiérrez's political career has afforded him many opportunities to interact with Spanish speakers of various demographic backgrounds on a national stage; he made history in 1992 as the first Latino to be elected to Congress from the Midwest region of the United States (Full Biography n.d.). Since being elected, Gutiérrez has garnered a reputation as a champion of immigrant and minority rights. He has served as the Chair of the Immigration Task Force both for the Congressional Hispanic Caucus and the Democratic Party at the national level, and has been involved in a number of demonstrations, protests, and instances of civil disobedience, for which he has been arrested three times – twice in 2001 for protesting the United States military's occupation of Vieques, Puerto Rico, and once at the White House in 2011 for protesting President Barack Obama's policies on immigration (Sweet 2011). Gutiérrez has been an active proponent of the Development, Relief, and Education for Alien Minors (DREAM) Act, and has worked with both Democratic and Republican legislators to develop bipartisan immigration reform laws. Because of his passionate oratorical style and strong advocacy, he has been given the nickname *el gallito* – 'the little fighting rooster.' Immigration rights activists have also compared Gutiérrez to the Rev. Dr. Martin Luther King, Jr. for his progressive stances, advocacy for underrepresented and underserved populations, and use of civil disobedience.

Gutiérrez's status as an advocate for the rights of immigrants and other underrepresented populations is integral to an understanding of his sociolinguistic choices, and such an understanding is best informed by a description of the demographic makeup of the Latino population in the United States as well as some of the societal discourses surrounding the

experiences of U.S. Latinos; to that end, the following section discusses these themes with the purpose of contextualizing further linguistic analysis.

## **1.2 THE U.S. LATINO<sup>1</sup> POPULATION: LANGUAGE, CULTURE, AND CONTEXT**

This section will describe the sociocultural context for the U.S. Latino population in the early 21<sup>st</sup> century. It will briefly discuss significant factors in the experience of the country's Latino communities, such as population trends, demographic factors, and language use. In addition to establishing some baseline demographic data for the Latino population in the U.S., this section will also discuss topical societal discourses relating to the presence of the Latino immigrant in contemporary U.S. society and the role of Latino rights activists such as Rep. Gutiérrez in combating these discourses. Situating Gutiérrez's speech in a socially meaningful way is of crucial importance if we are to analyze his language behavior as a tool for connecting with audience of differing makeups. In order to more accurately interpret Gutiérrez's variation with respect to existing sociolinguistic expectations, it is first important to sketch out the landscape of these expectations from both a strictly demographic and a cultural perspective.

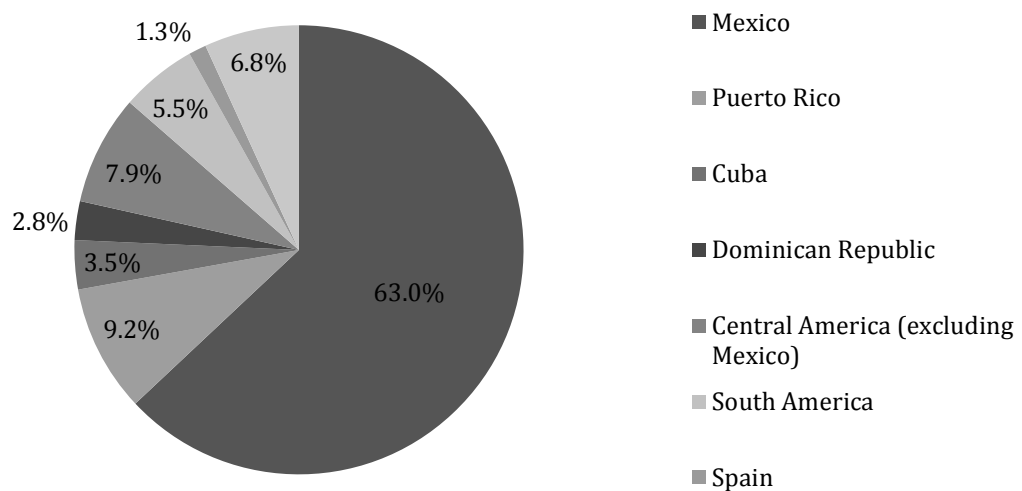
In the 2010 U.S. Census, which constitutes the most complete official decennial Census figures available at the time of this writing, 50,477,594 residents of the United States identify as being of Hispanic or Latino heritage. This figure constitutes approximately 16% of the U.S.

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<sup>1</sup> Following Torres (1997: xi), I use the terms *Hispanic* and *Latino* interchangeably, without wishing to take up a position on the correct nomenclature for any communities of this heritage in the U.S. As Torres states, "terms such as Latino or Hispanic can serve as situational ethnic identifiers when the need for panethnic unity arises."



population as a whole (Ennis, Ríos-Vargas, & Albert 2011). More than 75% of the Hispanic population in the U.S. is composed of citizens, either by birth or naturalization, while the remaining quarter of Hispanics living in the country are not citizens (U.S. Census Bureau 2012). Of those who identified themselves as Hispanic or Latino, nearly two-thirds are of Mexican origin, with a variety of other national backgrounds composing the rest of the country’s Hispanic population. A more detailed breakdown of the national origins of the U.S. Hispanic population can be found in Figure 1 below, adapted from Ennis, Ríos-Vargas, & Albert (2011):



**Figure 1. Breakdown of United States Latino population by national origin.**

The Census Bureau’s Overview of Race and Hispanic Origin (Humes, Jones, & Ramírez 2011) tracks the recent explosive growth in the Hispanic population and the accompanying shift in demographic makeup of the U.S. population. Between the last two decennial Censuses, conducted in 2000 and 2010, the Hispanic population grew by 43%, compared to an increase of

9.7% in the population of the country as a whole. The 43% increase corresponded to a numerical growth of over 15 million, a figure which constitutes more than half of the total U.S. population growth in the period between Censuses. During that same ten-year span, the aggregate Hispanic population, i.e the total population of Hispanics of any origin, displaced African Americans as the largest minority population in the country. This seismic shift in the demographic makeup of the U.S. has in turn introduced a host of issues ranging in nature from the linguistic to the social and economic.

The 2011 American Community Survey, conducted by the U.S. Census Bureau, reports that nearly 38 million U.S. residents, or just over one in eight residents of the country, speak Spanish at home. Of those Spanish speakers, more than 56% self-report speaking English “very well,” while the remainder self-report speaking English “well” or less than “well” (Ryan 2013). The implications of these linguistic figures for the present study establish the presence of a large Spanish-speaking market of consumers of goods, services, and mass media. The linguistic analysis to be conducted as part of this work emphasizes the role of Spanish-language media in the United States and Puerto Rico and the linguistic and social characteristics of the populations engaging with these media.

While the breakdown of the Latino population by national origin does not specifically address the issue of mass media audience composition, it does offer some insight into the composition of the U.S. Latino population as a whole, and as such might serve as a starting point for a discussion of the language behavior and preferences of Spanish speakers in the United States. To best inform the community, it is important for media to deliver a product that is readily comprehensible and can reach the largest possible audience. Although studies such as Preston’s (1999) work on the perceptual dialectology of English do not address Spanish dialects

specifically, they reveal important aspects of language users' preferences for linguistic input, namely that they prefer what they perceive to be highly comprehensible, "neutral" dialects.

Given the varied national backgrounds of the Spanish-speaking population in the United States, it is advantageous to pursue a standard of some sort for the sake of ease of communication, and it is unsurprising that Spanish-language media companies in the United States would pursue a policy of dialect neutrality. Ahrens (2004) explores how speakers' preferences influence Spanish language in the public sphere in a *New York Times* article comparing the varieties of Spanish used by the two major U.S. Spanish-language television networks, Univisión and Telemundo. In his article, Ahrens cites Telemundo's decision to coach on-air talent to use the features of the more preferred, allegedly more dialect-neutral Mexican variety of Spanish as a primary factor that allowed Telemundo to cut into Univisión's substantial lead in ratings. Citing Telemundo executives in his article, Ahrens refers to the Mexican dialect as the "broadest-appeal, easiest to understand Spanish" and "the Nebraskan of Spanish," evoking the parallel ideological preferences of English-speaking respondents in Preston's study for a neutral, easy to understand variety of language in the media. The suppression of variation in media Spanish has been analyzed by linguists and anthropologists, such as Mendoza-Denton & Gordon (2011) and Dávila (2001), who corroborate the accounts of other writers such as Ahrens. In particular, Dávila (2001) notes:

the [media]'s promotion of so-called generic Spanish has been accompanied by the privileging of some accents over others. Mexican upper-class Spanish, supposedly devoid of regional accents, rather than Hispanic Caribbean or South American Spanish, has thus become tantamount to "generic Spanish." (Dávila 2001: 167)

These tendencies toward a "generic" Spanish are not insignificant; the language preferences of intended audiences and media executives can have very real effects on a speaker's

choice of speech style, particularly if the speaker is a native user of a disfavored dialect such as Puerto Rican Spanish. If the U.S. Latino population is nearly two-thirds Mexican, and Mexican Spanish features are actively being promoted as desirable language behavior for on-air talent on Spanish-language television, this privileging of Mexican Spanish subsequently raises questions about the sociolinguistic utility of non-Mexican varieties as well as the need to for speakers to code switch or tailor their speech to their audiences. These themes will be discussed in further detail in Section 2.1 on style and audience design, as well as in Chapters 4 and 5.

### **1.3 ‘DONDE MÁS DISCRIMINAN’: DISCOURSES OF IMMIGRATION IN THE U.S.**

In addition to the questions of language ideologies and media dialect standardization raised in the previous section, the rapid growth of the Hispanic population in the U.S. has given rise to a number of larger societal discourses around sociocultural, economic, and political issues relating to U.S. Hispanics, particularly immigrants. A comprehensive discussion of discourses relating to this theme is beyond the scope of the current work and has indeed been conducted extensively by other authors (e.g. Santa Ana 2002). However, a brief examination of some of the relevant issues and their treatment in the media is useful in that it furthers the goal of creating a comprehensive contextual underpinning for the language analysis to be undertaken in this work. Because of Rep. Gutiérrez’s extensive work in advocating for comprehensive immigration reform legislation, it is most relevant to the present study to briefly address how the topic of immigration is taken up in the public discourse.

In his work on the representation of immigrants in public discourse, van Dijk (1992) notes that certain assumptions about immigrants often occur in the public discourse, regardless of the country into which the immigration is taking place. These assumptions include the following:

- They do not want to adapt to our ways.
- They don't want to speak our language.
- They only come here to live off our pocket.
- They think our country is a social paradise.
- They take away our jobs.
- They take away our houses.
- They are engaged in criminal activities (typically: drugs, mugging, etc.)
- They don't work hard enough to make it here. (van Dijk 1992: 39)

Although the question of how to manage the cultural and economic impact of immigration has been ubiquitous throughout U.S. history, there has been a surge of public discussion with regards to the influence of the Hispanic population in recent years, and much of the anti-immigration public discourse emphasizes the assumptions about immigrants listed in van Dijk (1992). The issue is a widely polarizing one, with opinions on all sides of the issue fighting for airtime in discursive space. Due to its rapid growth over the past two decades, the country's Hispanic population often finds itself in the spotlight where issues of immigration are concerned; in particular, two pieces of legislation have been linked to the racist treatment of Hispanic immigrants in the United States. The first of these, Arizona Senate Bill 1070 (Arizona State Senate 2010; hereafter SB 1070), has the full title "Support Our Law Enforcement and Safe Neighborhoods Act." A similar bill in Alabama, House Bill 56 (Alabama State House of Representatives 2011; hereafter HB 56) is entitled the "Beason-Hammon Alabama Taxpayer and Citizen Protection Act."

Both of these bills are highly controversial and have been the topic of much discussion in the public sphere since being signed into law in 2010 and 2011, respectively. The introduction of SB 1070 and HB 56 has highlighted issues of language and public discourse, with the titles of both bills professing to support worthy causes such as law enforcement, safe neighborhoods, and the protection of the American taxpayer and citizen. However, critics of the bills argue that the provisions made within them unfairly target immigrants living in the U.S., particularly Hispanics, and that the content of the laws unfairly excludes immigrants from society. Su (2010: 77) argues that the law is “inherently restrictive, not empowering, and it is through these restrictions on counties, cities, and towns that S.B. 1070 most directly encourages abusive profiling and harassment.” Through their titles alone, the bills set up a situation in which American neighborhoods need to be made safer from the impinging tide of immigration, and the American taxpayer must be protected from the economically parasitic immigrant population. As Su argues above, law enforcement officials attempting to enforce these laws may resort to racial profiling and harassment.

Aside from their titles, many of the provisions in the bills seem to feed off of the unfounded stereotypes from the van Dijk excerpt above, such as the following example from Arizona SB 1070:

IT IS UNLAWFUL FOR A PERSON WHO IS UNLAWFULLY PRESENT IN THE UNITED STATES AND WHO IS AN UNAUTHORIZED ALIEN TO KNOWINGLY APPLY FOR WORK, SOLICIT WORK IN A PUBLIC PLACE OR PERFORM WORK AS AN EMPLOYEE OR INDEPENDENT CONTRACTOR IN THIS STATE. (Arizona State Senate 2010: 5)

Opponents of immigration often express the fear that, if admitted to the country, immigrants will unfairly take the jobs that are meant for citizens, and this attitude often finds its way into the public discourse via laws such as SB 1070 and the subsequent outpouring of

opinions in the mass media. The bill makes it illegal for an undocumented immigrant who is in the country illegally to knowingly apply for work of any kind, a regulation which is designed to economically stymie immigrants, make it impossible for them to earn a living, and encourage them to self-deport or risk violating the law to support themselves.

Alabama HB 56, in a similar vein as the Arizona law, demands “verification of lawful presence in the United States” to receive any of a long list of public benefits, including all of the following: public K-12 education, emergency health care services, emergency disaster relief, immunizations, nutrition programs such as the Women, Infants, and Children (WIC) program, meals at facilities such as soup kitchens, and crisis counseling and intervention for a variety of urgent situations (Alabama State House of Representatives 2011: 18-19).

The impacts of bills such as HB 56 and SB 1070 are so profound in their respective states that advocates such as Rep. Gutiérrez and others, both inside and outside of Congress, have made it a point to mount intensive challenges to the bills, seeking instead to arrive at a bipartisan solution of comprehensive immigration reform. Advocates for immigrants’ rights argue against the passage of bills that appeal to the often racist and classist assumptions described by van Dijk (1992), and the bills have been criticized by advocates for immigrants’ rights, including Rep. Gutiérrez, as promoting harsh treatment and racial profiling of Hispanics. With the potential impacts on the civil rights of U.S.-born Hispanic citizens, documented immigrants, and undocumented immigrants at stake, the introduction of SB 1070 and HB 56 has cemented the place of immigration issues in the public discourse, which subsequently has given rise to extensive discussion of the two laws in both English- and Spanish-speaking news media. The prevalence of these issues in the news media and the potential for the laws to affect Latinos regardless of national origin hearkens back to the issues discussed in Ahrens (2004) and the need

for Spanish-language media that will reach a large variety of Spanish speakers. Rep. Gutiérrez has been extremely vocal in his criticism of these laws, going so far as to refer to Alabama as “donde más discriminan,” literally ‘where they discriminate the most,’ in one of the interviews analyzed for this study (Univisión 2011). As a representative not only of his Congressional district in Chicago, but a well-known and respected public figure for the nation’s Latino community at large, Gutiérrez maintains a high degree of engagement with the discourses surrounding immigration, the laws made against it, and the people these laws affect.

The population affected by laws such as HB 56 and SB 1070 is heterogeneous demographically and linguistically, but often shares a common mainstream media viewing experience. In stylistic terms, then, the potential for current events to affect Latinos of diverse national origins has created a need for language that is able to function across the boundaries of dialect or nationality. Style shifting and code switching are the linguistic means by which the goal of reaching many viewers and listeners is accomplished. The present work, while focusing on one speaker, seeks in part to demonstrate the ways in which supposedly more generic Spanish functions in the public sphere, how speakers’ sociolinguistic choices vary depending on the composition of their audiences, and how style shifting affects sociolinguistic variables for speakers whose native dialects fall outside the preferred dialects of the mainstream. The next chapter describes in detail existing work on style shifting, relevant sociolinguistic patterns found in /s/-weakening, and relevant information from acoustic phonetics to classify tokens of /s/ for effective analysis.



## 2.0 BACKGROUND AND THEORY

This section will introduce the relevant background literature for the present study. Section 2.1 provides a brief overview of the three-wave model of sociolinguistic research before introducing literature on style shifting in order to contextualize some of the sociolinguistic decisions made by Rep. Gutiérrez. Section 2.2.1 summarizes research on /s/ weakening, first by discussing existing accounts of weakening proposed by scholars in Hispanic linguistics, mainly in the realm of language-internal factors. Next, Section 2.2.2 provides a descriptive account of /s/ weakening in Mexican and Caribbean Spanish. Together, a description of weakening in these two regions accounts for the Spanish of approximately three-fourths of the U.S. Hispanic population by national origin. Finally, Section 2.3 utilizes literature from acoustic phonetics to develop objective criteria to aid in the classification of tokens of /s/ as weakened or not, as well as arguing for a binary definition of weakening that contrasts with the predominant ternary classification in the literature. Crucially, this section anticipates and lays the groundwork for the statistical analysis to be carried out in Chapter 4, which will move beyond description into inferential statistics to lend quantitative credibility to the analysis of language as a stylistic tool that speakers may use to achieve certain interactional goals. Further, later analysis will explore issues of balancing the influence of language-internal and language-external factors in accounting for variation in /s/ production.

## 2.1 VARIATION, STYLE, AND ACCOMMODATION

If the contextual variation in Rep. Gutiérrez's speech is to be accounted for in a manner that emphasizes language-external factors rather than language-internal ones, it is necessary to briefly examine the ways in which style and audience accommodation manifest themselves in sociolinguistic variation. Such a discussion is most productively introduced by a brief look at the history of sociolinguistics as a discipline, which is provided in Eckert (2012). In her description of the evolution of sociolinguistics, Eckert identifies three major waves of variation study. The first wave, characterized by studies such as those conducted by William Labov (1963, 1972, 2006), focused largely on identifying macro-level trends in sociolinguistic behavior and connecting those trends to demographic categories such as regional affiliation, age, sex, and ethnicity. In the second wave, large-scale variation analysis gave way to finer-grained methods and ethnography became a primary tool as researchers focused on smaller local communities, but the principle endeavor of connecting language and social categories remained the same. Recently, sociolinguistic studies in the third wave have focused on the idea of style as a linguistic resource, as Eckert (2012: 93-94) describes:

The principal move in the third wave then was from a view of variation as a reflection of social identities and categories to the linguistic practice in which speakers place themselves in the social landscape through stylistic practice.

More generally, first and second wave sociolinguistic studies deal primarily with interspeaker variation, whereas the style-focused analyses of the third wave concentrate on the flexible nature of variables and their functions as tools for expression on the intraspeaker level. With this third wave principle as a foundation, then, the analysis of a small number of speakers across contexts is a fertile area for exploration, as it allows researchers to investigate how

speakers align themselves with one another on a smaller scale. Thus, Weinreich, Labov, and Herzog's (1968) core concept of "orderly heterogeneity," long considered a cornerstone of sociolinguistics, is not invalidated by the third wave; instead, analysts are invited to reconsider the specific origin of the order in the heterogeneity, and how descriptions of the orderliness of linguistic variation must be continuously refined as the focus of analysis becomes ever narrower. The quotation from Eckert cited above reflects this theoretical orientation; speakers have the agency to "place themselves in the social landscape," aligning themselves with their audiences in specific ways to achieve their interactional goals.

This methodological shift also calls into question other assumptions of sociolinguistic analysis, such as the emphasis placed on analyzing natural speech and the effects of observation on the use of language by speakers and its subsequent analysis by researchers. Early sociolinguistic research (e.g. Labov 1972) makes heavy reference to the observer's paradox, which highlights one of the most notable tensions in sociolinguistic research, between the need to capture authentic or natural language for analysis and the idea that observation causes speakers to modulate their linguistic behavior, making it difficult to observe natural speech. The concept of attention paid to speech is also closely related to the observer's paradox, and is often claimed to be a primary determining factor in speakers' choices as part of sociolinguistic variation; that is, when speakers are less actively monitoring their own speech, they are less likely to produce standard features. A well-known example of an application of this theory is Labov's (1972) "danger of death" narratives, in which he invited participants to recall times when they truly believed they were in danger of dying. Labov posited that speakers who were involved in the process of relating an interesting narrative would be less inclined to self-monitor and therefore more inclined to produce nonstandard features. Labov notes that one of his

subjects, Eddie, typically adheres to a formal style, producing little in the way of vernacular features, but when given the opportunity to talk about a situation where he faced the danger of death, “a sudden and dramatic shift in his style took place” over the course of “a few short sentences” (Labov 1972: 93). The implication of Labov’s study and his work on the observer’s paradox in general (e.g. 1972, 2006) is that observation, whether by oneself or an outsider, discourages vernacularity and inhibits stylistic variation.

However, other research has shown that the production of nonstandard features can occur not only in the presence of self-monitoring, but also at least in part because of that self-monitoring, as a function of the stances speakers choose to take up with respect to their audiences and the topic of discussion at hand. One such example of this phenomenon is Schilling-Estes’ (1998) discussion of the performance register used by the residents of Ocracoke Island, North Carolina. Schilling-Estes observes in her study that her speakers tend to lean more toward emphasizing the unique speech features of the Ocracoke dialect, such as the backing and raising of the nucleus of the /aj/ diphthong, when engaging in high levels of self-monitoring or when performing the dialect for outsiders. In another example of the connection between self-monitoring and nonstandard speech, Cutler (1999) discusses the phenomenon of dialect crossing in European American teenagers who use linguistic constructs typically considered to be African American English (AAE) or Hip Hop Nation Language (HHNL; see Spady, Lee, & Alim 1999; Alim 2004). “Mike,” a well-to-do white teenager who is one of the primary subjects of Cutler’s analysis, actively “corrects” his grammar to reflect AAE and HHNL norms when speaking to his friends, as in Cutler’s example: “I gotta ask, I mean aks [æks] my mom” (Cutler 1999: 301).

At the other end of the formality continuum, Bucholtz’s (2001) work on the superstandard English of self-identified high school nerds shows that attention to speech can

produce not only the standard English that earlier researchers such as Labov argued for, but an even more extreme extension of formality. Bucholtz's speakers demonstrate superstandard features such as non-reduction of word-final consonant clusters, pronouncing *just* as [dʒʌst], and articulation of word-final orthographic *-g* in tokens such as *Hong Kong*, which manifests as [hɑŋ kɑŋ] as opposed to the more common [hɑŋ kɑŋ].

The importance of work such as that of Schilling-Estes, Bucholtz, and Cutler to the third wave of sociolinguistics is considerable, as it de-emphasizes the connection between standard language and self-monitoring. Recent style shifting work does not bolster the classical sociolinguistic viewpoint that standard language is a natural consequence of increased attention paid to speech. Instead, the evidence in the literature suggests a different, but not incompatible, conclusion – specifically, speakers use language to interface effectively with interlocutors, and style shifting is a way to connect language to certain stances that speakers wish to adopt in different contexts and with different interlocutors. The effect of observation on speech may be to magnify the language behavior used to index the stance the speaker seeks to adopt. In the case of Mike in Cutler's study, the speaker self-corrects to nonstandard forms typically identified as AAE or HHNL in an effort to confirm his identification with African American or hip hop culture. In the case of Schilling-Estes' participant Rex O'Neal, the production of very strong levels of Ocracoke features helps to demonstrate an authentic connection to the island and the culture of the community there. In the case of Bucholtz's nerds, their desire to reject what they perceive as the typical teenage culture leads them to self-monitor in the same way Mike and Rex do, but the result in their case is the opposite; they eschew vernacularity and adopt superstandard language norms.

The idea of style shifting toward vernacularity in spite of increased attention paid to speech is further explored by Guy and Cutler (2011), whose quantitative work on coronal stop deletion among speakers of various ethnic backgrounds in the Hip Hop community provides a frame of reference for further quantitative work on style shifting, including the present study. In their work, Guy and Cutler demonstrate the existence of a predictable exponential relationship between rates of coronal stop deletion in different morphological contexts. However, with white hip hoppers, for whom Hip Hop Language is often not a native speech style, the use of Hip Hop Language around other participants in the culture becomes an extended exercise in style shifting. Ultimately, the authors conclude that white hip hoppers with low baseline rates of coronal stop deletion must consciously emulate the high rates of deletion found in the speech of African American members of the hip hop community. Knowing this, it is reasonable to argue that a speaker who has style shifted outside of his or her native dialect may not produce certain features of the target dialect – such as coronal stop deletion or /s/ weakening – at the same rate as natives. As Guy and Cutler show, and as the speech of Rep. Gutiérrez will later prove to bear out, quantifying style shifting is often not a straightforward matter of measuring the frequency of occurrence of particular variants. Rather, as argued by Guy and Cutler, style shifting consists in part of managing the *relationship* between rates of occurrence of certain variants across contexts that may allow style shifted speech to better approximate the native speech of users of a given variety.

This approximation is a common theme in sociolinguistic work in the field of audience design, which argues that speakers tailor their speech to what they perceive to be the linguistic expectations of listeners. In his seminal work on this topic, Bell (1984: 158) notes that “speakers cannot match the speech differences of all their interlocutors – but they can approach them.”

Bell then proceeds to delineate a framework based heavily on the speakers' deference to their audience, and for the purposes of the present study, it is useful to consider the behavior of Rep. Gutiérrez in this regard. As a public figure that is prominently featured in the mass media, Gutiérrez must be conscious of the composition of his audience when making sociolinguistic decisions. Although his native Puerto Rican dialect favors weakening in most cases, it is not unusual for the sociolinguistic pressures of the situation to temporarily suppress that tendency based on the identity of the audience. When speaking to a demographically broad audience on a television news program in the mainland of the U.S., particularly about issues relevant to Hispanic immigrants of varying nationalities, it is important for Gutiérrez to modulate his speech to conform to the expectations of that audience. Although he still exhibits some degree of weakening in speech directed to a U.S. audience, Gutiérrez shows, in accordance with the claims of Bell (1984) and Guy & Cutler (2011), that it is in fact possible to approximate some of the characteristics of the speech of one's interlocutors when the situation demands it. The idea of a "good enough" rendition of a speech style produced in deference to one's interlocutors is very useful for performing short-term social functions. In the case of his appearances in the public media, Gutiérrez may adopt a less vernacular speech style to portray himself of a trustworthy public figure who is easy to understand and identify with, and who has the interests of the whole Latino community at heart. On the other hand, when communicating with a media audience likely to share his native Puerto Rican dialect, Gutiérrez's sociolinguistic decisions are more likely to reflect a desire to align closely with the local community and local issues. As a result, his weakening behavior will increase to more closely match that of speakers for whom issues of local Puerto Rican culture are relevant.

At its core, sociolinguistics is the study of socially-informed choices speakers make regarding the ways in which they wish to portray themselves outwardly in a society of socially-aware interlocutors who are making the same types of decisions. There are very real social consequences based on the ways in which people speak, and an awareness of that fact is part of what drives the decisions language users make every day. A case study of style shifting such as the present work must take into account several factors: the speaker's background, the broader linguistic context in which he finds himself, and the potential motivations for style shifting or other sociolinguistic decisions he must make as a self-aware participant in various speech communities. Having established the potential for stylistic variation and some of the workings of the process of shifting, it is now necessary to describe the production of /s/ by speakers of the different dialects whom Rep. Gutiérrez addresses in the data analyzed later.

## **2.2 RESEARCH ON /S/-WEAKENING**

This section examines select literature on /s/ weakening in Spanish in order to accomplish three primary goals. Section 2.2.1 addresses the first of these goals by briefly summarizing existing accounts of weakening in the literature, discussing the various language-internal and language-external factors that researchers have used to account for variation in production of the /s/ phoneme, and identifying a theoretical gap in the literature to be preliminarily addressed by the analysis conducted later in this study. Next, Section 2.2.2 describes the weakening behavior of speakers of Mexican and Caribbean Spanish, including Puerto Rican Spanish. An understanding of weakening in these regions is a prerequisite to the analysis to be conducted



later in this study, as the data analyzed herein are drawn from interviews with Rep. Gutiérrez on U.S. television and Puerto Rican radio. Thus, by describing weakening in the dialects of those speakers most likely to encounter Spanish-language mass media discourse on the U.S. mainland and in Puerto Rico, it becomes possible to interpret Gutiérrez's variation in weakening across contexts within the framework of audience design and accommodation. Finally, Section 2.2.3 reframes existing work on weakening, de-emphasizing the ternary [s]/[h]/[0] allophonic classification often found in the literature in favor of a more binary definition of weakening that better serves the descriptive and inferential goals and theoretical orientation of this study.

### **2.2.1 Language-Internal and Language-External Accounts of Weakening**

Many existing accounts in the literature focus on the effects of language-internal factors on /s/ weakening, but a comprehensive understanding of /s/ of a sociolinguistic variable must integrate language-external factors and rebalance the roles of internal and external factors in explaining weakening. However, in developing an inferential quantitative model to apply to the data in the present study, it is productive to review the literature in /s/ weakening to learn what types of factors researchers have identified in previous attempts to account for the phenomenon.

With respect to language-internal factors, most of the explanations of weakening have been drawn from the fields of morphology and phonetics and phonology. For example, Lipski (1985, 1986a, 1986b) has written extensively on the roles of a token's position within a word and the phonetic environment surrounding the token in determining weakening. Mason's (1994) account of /s/-weakening draws heavily on the work of Lipski in its reference to phonetic environment, but also summarizes weakening behavior by region, integrating a macro-

sociolinguistic component into the research to supplement the role of phonetic factors in explaining weakening. Similarly, Terrell (1977) and Terrell & Tranel (1978) follow this approach, integrating explanations in terms of phonetics and dialectal variation. Further phonetic research on the articulation and acoustics of /s/-weakening can be found in Widdison (1991), who provides an excellent summary of some of the factors underlying the process of aspiration.

More recently, researchers working within the field of phonology have sought to use the methods of inquiry in that field to account for weakening. For example, Boomershine (2006) has discussed the role of exemplar theory in conditioning speakers' production and perception of weakened tokens. Other researchers, such as Lipski (1999), have attempted to account for weakening by using the framework of Optimality Theory, arguing for the existence of ambisyllabicity constraints that promote weakening in different environments.

Additional research on weakening has come from the areas of morphology and syntax, with studies such as Ranson (1993) claiming a considerable influence of morphosyntactic factors on weakening, particularly in the case of number markers, i.e. the Spanish plural *-s*, with Carvalho (2006) further corroborating this work on number marking and its influence on the presence or absence of /s/ tokens. Additional research on the morphosyntactic influences on weakening can be found in the work of others, such as Hoffman (2001) and Poplack (1980), who argues that the necessity to resolve structural ambiguity between singular and plural constructions can occasion higher rates of orally constricted /s/ production.

The language-internal evidence for weakening found in the studies cited above has dominated the research thus far, but recent work has also incorporated sociolinguistic, or language-external, explanations for weakening. For example, Chappell (2013) moves beyond the more common language-internal explanations for weakening in Nicaraguan Spanish and

considers social factors influencing the rise of the glottal stop as an allophone for /s/ in certain contexts. Others, such as Hualde (2005), offer situational or contextually based commentaries on the prevalence of weakening, noting that the formality of a situation and the associated speech register can have significant effects on weakening.

Despite a wealth of studies investigating the aforementioned factors, two trends have emerged from the research. The first of these is the considerable variety in explanations proposed by the researchers who have written on the topic up to this point. It is evident that there are many factors that can contribute to the weakening of the /s/ phoneme, and it is difficult to isolate the contributions of the various factors that influence weakening or control for all factors in examining a data set. The second trend to emerge from past literature is the limited integration of language-internal and language-external factors found therein, especially considering that the trajectory of sociolinguistic methodology has turned toward intraspeaker variation as a unit of study. Given this methodological evolution, it is worthwhile to improve the integration of language-internal and language-external factors in explaining variation, as well as incorporating tools from fields outside of sociolinguistics. Gradoville (2011) notes that acoustic phonetics has become increasingly popular in the field of sociolinguistics as a tool for exploring variation, and such work is indicative of the theoretical orientation of this study which, while conceived primarily as a style-shifting study, utilizes tools from phonetics to define the different types of variants of /s/ deployed by speakers; in this case, the phonetic information in Section 2.3 helps to reframe /s/ as a style-bearing variable by drawing on acoustic criteria to classify tokens.

As the data to be presented below show, the effects of language-external factors, in particular the composition of the audience, are often not straightforward and can interact with language-internal factors in ways that are not necessarily predictable from the results of previous

studies which generally hold language-internal and language-external factors apart from one another. The next subsection will focus on a more in-depth discussion of the relationship between phonetic environment and weakening in the most popular national varieties spoken in the United States.

### **2.2.2 Weakening of /s/ in Mexican and Caribbean Spanish**

The status of /s/ weakening in Mexico has not been described exhaustively in the literature, as much of the research on weakening in Mexico has focused on the capital, Mexico City, and its surroundings. Despite the capital's considerable population of nearly 9 million, it accounts for just 7.5% of the country's population and only 0.075% of the country's geographical area. While much of the literature on Mexico City reports that residents of the capital and its surrounding areas typically retain syllable- and word-final /s/ (Mason 1994), there is some diversity in the results of experiments conducted in other parts of the country. For example, López Chávez (1977) reports some weakening in La Cruz, a city northwest of the capital in the state of Sinaloa, but the results of this study are based on a small sample size of only four interviews. Similarly, Hidalgo (1990) reports some weakening in Mazatlán, another city in Sinaloa, but her results only take into account the speech of fifteen informants. While studies such as those conducted by Hidalgo and López Chávez do demonstrate the existence of at least some variation with respect to weakening in Mexico, studies on /s/-weakening conducted outside of the immediate area of Mexico City are both relatively rare and small in scope. In order to more accurately capture the intricacies of variation in weakening in Mexico, more current and larger-scale studies are required. However, for the purposes of this study, general

trends in the literature, summarized in Mason (1994) and Hualde (2005), suggest that Mexican Spanish tends to be more conservative than other varieties of Spanish where weakening is concerned, favoring productions of /s/ with an oral constriction.

In contrast to Mexican Spanish, the literature on the various dialects of Caribbean Spanish is more extensive, with a significant available body of work on /s/-weakening across varieties. For example, Terrell (1977) and Terrell & Tranel (1978) investigate the allophonic realizations of /s/ in four phonetic environments: prepausally (##), word-finally before a vowel (#V), word-finally before a consonant (#C), and word-medially before a consonant (\_C). The results of these studies, adapted from the original works and Mason (1994), are summarized below in Table 1. The table provides the percentage of weakened /s/ tokens in each phonetic context for three Caribbean nations. In addition to Puerto Rican and Cuban dialects, the non-island Caribbean dialect of Venezuela is included for comparison when available. For methodological reasons further discussed later, the figures below have been adapted to reflect the binary distinction of weakening vs. non-weakening, rather than the ternary [s]/[h]/[0] distinction favored by other scholars. The motivation for this classification is discussed in more detail in Chapters 3 and 4.

	<b>##</b>	<b>#V</b>	<b>#C</b>	<b>_C</b>
<b>Puerto Rico</b>	60%	81%	98%	97%
<b>Cuba</b>	39%	82%	98%	94%
<b>Venezuela</b>	60%	87%	96%	--

**Table 1. Rates of weakening of /s/ by phonetic context for three Caribbean regions: Puerto Rico, Cuba, and Venezuela.**

The general patterns that emerge from the data show that weakening of the /s/ in Caribbean native speakers is least common prepausally (##). The rate of weakening increases in word-final, prevocalic (#V) contexts, averaging over 80% across the three regions, before becoming

near-categorical in the case of preconsonantal /s/, both word-medially (\_C) and word-finally (#C). These figures from native speakers provide a useful standard of comparison when analyzing Gutiérrez's speech, and further analysis of the implications of these data may be found in Chapter 5.

### 2.3 REFRAMING /S/-WEAKENING AS A STYLISTIC VARIABLE

As previously alluded to, the research in the tradition of Spanish phonetics has generally utilized a ternary distinction of oral constriction, aspiration, and deletion/elision to describe the ways in which the /s/ phoneme is realized, as noted in Face (2008: 10):

a primary characteristic in distinguishing between regional varieties of Spanish...is what is typically referred to as the aspiration and elision of /s/. The term 'aspiration' as used in relation to Spanish /s/ is distinct from its typical use in phonetics and phonology. Here it refers to **the loss of oral constriction** of the consonant, resulting in /s/ being pronounced as [h]. **While in some varieties that have a weakened pronunciation of /s/ only aspiration occurs, in others both aspiration and elision are attested.** (my emphasis)

Like the authors summarized in the preceding section, Face acknowledges both the two primary subcategories of weakening – aspiration and elision – and the practices for transcribing this variation in the literature, which include the use of [0] to represent elided tokens. A comprehensive description of /s/-weakening in Spanish lies beyond both the scope and intent of the present work, as does the process of distilling the considerable breadth of variation in /s/ production into a set of standardized transcription practices that adequately capture this variation. According to Face in the excerpt above, *weakening* functions as a cover term for a set of variants of /s/ comprising aspirated and elided tokens. Moreover, Face's primary criterion for considering a token to be weakened is the "loss of oral constriction." For the stylistic analysis

that forms the backbone of this study to proceed effectively, an extremely fine-grained analysis of weakening is unnecessary. It is evident from the literature that aspiration and elision can coexist within dialects, as shown in the original charts that were adapted to create Figures 4-7 above.

Using Face's criterion of "loss of oral constriction" as a starting point, it is possible to adapt the typical ternary transcription practices found in the literature, reframe weakening as a binary concept based on both impressionistic auditory and directly observable spectrographic evidence, and hence arrive at a working definition of weakening that facilitates its reinterpretation as a stylistic variable rather than a strictly phonetic one. In other words, by refocusing analysis from the specific mechanics of variation – the *how* of weakening – to the balance of language-internal and language-external factors driving weakening as a stylistic practice – that is, the *why* of weakening – this study expands the understanding of the social dimensions of weakening beyond the regional affiliations more common in the type of sociolinguistic work conducted in the first wave. Nonetheless, it is necessary to briefly explore the acoustics of /s/ in order to specify the empirical criteria for judging weakening.

The acoustic properties of fricatives are well attested in the literature, with studies like Jongman, Wayland, & Wong (2000) producing results that demonstrate correlation between the spectral measurements of a fricative and that fricative's place of articulation. However, some challenges arise which must be acknowledged when attempting to apply existing research on fricatives to Spanish. Most notably, there is significant variation in the production of orally constricted /s/ in Spanish, with a minimum of two variants, laminal and apical, attested in the literature (Hualde 2005). This variation, while prominent in regionally-based descriptions of Spanish dialects, does not alter the phonetic profile of /s/ to the extent that detecting the presence

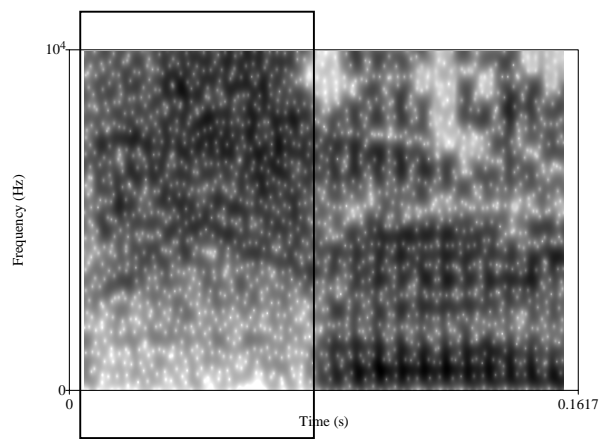
of an oral constriction via perceptual judgment and spectrogram examination becomes infeasible (Thomas 2011, personal communication, February 19, 2014).

In this study, judgments about the presence of oral constriction in /s/ tokens are based on auditory impressions and the description of /s/ in Ladefoged (2001), who argues that /s/ typically has low spectral energy below a frequency of about 3,500 Hz, a high intensity peak around 5,000 Hz, and still more energy extending upward to 8,000-10,000 Hz. This acoustic description of /s/ is generally corroborated by other authors who have investigated the properties of the phoneme (e.g. Hayward 2000; Ladefoged & Johnson 2011; Thomas 2011). Figure 6 below illustrates these acoustic characteristics in the speech of Rep. Gutiérrez via spectrograms and spectral slices taken from three different tokens of /s/ in the study data. Example (a) illustrates an orally-constricted [s] in onset position, extracted from the word *son* ‘they are,’ which has been outlined in a rectangle for ease of identification. The corresponding spectral slice in (b) reveals high energy after about 5,000 Hz, continuing until 10,000 Hz, the maximum frequency available in the spectral slice. The outlined region of the spectrogram in (c) and corresponding spectral slice in (d) show an aspirated, non-orally-constricted token from word-medial position in the word *impuestos* ‘taxes.’ In contrast to the spectral slice taken from the orally-constricted token, there is a concentration of energy at the low end of the spectrum, but the higher frequency energy characteristically found in orally constricted token is absent. Finally, in (e), the spectrogram represents a token that is essentially fully elided, with the rectangular region highlighting the absence of visual spectrographic evidence for either aspiration or oral constriction in the final /s/ in the first word of the phrase *sus estudios* ‘his studies.’ The elision of the word-final /s/ is such that the transition between words resembles a diphthong. In the interests of space, only the first two segments of the word *estudios* are included in the spectrogram. The accompanying spectral

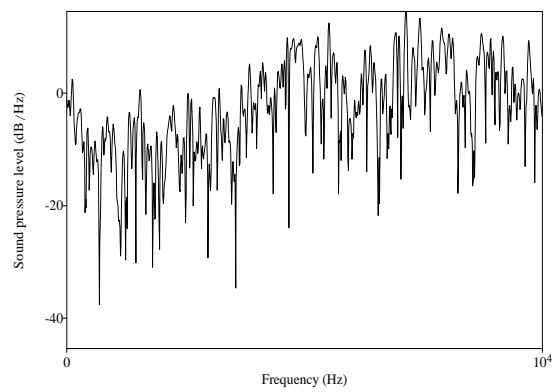


slice in (f) demonstrates a lack of evidence of oral constriction, much in the same manner as (d); this lack of evidence of oral constriction is conspicuous in both aspirated and elided tokens, which facilitates the classification of tokens in a binary fashion based on the lack of high-frequency energy.

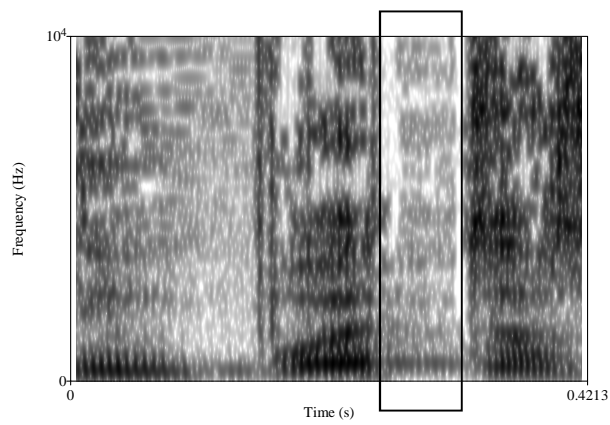
(a)



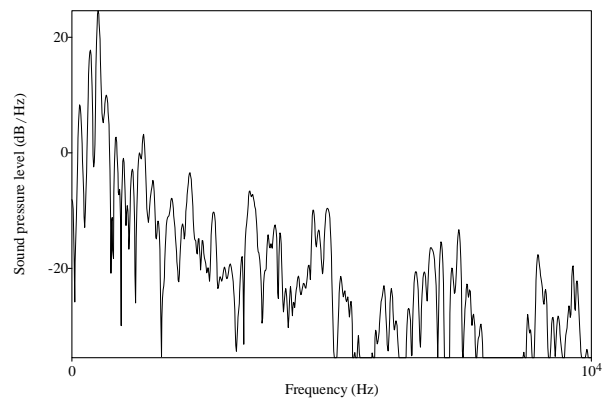
(b)

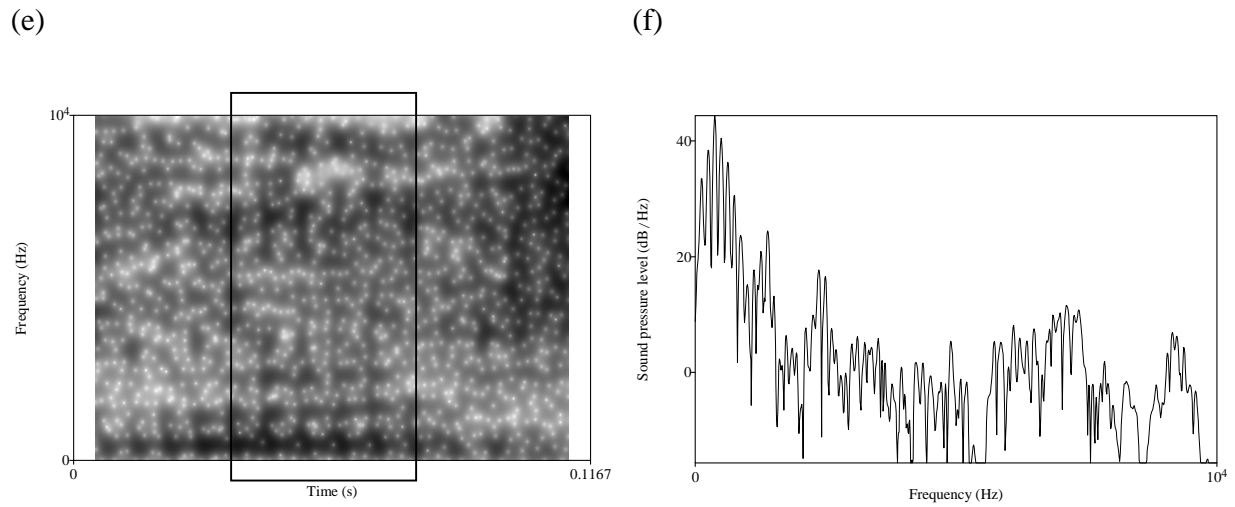


(c)



(d)





**Figure 2. Spectrograms and spectral slices (0-10,000 Hz) of selected /s/ tokens produced by Rep. Gutiérrez. Examples (a) and (b) represent orally-constricted token of /s/; (c) and (d) depict an aspirated token; (e) and (f) depict an elided token.**

Based on the examples in the table, the statistical analysis conducted in Chapter 4 will encode weakening as binary, with the classification of tokens based on impressionistic auditory evidence as well as acoustic evidence of oral constrictions as specified here. This classificatory framework allows the analysis to focus on Gutiérrez’s deployment of either type of weakened /s/ rather than accounting for the precise acoustic nature of the variation. Chapters 3 and 4 will describe the specific research questions arising from the data and discuss in detail the process of statistical analysis.

### **3.0 RESEARCH QUESTIONS, DATA, AND METHODS**

This chapter will describe in detail the research questions to be addressed by this study, the data used to investigate those questions, and how the research questions motivate the design of the statistical testing carried out in Chapter 4. Although charts and tables are provided throughout the text in Chapters 3 and 4 for ease of reference, more comprehensive information and resources on the present study may be found online in the Supplemental Materials Package. Full information about the contents of the Supplemental Materials Package and how to access it online can be found in Appendix A.

#### **3.1 STATEMENT OF RESEARCH QUESTIONS**

The present study seeks to contribute to the literature by examining the Spanish-language style shifting of Rep. Gutiérrez across two contexts that are primarily differentiated based on intended audiences. The data set in this study is composed of tokens drawn from two interviews with Rep. Gutiérrez, one taken from U.S. media and the second taken from Puerto Rican media. These interviews are described in detail in Section 3.2. The selection of the interview genre is significant for the present work; as noted previously, there has been some recent interest on the part of Spanish-language media executives in the U.S. in coaching their on-air personalities to

use a more universal, palatable variety of Spanish to reach a broad audience of viewers throughout the country. Perhaps due more to demographics than any other factor, these language norms have aligned with the Mexican variety of Spanish, which is relatively conservative, at least in terms of its retention of the /s/ phoneme rather than the weakening or deletion that is prevalent in other dialects. Taking into account these linguistic factors and the personal background of Rep. Gutiérrez, the present study seeks to address the following research questions:

(1) In a strictly descriptive sense, what are the characteristics of Rep. Gutiérrez's speech in the two samples collected for this study? In particular, how does his realization of /s/ vary in its rate of weakening?

(2) When speaking to U.S.-based audiences, does Rep. Gutiérrez's realization of /s/ align more closely with the anticipated language behavior of his audience, or does it align with dialect characteristics he might reasonably be expected to exhibit having been raised by Puerto Rican immigrants in an ethnic enclave neighborhood in Chicago and spending an extended period of time living in Puerto Rico at various points throughout his life? In other words, will his /s/ be subject to a level of weakening closer to that typically found in Puerto Rican Spanish, or will he retain it, as is more popular in mainstream U.S. Spanish-language media? Conversely, when he is speaking to a primarily Puerto Rican audience, does Rep. Gutiérrez's speech more closely align with the increased /s/-weakening that is characteristic of Puerto Rican Spanish, or does he maintain a more conservative dialect to promote increased intelligibility due to the increased visibility of his speech in the media?

(3) If there is variation in Rep. Gutiérrez's Spanish between the two contexts, what are the factors contributing to the variation? How much of the variation can be accounted for in

terms of language-internal factors, such as phonetic environment or rate of speech, and how much can be accounted for by the language-external factor of composition of the audience? What does statistical analysis reveal about the influence of the various types of factors on Rep. Gutiérrez's production of /s/?

Similar to Guy & Cutler (2011), the primary hypothesis of this study is that Rep. Gutiérrez will engage in significantly more /s/-weakening when addressing a Puerto Rican audience. Further, the role of audience, the language-external factor considered in this work, will have a significant effect on Rep. Gutiérrez's weakening, and complicate the ability of language-internal factors to predict weakening. Before engaging in a statistical analysis to test these predictions, the remainder of this chapter will discuss the data to be analyzed, and the process for coding the data set.

### 3.2 DATA

The data for this study are drawn from two publicly available video interviews with Rep. Gutiérrez, which were obtained through the online YouTube video service. Using the open source software program FFmpeg, the audio was extracted from each video file to a .wav file, retaining the original sampling rate of 44,100 Hz for both speech samples. Subsequently, the .wav files were transcribed first in Microsoft Word, then in Praat, and tokens of /s/ were tabulated according to the specifications set forth in this chapter. In total, two samples were analyzed, for a total of 325 tokens of syllable- and word-final /s/.

The video of the first sample (Univisión 2011; hereafter Sample 1) is taken from an interview on the “Al Punto” news program on the Spanish-language television network Univisión. In this interview, which was broadcast to a national audience in the U.S., the host of the program, Jorge Ramos, interviews Rep. Gutiérrez about his experiences traveling to Alabama to observe firsthand the effects of HB 56 on the Latino population there. Ramos is a Mexican-born, U.S.-based news anchor who is a fixture on the lists of the most influential and well-recognized Hispanic people in the United States, as determined by popular publications such as *Time* magazine (Biography n.d.). The interview with Ramos lasts for 6 minutes and 33 seconds, and covers a range of topics about Gutiérrez’s experience visiting Alabama and immigration more generally.

The second sample (Radio Isla 2011; hereafter Sample 2), is an in-studio video recording of a radio interview with Rep. Gutiérrez on Radio Isla 1320 AM, a Puerto Rican radio station. In this sample, the late Benny Frankie Cerezo, the host of the program, interviews Rep. Gutiérrez about his experiences living and working in Puerto Rico. Cerezo was a well-known Puerto Rican attorney, political commentator, and scholar of constitutional law until the time of his death in April of 2013. In the latter part of his life, he was a fixture in Puerto Rican popular media as a commentator on political and legal matters; Cerezo’s writing appeared in various newspapers, and he was also the host of the regular radio program from which Sample 2 was taken. In contrast to Jorge Ramos in Sample 1, Cerezo is a native speaker of Puerto Rican Spanish, having been a resident of the island for most of his life, with the exception of stints at Harvard University and La Universidad Complutense de Madrid to pursue graduate degrees. Sample 2 is slightly shorter than Sample 1, at 5 minutes and 31 seconds in length, and covers

Gutiérrez's experience relocating to Puerto Rico as a child as well as his career before being elected to Congress.

The samples selected for this study were chosen to primarily represent two different contexts within the interview genre. The interview genre was selected for two principal reasons. First, the ready availability of publicly accessible interview data facilitated the collection of data intended for specific audiences. Second, by their very nature, television and radio interviews are intended for wider audiences, and participants in interview discourse must take the target audience into account when making linguistic decisions. As a member of Congress and a vocal advocate for immigrants' rights, Rep. Gutiérrez is a well-known public figure and gives interviews to a variety of media outlets, which are intended for a wide variety of different audiences.

Sample 1 was chosen because of the large and heterogeneous nature of the intended audience and the demographic and linguistic background of the interviewer. With such a large potential audience, language use on U.S. television networks incentivizes accessibility across language and culture differences due to the diversity of potential viewers. Because of the demographic composition of the audience and its reputation as an allegedly "neutral" dialect, Mexican Spanish is often preferred for public media speech in the U.S., particularly on national television. Additionally, the identity and Spanish dialect of the other interlocutor in this situation is significant. Jorge Ramos is a highly trained journalist with decades of experience in communicating with demographically and linguistically diverse audiences. Moreover, Ramos self-identifies as a speaker of Mexican Spanish, noting in an interview that "as hard as I try, there is always a sentence, a word, that would immediately let [audiences] know I'm Mexican" (Melia 2005). As a result of this combination of factors, Ramos is less likely to engage in a socially

marked behavior such as /s/-weakening, especially when that weakening falls outside of the features commonly associated with his native Mexican dialect. Finally, as a speaker of Mexican Spanish, Ramos' language background is more closely aligned with that of the majority-Mexican U.S. viewing public. Ramos' status as a speaker of Mexican Spanish raises an issue of audience design in the interview genre, as it is necessary to account for a speaker's modulation of speech style to accommodate both the physically present interlocutor in the form of the interviewer and the non-participating observers of the interview, i.e. the home viewing audience. While it is impossible to create a situation in which the physically present interlocutor is entirely representative of the home viewing audience, a speaker of Mexican Spanish such as Jorge Ramos helps to mitigate the effect of lack of discrepancy in audience design due to his higher degree of linguistic alignment with the home viewing audience.

Sample 2 differs considerably in its intended audience, yet still attempts to minimize the discrepancy between the linguistic expectations of the physically present interlocutor and the viewing/listening audience. Because of the nature of radio broadcasting and the strong geographical associations that characterize radio stations, the primary audience for a Puerto Rican radio program will likely be restricted to the broadcast area of the radio station. Although technological advances in Internet radio permit listeners worldwide to tune into the station, the nature of radio broadcasting largely limits listening audiences to those who are able to physically receive the signal. As a result, listeners to Radio Isla will likely either be located within the station's broadcast area or will have an interest in hearing programming relevant to Puerto Rican culture. In contrast to television networks such as Univisión or Telemundo, with their diverse viewer bases, a Puerto Rican radio station will likely have a more homogeneous listener base. This homogeneity, in turn, may prompt different sociolinguistic and stylistic decisions, in



particular from a speaker such as Rep. Gutiérrez, who is himself of Puerto Rican heritage, lived and worked on the island for a considerable length of time, and is actively engaged in issues of policy affecting Puerto Rico and its residents. These factors, combined with the background of the program's host, Benny Frankie Cerezo, create an environment in which Rep. Gutiérrez's Puerto Rican dialect would be predicted to be more situationally appropriate, a prediction which an analysis of the data ultimately proves true.

### **3.3 METHODS**

#### **3.3.1 Transcription of Data**

As previously explained, after extracting audio files from the YouTube videos collected as data, rough transcripts were created using Microsoft Word. Then, following Kendall (2009), more fine-grained time-aligned transcripts were created using the open-source Praat phonetics software. While Praat's primary purpose may not be transcription, as Kendall (2009: 61) notes, it is "the best tool for the transcription job...[M]ost importantly, Praat allows for arbitrarily fine-grained time-alignment for any number of speakers." While the largely dyadic structure of a one-on-one television or radio interview precludes many of the difficulties inherent in creating transcripts for interactions with large numbers of speakers, Praat is an invaluable tool due to its ability to record the timing of utterances with extreme accuracy. This accurate timing facilitates the process of calculating rate of speech when conducting phonetic analysis, which is highly advantageous in the present study.

There are a number of issues that arise in the theory of transcription which potentially bear heavily on phonetic analysis. The first and most important of these issues is the unit of analysis when deciding rate of speech. In order to get the most accurate quantitative analysis possible for the purposes of this study, Rep. Gutiérrez's turns in Samples 1 and 2 are divided into intonation units (IU). It is important to note that the definition of intonation unit as used in this study does not strictly follow the concept of intonation units or intonation phrases from mainstream phonological literature. Instead, this study adapts the terminology and practices of Du Bois, Cumming, Schuetze-Coburn, & Paolino (1992) and Du Bois (2006), who roughly define an intonation unit as:

a stretch of speech uttered under a single coherent intonation contour...marked by cues such as a pause and a shift upward in overall pitch level at its beginning, and a lengthening of its final syllable. (Du Bois et. al. 1992: 16)

Each of the IUs in Gutiérrez's discourse was annotated using a two-tiered TextGrid in Praat. On the first tier, bounded regions were created delimiting each intonation unit. Each region was then annotated with a transcription for each of Gutiérrez's IUs in standard Spanish orthography. The boundaries were placed using visual inspection of the waveform to locate the beginning and end of the sounds at the beginning and end points of each IU. The boundaries from the first tier were replicated on the second tier, which was annotated with a syllable count for each IU for the purpose of quick reference when calculating rate of speech.

The methodology for syllabification of IUs is based on Hualde (2005: 73-77). Hualde puts forth several relevant rules for Spanish syllabification in his work; particularly of note is his discussion of the restriction on the occurrence of /s/ in onset clusters, such that the verb *estar* 'to be' is syllabified *es-tar* rather than *\*e-star*, as the /st/ cluster that occurs in the second version may not occur in onset position because it is not a permissible word-initial cluster in Spanish.

The /st/ sequence must be preceded by a vowel in Spanish, typically /e/, and thus the /s/ is drawn away from the cluster and syllabifies in coda position with the word initial vowel as the nucleus. Following all of these divisions and annotations, all tokens were processed according to the procedures in the following section.

### **3.3.2 Token Processing**

For each of the initial 333 tokens of /s/ in the full data set, the following data were entered into a Microsoft Excel spreadsheet, which is available in its entirety in the Supplemental Materials Package:

- **Token Number:** Each token was assigned a number as a unique identifier. In total, 325 tokens were ultimately used in the statistical analysis.
- **Intended Audience:** A categorical variable with a value of either U.S. or P.R., corresponding to the intended audience of the utterance.
- **IU Transcription:** The transcription of the intonation unit in standard Spanish orthography, used to identify tokens of /s/ for analysis.
- **IU Duration:** The duration of the intonation unit rounded to the nearest millisecond, as calculated in Praat. This information, along with a syllable count, is used to derive rate of speech, one of the primary predictors in the statistical analysis.
- **IU Syllable Count:** The number of syllables in the intonation unit.
- **IU Rate of Speech:** The number of syllables per second for the IU, derived by dividing the IU's syllable count by its duration and multiplying by 1000 to convert the units from syllables per millisecond to syllables per second. This figure is computed on an

intonation unit level rather than one value for each speech sample to improve sensitivity and account for variation occurring on an IU-by-IU basis.

- **Word:** The word containing the token, represented in standard Spanish orthography. Although this information will not be put to use in the current study, future expansions of this research may include word frequency effects or word class (lexical vs. functional) as predictors in statistical modeling of /s/ weakening.
- **Weakened:** A dichotomous variable coding whether or not the token is realized with an oral constriction, i.e. as [s], in contrast to any weakened variant, i.e. [h] or [0]. This variable will be the primary outcome variable in the logistic regression analysis conducted for this study. Two primary criteria were used in the coding of this variable. First, each token was examined auditorily and a preliminary determination of weakening status was made. Second, the spectrogram of each token was examined visually, using the presence of a visible darkened region above 5,000 Hz as evidence for the presence of oral constriction, as specified in the literature review in Chapter 2. Tokens exhibiting weakening are coded as 1, and those that do not exhibit weakening are coded as 0.
- **Following Category:** A categorical classification of the segment following the /s/. Following Mason's (1994: 121) discussion of weakening in Puerto Rican Spanish, this variable has four levels: IU-final /s/ (##), word-final /s/ followed by a word-initial vowel (#V), word-final /s/ followed by a word-initial consonant (#C), and word-medial /s/ followed by a consonant (\_C). Due to the nature of Spanish syllabification, the combination of word-medial /s/ followed by a vowel does not occur. Additionally, eight tokens of /s/ from the #C category were excluded from the data set because the initial consonant of the following word was also /s/, making it difficult to correctly code the

weakening status of a final /s/. After these exclusions, the final sample size for the regression dropped from 333 to 325.

- Following SPSS Code: Each of the values of the Following Category variable above was given a numerical code to facilitate analysis within the SPSS statistical program. The values for this variable are 1 (##), 2 (#V), 3 (#C), and 4 (\_C).

The next section will describe the statistical analysis techniques used to describe the influence of three of these predictors on the weakening status of the tokens.

### **3.3.3 Statistical Analysis**

Due to the nature of the data, a two-step hierarchical logistic regression was chosen to carry out the statistical analysis in this paper. In the first step, for each token in the data set, two categorical variables from the list in Section 3.3.2 (Intended Audience and Following Category) and one continuous variable from the same list (IU Rate of Speech) were added to the regression model as predictors, with the dichotomous variable (Weakened) added into the model as the outcome variable. The continuous variable was centered by subtracting the mean IU Rate of Speech for all the data from each data point, and the resulting centered rate of speech was used in the regression. The categorical variables were coded based on the number of levels within the variable. Because Intended Audience is a dichotomous variable, it was indicator coded using only one variable during the data entry phase. On the other hand, because Following Category has four possible values, it was represented using three variables in an indicator coded scheme. The reference groups for each of the indicator coded variables were selected in accordance with the literature such that the variable levels associated *a priori* with the lowest probability of

weakening – the U.S. audience and IU-final /s/ – were coded as the reference groups. This coding schema facilitates interpretation of the results, as the odds ratios generated by the logistic regression can be interpreted as increased odds of weakening relative to these baseline groups, which have the smallest probabilities of weakening according to the literature.

In the second step of the hierarchical regression, a term indicating the interaction between Intended Audience and IU Rate of Speech was added to the model. This step was performed to determine whether the Puerto Rican audience occasioned a higher rate of speech from Gutiérrez and if that higher rate of speech would in turn increase the incidence of weakening. No interaction effect was noted in the second step of the regression, and this interaction will not be discussed further.

In total, identical two-step regressions were performed on three different data sets: the tokens directed to the U.S. audience, the tokens directed to the Puerto Rican audience, and the set of all tokens. These separate calculations were performed to account for any imbalance in sample size between the two contexts. In the discussion in Chapter 4, only the regression conducted on the data set as a whole is discussed, as the other sets of calculations did not reveal any noteworthy deviations from those performed on the full data set.

The data were coded and analyzed using the IBM SPSS Statistics 22 software package. The Supplemental Materials Package contains all relevant SPSS materials for this study, including the fully coded data set, the SPSS code used to conduct the regressions and all associated tests, and the full output generated by the program. In the SPSS data sheet, the variable names for Intended Audience, Following Category, and Rate of Speech are AUDIENCE, FOLLOW, and ROS, respectively, whereas the outcome variable is coded as WEAKENED. Also included in the data sheet are unique identifiers for each token (TOKENID)

and sample number (SAMPLE), corresponding to the sample numbers presented above for each source video. In total, 325 tokens were analyzed in this study, including 181 from Sample 1 and 144 from Sample 2. The results of the study will be discussed in more detail in Chapter 4.

## 4.0 RESULTS

A set of hierarchical logistic regressions was performed on the data with /s/-weakening as the outcome variable. In the first block of the regression, three predictors were included: Intended Audience, Following Category, and the centered value for IU Rate of Speech. The weakening was dichotomized into two levels – /s/ realized as an orally-constricted fricative or somehow weakened, according to the procedure of examining combined auditory and visual spectrographic evidence discussed in Chapters 2 and 3. There were two levels of Intended Audience (U.S., Puerto Rico) and four levels of Following Category (IU-final [##], word-final before vowel [#V], word-final before consonant [#C], and word-medial before consonant [\_C]). In the second step of the regression, a term for interaction between audience and rate of speech was added, but since the results of this step were not statistically significant ( $p = .661$ ), they are not discussed here, except to mention that increases in rate of speech due to audience do not account for differences in weakening in a significant way. In other words, while rate of speech does contribute to the likelihood of weakening, the rate of speech in Gutiérrez's discourse is not primarily due to the influence of audience. Except where otherwise explicitly noted, all statistical analysis in this chapter is understood to refer to the first step of the hierarchical regression conducted on the full data set. For reference, full statistical output from SPSS is available in the Supplemental Materials Package.



An omnibus F test for the model as a whole revealed a significant prediction of weakening by the combination of the predictors as entered,.  $\chi^2(5, N=325) = 65.142, p < .001$ , Nagelkerke  $R^2 = .243$ . The results of the omnibus F test are shown in Table 1. Sections 4.1 and 4.2 will summarize the results of assumption testing and interpretation for the individual predictors.

**Omnibus Tests of Model Coefficients**

		Chi-square	df	Sig.
Step 1	Step	65.142	5	.000
	Block	65.142	5	.000
	Model	65.142	5	.000

**Table 2. Results of omnibus F test for primary logistic regression analysis.**

#### 4.1 ASSUMPTION CHECKING

In accordance with best practices, a number of tests were performed on the data to verify that the assumptions for logistic regression were met prior to conducting statistical analysis. Two of the tests performed were the Hosmer-Lemeshow test for goodness of fit and the Box-Cox test for linearity of the logit. Further, studentized residuals were used to check for the presence of outliers, and variance inflation factor (VIF) indices were computed to check for multicollinearity among the predictors. The results of these tests will now be discussed briefly; more complete output for all of the tests may be found in the Supplemental Materials Package.

First, the Hosmer-Lemeshow test for goodness of fit was conducted on the data. As indicated by this test, there was no significant difference between observed and predicted group membership of the data points, Hosmer-Lemeshow  $\chi^2(8) = 7.019$ ,  $p = .535$ .

Next, to check for linearity between the continuous predictor, IU Rate of Speech, and the logit calculated in the regression, a macro for the Box-Cox procedure was used in SPSS and verified by a second test conducted by a statistical consultant (P. Scott, personal communication, February 26, 2014). The results of the test indicated that the assumption of linearity is satisfied, and no transformation of variables is necessary based on violations of linearity. The results of both of these tests are available in the Supplemental Materials Package.

Studentized residuals for each data point were calculated using SPSS to check for outliers in the data. Using the metric that studentized residuals with an absolute value greater than 3 may indicate outliers, the studentized residual value for each data point was examined, and no outliers were found. As a result, no data points were removed based on this criterion, and the entire pool of available data ( $n = 325$ ) was included in the analysis. The full set of studentized residuals for the data is found in the SRESID column of the SPSS data sheet in the Supplemental Materials Package.

Finally, variance inflation factor (VIF) indices were computed for the data. The absence of any VIF values greater than or equal to 10 demonstrates that these data do not exhibit significant degrees of multicollinearity. Having thus established that all necessary assumptions for effective regression have been met, the next section will discuss the significance of each of the variables in the overall model.

## 4.2 EFFECTS OF INDIVIDUAL VARIABLES

This section will discuss the statistical significance of each of the predictors in turn. To facilitate this discussion, Table 2 contains regression coefficients (B), Wald chi-square values, odds ratios (Exp(B)), and other relevant information for each of the predictors.

		Variables in the Equation						95% C.I. for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1 <sup>a</sup>	P.R. Audience	1.493	.254	34.633	1	.000	4.450	2.707	7.317
	Rate of Speech	.411	.099	17.169	1	.000	1.508	1.242	1.832
	##			3.747	3	.290			
	#V	-.384	.416	.852	1	.356	.681	.301	1.540
	#C	.280	.381	.541	1	.462	1.323	.627	2.791
	_C	-.138	.376	.135	1	.713	.871	.417	1.820
	Constant	-.860	.326	6.962	1	.008	.423		

Table 3. Summary of logistic regression results for audience, rate of speech, and following segment.

### 4.2.1 Effect of Audience

In the sample, tokens of /s/ produced for a Puerto Rican audience were more almost 4.5 times more likely to be weakened than /s/ tokens produced for a U.S. audience,  $B = 1.493$ ,  $\chi^2(1) = 34.633$ ,  $p < .001$ ,  $\exp(B) = 4.450$ . The statistical significance of this result demonstrates the considerable influence that the intended audience of the discourse has on Gutiérrez's weakening behavior. This result is consistent with previously referenced literature in this study which attests to the increased incidence of weakening in Caribbean dialects such as Puerto Rican

Spanish (e.g. Mason 1994), as well as Gutiérrez's decision to engage less frequently in weakening when addressing an audience on mainland U.S. television, consistent with Ahrens (2004). These results support the hypothesis that the /s/ variable may be modulated in response to audience composition, thus providing evidence for a main hypothesis of this study.

#### **4.2.2 Effect of Rate of Speech**

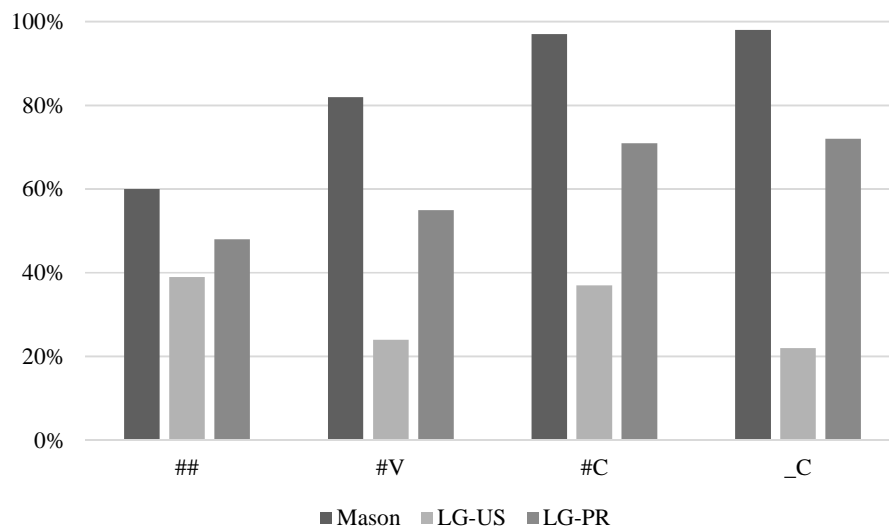
Centered rate of speech, as measured in syllables per second at the intonation unit level, also significantly predicted weakening behavior,  $B = .411$ ,  $\chi^2(1) = 17.169$ ,  $p < .001$ ,  $\exp(B) = 1.508$ , although the interpretation of the odds ratio is slightly different due to the continuous nature of the variable. For each increase of one unit (i.e. one syllable per second) in Gutiérrez's rate of speech, the likelihood of weakening increased by a factor of 1.508. In other words, each increase of one syllable per second in the rate of speech of the containing intonation unit makes a token just over 1.5 times more likely to be weakened.

#### **4.2.3 Effect of Following Segment**

The type of the segment following the /s/ token fails to significantly predict weakening in the model as entered,  $\chi^2(3) = 3.747$ ,  $p = .290$ . This result is striking given the high degree of consistency in weakening behavior noted by Mason (1994) in his summary of the literature on Puerto Rican Spanish, but at the present time, the wide confidence intervals of the odds ratio for each value of the categorical following segment variable should be noted. Because the confidence intervals contain values both greater than and less than one, it is possible that the

actual odds ratio may be greater than one, which would indicate an increase in weakening based on following segment. Future statistical analysis may help to clarify the effect of environment as a factor in weakening.

Despite a lack of statistical support for the influence of following segment, it should be noted that the descriptive statistics associated with this variable seem to support the idea that phonetic context appears to influence weakening at least to some extent. When a logistic regression is run with following segment as the only predictor of weakening, the results very nearly reach statistical significance ( $p = .051$ ). Mason (1994: 120), in his discussion of weakening across dialects, provides descriptive statistics of weakening behavior by phonetic environment in Puerto Rican Spanish. For the purposes of comparison, the chart below juxtaposes Mason’s data on Puerto Rican Spanish with the observed performance of Rep. Gutiérrez while speaking to U.S. and Puerto Rican audiences. This comparison provides useful baseline information when interpreting the results of the statistical analysis.



**Figure 3. Weakening rates for Puerto Rican speakers and Rep. Gutiérrez across phonetic contexts – prepausal, word-final before a vowel, word-final before a consonant, and word-medial before a consonant.**

The LG-US bars indicate Rep. Gutiérrez's rates of weakening when speaking to a U.S. audience, while the LG-PR bars indicate weakening with a Puerto Rican audience.

As the data show, there is considerable stylistic modulation in Gutiérrez's weakening rates when audience is taken into account. There is a trend across phonetic contexts in which the weakening rates in Mason's data exceed both of Gutiérrez's weakening rates, but it is noteworthy that when speaking to a Puerto Rican audience, Gutiérrez's rates of weakening not only approach those found in Mason's data for native island speakers, but also more closely approximate the roughly-increasing trajectory of rates of weakening found when reading across contexts in the chart from left to right. When speaking to a U.S. audience, Gutiérrez's rates of weakening decline sharply and exhibit less regularity across contexts than comparable data both from Mason's Puerto Rican speakers and his own speech when directed to a Puerto Rican audience.

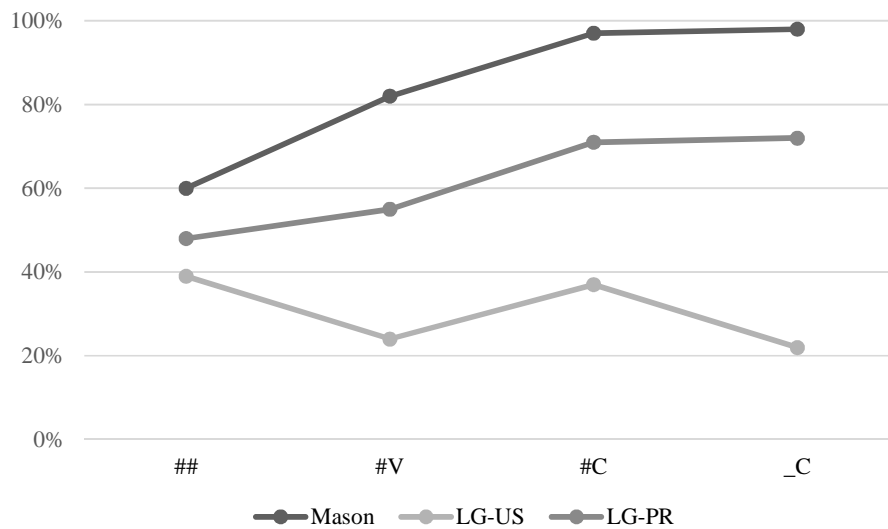


Figure 4. Trajectories of weakening across phonetic contexts for Mason's speakers and for Rep. Gutiérrez with a U.S. audience (LG-US) and a Puerto Rican audience (LG-PR).

The line graph demonstrates more clearly the trajectories of weakening across phonetic contexts, and some striking observations emerge. The first of these is the similar shapes of the top and middle lines, which indicate Mason's (1994) aggregated Puerto Rican speakers and Gutiérrez's Puerto Rican directed speech, respectively. What is noteworthy is that Gutiérrez's weakening behavior largely echoes that of Mason's speakers, but has been vertically shifted on the graph. In other words, when speaking to a Puerto Rican audience, Gutiérrez behaves in line with other speakers of the dialect, but only when considering phonetic contexts *relative to each other*; his use of weakening in absolute terms still lags behind that of the Puerto Rican speakers in the literature, leveling off at approximately 75%, whereas his compatriots in Puerto Rico exhibit near-categorical weakening in similar circumstances.

When addressing U.S. audiences in a more overtly style-shifted context, the profile of Gutiérrez's weakening behavior changes drastically. Despite small sample sizes in existing investigations as previously noted, little evidence exists for significant weakening in Mexican Spanish, although Gutiérrez exhibits roughly 20-40% weakening depending on the phonetic context. If U.S. broadcast norms are understood to be aligned with Mexican Spanish, as least as far as weakening is concerned, although Gutiérrez better accommodates the more conservative Mexican dialect in his U.S. audience-directed speech, the rather high rate of weakening in that speech reflects an incomplete accommodation. Moreover, the erratic shape of the lowest line in Figure 10 fails to match the similar trajectories of the two Puerto Rican cases. Thus, when style-shifted into a dialect that does not match the norms that might be expected of him as a Puerto Rican speaker, Gutiérrez falls into a state of weakening limbo, accommodating neither the norms of his native dialect nor those of the situationally-adopted dialect. These results are consistent with the exponential accommodation models shown in Guy & Cutler (2011). Specifically, the

burden of shifting styles seems to manifest mostly in Gutierrez's incomplete accommodation of expected norms with respect to weakening, and though he makes an effort to align with the norms of his audience in this regard, both his absolute rates of weakening and relative rates of weakening across phonetic contexts indicate incomplete accommodation.

Finally, and perhaps most importantly, the inability of the language-internal factor of following segment to predict weakening in a statistically significant manner, despite near-significance when tested as the sole predictor in a logistic regression model and the strong support in the literature for the influence of following segment on weakening, shows that style shifting, at least in the case of the present data set, can work to confound the predictability of weakening and suppress the influence of factors such as following segment which might be typically expected to account well for weakening. This result requires extensive further investigation over larger data sets, with more speakers and more contextual variation, in order to clarify the contribution of context-based intraspeaker variation to /s/-weakening behavior.

The final chapter will re-examine the research questions proposed at the beginning of this study and address the ability of the data to respond to these questions, and propose future theoretical questions and improvements to statistical analysis and coding procedures in an effort to enhance the data's ability to explain the phenomenon of /s/ weakening in future revisions.



## 5.0 DISCUSSION

The primary goals of the present study have been to integrate existing literature on Hispanic linguistics and third wave sociolinguistics via a discussion of the research questions first laid out in Chapter 3, which are reiterated here:

(1) In a strictly descriptive sense, what are the characteristics of Rep. Gutiérrez's speech in the two samples collected for this study? In particular, how does his realization of /s/ vary in its rate of weakening?

(2) When speaking to U.S.-based audiences, does Rep. Gutiérrez's realization of /s/ align more closely with the anticipated language behavior of his audience, or does it align with dialect characteristics he might reasonably be expected to exhibit having been raised by Puerto Rican immigrants in an ethnic enclave neighborhood in Chicago and spending an extended period of time living in Puerto Rico at various points throughout his life? In other words, will his /s/ be subject to a level of weakening closer to that typically found in Puerto Rican Spanish, or will he retain it, as is more popular in mainstream U.S. Spanish-language media? Conversely, when he is speaking to a primarily Puerto Rican audience, does Rep. Gutiérrez's speech more closely align with the increased /s/-weakening that is characteristic of Puerto Rican Spanish, or does he maintain a more conservative dialect to promote increased intelligibility due to the increased visibility of his speech in the media?

(3) If there is variation in Rep. Gutiérrez's Spanish between the two contexts, what are the factors contributing to the variation? How much of the variation can be accounted for in terms of language-internal factors, such as phonetic environment or rate of speech, and how much can be accounted for by the language-external factor of composition of the audience? What does statistical analysis reveal about the influence of the various types of factors on Rep. Gutiérrez's production of /s/?

The primary claim made in this paper is not only that Gutiérrez's weakening will differ significantly across audiences, but also that the primary factor driving the change in weakening behavior will be primarily language-external. The statistical analysis carried out in Chapter 4 lends credence to the hypothesis offered earlier. In this way, the current study contrasts with most existing literature, including the majority of that reviewed in Chapter 2, which generally accounts for weakening in phonetic, phonological, or morphological terms, by positing an explanation in which phonetic predictors fail to achieve statistical significance when considered alongside style, which ultimately holds much more predictive power in the model as entered.

Investigating the phenomenon of /s/ weakening with a subject like Rep. Gutiérrez is particularly well-suited to making a counterargument to this tendency in the literature, as Gutiérrez is a speaker of a dialect which exhibits nearly categorical weakening of /s/ in some contexts, and the target variety of his style shifting is quite conservative in this regard, showing little significant evidence of weakening. As we attempt to place Gutiérrez on a continuum of weakening between these two endpoints, we reach a conclusion that is unremarkable given the third-wave theoretical orientation underpinning the paper's primary claim – specifically, that there is a considerable divergence in Gutiérrez's weakening tendencies based on audience. As a speaker of Puerto Rican Spanish, Gutiérrez could very reasonably be expected to engage in more

frequent weakening around other speakers of the same dialect and eschew weakening in a situation in which it is advantageous for a speaker to tailor his speech to maximize comprehensibility for the audience.

In addition to the conclusions suggested by the logistic regression about the factors influencing variation, this study suggests some important questions for linguists interested in the effects of style on speech, regardless of theoretical orientation. One conceivable explanation for the patterning of Rep. Gutiérrez's speech depicted in Figure 4 lies in Bell's claim that Gutiérrez, like other style shifters, cannot be expected to fully accommodate the norms of speakers of his target dialect. In this case, he cannot be expected to entirely erase the weakening characteristic of his native dialect, but he can attempt to scale it back to accommodate the norms expected of the target dialect. The result of this attempt is weakening that is not consistent with the norms of native speakers of Puerto Rican Spanish, native speakers of Mexican Spanish, or Gutiérrez's own speech when directed toward an audience of speakers of his native dialect. It is also worthwhile to consider that the effort necessary to accommodate the norm of reduced weakening may either prevent consistency of trajectory on the part of the speaker or influence the relative importance of the predictors in the regression model. That is, the demand of the stylistic shift may temporarily mask or override the influence of phonetic context, and as a result, the regression model reaches a conclusion about the significance of style shifting that may reflect a temporary, but no less valid, set of systematic decisions made by a speaker to achieve an interactional goal. In the past, Labov and others have termed this temporary influence of style "attention to speech," but as this and other studies demonstrate, the effects of attention to speech are rarely straightforward.

To investigate this and other possibilities for improving our understanding of weakening, and style shifting more broadly, three primary ideas should inform future research. First, it is necessary to determine which other independent variables may improve the explanatory power of the model in the absence of statistically significant effects from following segment. To that end, future revisions of this study will include several additional predictors in the logistic regression model, such as a lexical/functional distinction, word frequency based on Spanish language corpora, and syllable count of the word containing the token. Inclusion of these new predictors in future revisions serves two primary purposes: first, it will allow exploration of the interactions between phonetic, phonological, and morphosyntactic factors with style; second, it will answer questions about the broader tendency of style to suppress the ability of independent variables such as following segment to predict weakening. This study has laid the groundwork for establishing this tendency, but more investigation is needed to clarify the extent to which it operates.

Additional investigation of the sociolinguistic themes taken up here, including increasing the number of speakers and further exploring style shifting and audience accommodation in the Spanish of Puerto Rican speakers stands to significantly impact the understanding of style shifting in the linguistics community as a whole. Despite an emergent body of literature in the third wave of sociolinguistics, the idea of the style as a burden incurred by a speaker working outside his or her preferred styles or dialects as a potential complicating factor in accounting for sociolinguistic variation remains as an area for considerable further probing. To this point, the literature on /s/-weakening has performed admirably in asking the types of questions needed to determine how a process like weakening works, but reframing the issue of weakening as a

sociolinguistic, and more specifically stylistic, issue ultimately raises questions that can only be adequately addressed by significant expansion of the present study.

## APPENDIX A

The Supplemental Materials Package referred to throughout this document may be found on the author's website, located at <http://www.pitt.edu/~jbf24/downloads.html>. The package will also be permanently archived on the online D-Scholarship archive at the University of Pittsburgh, located at <http://d-scholarship.pitt.edu>. The following documents are contained in the Supplemental Materials Package. Unless otherwise specified, the documents are available in Adobe Portable Document Format (PDF):

- The fully tabulated final data set used in the project in both Microsoft Excel and PDF format.
- An SPSS data file containing the final data set used in the statistical analysis in Chapter 4.
- Full SPSS syntax for the statistical analysis conducted in Chapter 4.
- Full SPSS output created by running the syntax.
- A copy of the SPSS macro used to test for linearity of the logit.
- A graphic showing a secondary Box-Cox test for linearity of the logit, run by a statistical consultant to verify linearity during assumption checking.

## BIBLIOGRAPHY

- Ahrens, F. (2004, August 2). Accent on Higher TV Ratings. *Washington Post*. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf>
- Alabama State House of Representatives (2011). *House Bill 56*. Retrieved from [http://www.acca-online.org/legis\\_news/2011\\_bills/HB56-enr.pdf](http://www.acca-online.org/legis_news/2011_bills/HB56-enr.pdf)
- Arizona State Senate (2010). *Senate Bill 1070*. Retrieved from <http://www.azleg.gov/legtext/49leg/2r/bills/sb1070s.pdf>
- Alim, H. (2004). Hip Hop Nation Language. In E. Finegan & J. Rickford (Eds.), *Language in the USA: Themes for the 21<sup>st</sup> Century* (387-409). Cambridge, UK: Cambridge University Press.
- Bell, A. (1984). Language style as audience design. *Language in Society* 13: 145-204.
- Biography (n.d.). Retrieved from <http://jorgeramos.com/en/biography/>
- Boomershine, A. (2006). Perceiving and Processing Dialectal Variation in Spanish: An Exemplar Theory Approach. In T. Face & C. Klee (Eds.), *Selected Proceedings of the 8<sup>th</sup> Hispanic Linguistics Symposium* (58-72). Somerville, MA: Cascadilla Proceedings Project.
- Bucholtz, M. (2001). The Whiteness of Nerds: Superstandard English and Racial Markedness. *Journal of Linguistic Anthropology* 11(1): 84-100.
- Carvalho, A. (2006). Nominal number marking in a variety of Spanish in contact with Portuguese. In T. Face & C. Klee (Eds.), *Selected Proceedings of the 8<sup>th</sup> Hispanic Linguistics Symposium* (154-166). Somerville, MA: Cascadilla Proceedings Project.
- Chappell, W. (2013). *Social and Linguistic Factors Conditioning the Glottal Stop in Nicaraguan Spanish* (Unpublished doctoral dissertation). The Ohio State University, Columbus, OH.
- Cutler, C. (1999). Yorkville Crossing: White teens, hip hop and African American English. *Journal of Sociolinguistics* 3(4): 428-442.
- Dávila, A. (2001). *Latinos, Inc.: The Marketing and Making of a People*. Berkeley, CA: University of California Press.

- Du Bois, J. (2006). *Representing Discourse*. Retrieved from <http://www.linguistics.ucsb.edu/projects/transcription/representing>
- Du Bois, J., Cumming, S., Schuetze-Coburn, S., & Paolino, D. *Santa Barbara Papers in Linguistics Volume 4: Discourse Transcription*. Santa Barbara, CA: University of California-Santa Barbara.
- Eckert, P. (2012). Three Waves of Variation Study: The Emergence of Meaning in the Study of Sociolinguistic Variation. *Annual Review of Anthropology* 41: 87-100.
- Ennis, S., Ríos-Vargas, M., & N. Albert (2011). *The Hispanic Population: 2010*. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf>
- Face, T. (2008). *Guide to the Phonetic Symbols of Spanish*. Somerville, MA: Cascadilla Press.
- Full Biography (n.d.). Retrieved from <https://gutierrez.house.gov/about-me/full-biography>
- Guy, G. & Cutler, C. (2011). Speech style and authenticity: Quantitative evidence for the performance of identity. *Language Variation and Change* 23: 139-162.
- Hayward, K. (2000). *Experimental Phonetics*. London, UK: Pearson Education.
- Hidalgo, M. (1990). Sobre las variantes de /s/ en Mazatlán, Sinaloa. *Hispania* 73(2): 526-529.
- Hoffman, M. (2001). Salvadoran Spanish /s/ Aspiration in a Bilingual Context. *University of Pennsylvania Working Papers in Linguistics* 7(3): 115-127.
- Hualde, J. (2005). *The sounds of Spanish*. Cambridge, UK: Cambridge University Press.
- Humes, K., Jones, N., & Ramírez, R. (2011). *Overview of Race and Hispanic Origin: 2010*. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf>
- Jongman, A., Wayland, R., & Wong, S. (2000). Acoustic characteristics of English fricatives. *Journal of the Acoustical Society of America* 108(3): 1252-1263.
- Kendall, T. (2009). *Speech Rate, Pause, and Linguistic Variation: An Examination Through the Sociolinguistic Archive and Analysis Project* (Unpublished doctoral dissertation). Duke University, Durham, NC.
- Labov, W. (1963). The social motivation of a sound change. *Word* 18: 1-42.
- Labov, W. (1972). *Sociolinguistic patterns*. Philadelphia, PA: University of Pennsylvania Press.
- Labov, W. (2006). *The Social Stratification of English in New York City* (2<sup>nd</sup> ed.). Cambridge, UK: Cambridge University Press.



- Ladefoged, P. (2001). *Vowels and Consonants: An Introduction to the Sounds of Language*. Malden, MA: Blackwell.
- Ladefoged, P. & Johnson, K. (2011). *A Course in Phonetics (6<sup>th</sup> ed.)*. Boston, MA: Thomson Wadsworth.
- Lipski, J. (1985). /s/ in Central American Spanish. *Hispania* 68(1): 143-149.
- Lipski, J. (1986a). Reduction of Spanish Word Final /s/ and /n/. *Canadian Journal of Linguistics* 31: 139-156.
- Lipski, J. (1986b). Instability and Reduction of /s/ in the Spanish of Honduras. *Revista Canadiense de Estudios Hispánicos* 11: 27-47.
- Lipski, J. (1999). The Many Faces of Spanish /s/-Weakening: (Re)Alignment and Ambisyllabicity. In J. Gutiérrez-Rexach & F. Martínez-Gil (Eds.), *Advances in Hispanic Linguistics* (198-213). Somerville, MA: Cascadilla Press.
- Lopez Chavez, J. (1977). El fonema /s/ en el habla de La Cruz, Sinaloa. *Nueva Revista de Filología Hispánica* 26: 332-340.
- Mason, K. (1994). *Comerse las eses: A selective bibliographic survey of /s/ aspiration and deletion in dialects of Spanish* (Unpublished doctoral dissertation). University of Michigan, Ann Arbor, MI.
- Melia, M. (2005, February 3). American Spanish? U.S. Network Coaches Performers From Latin America To Speak With "Neutral" Accents. *Puerto Rico Herald*. Retrieved from <http://www.puertorico-herald.org/issues2/2005/vol09n20/AmSpan.html>
- Mendoza-Denton, N. & Gordon, B. (2011). Language and Social Meaning in Bilingual Mexico and the United States. In M. Díaz-Campos (Ed.), *The Handbook of Hispanic Sociolinguistics* (553-578). Malden, MA: Blackwell.
- Poplack, S. (1980). The notion of the plural in Puerto Rican Spanish: Competing constraints on (s) deletion. In W. Labov (Ed.), *Locating Language in Time and Space* (55-67). New York, NY: Academic Press.
- Preston, D. (1999). A language attitude approach to the perception of regional variety. In D. Preston (Ed.), *Handbook of perceptual dialectology* (359-373). Amsterdam, Netherlands: Benjamins.
- Radio Isla (2011, March 22). Voz Primera con Benny Frankie: Lic. Gerardo Carlo-Altieri y el Congresista Luis Gutiérrez 5 [Video file]. Retrieved from <https://www.youtube.com/watch?v=zJ86CEA1nUQ>

- Ranson, D. (1993). The Interaction of Linguistic and Contextual Number Markers in Andalusian Spanish. *Hispania* 76(4): 919-930.
- Ryan, C. (2013). *Language Use in the United States: 2011*. Retrieved from <http://www.census.gov/prod/2013pubs/acs-22.pdf>
- Santa Ana, O. (2002). *Brown Tide Rising: Metaphors of Latinos in Contemporary American Public Discourse*. Austin, TX: University of Texas Press.
- Schilling-Estes, N. (1998). Investigating “self-conscious” speech: The performance register in Ocracoke English. *Language in Society* 27: 53-83.
- Su, R. (2010). The overlooked significance of Arizona’s new immigration law. *Michigan Law Review First Impressions* 108: 76-79.
- Spady, J., Lee, C., & Alim, H. (1999). *Street Conscious Rap*. Philadelphia, PA: Black History Museum/Umum Loh Publishers.
- Sweet, L. (2011, July 26). Rep. Luis Gutiérrez arrested outside of White House. *Chicago Sun-Times*. Retrieved from [http://blogs.suntimes.com/sweet/2011/07/rep\\_luis\\_gutierrez\\_arrested.html](http://blogs.suntimes.com/sweet/2011/07/rep_luis_gutierrez_arrested.html)
- Terrell, T. (1977). Constraints on the aspiration and deletion of final /s/ in Cuban and Puerto Rican Spanish. *The Bilingual Review* 4: 35-51.
- Terrell, T. (1979). Final /s/ in Cuban Spanish. *Hispania* 62(4): 599-612.
- Terrell, T. & Tranel, B. (1978). Parallelism between liaison in French and aspiration and deletion in Spanish dialects. *Montreal Working Papers in Linguistics* 10: 31-50.
- Thomas, E. (2011). *Sociophonetics: An Introduction*. Basingstoke, UK: Palgrave Macmillan.
- Torres, L. (1997). *Puerto Rican discourse: a sociolinguistic study of a New York suburb*. Mahwah, NJ: L. Erlbaum Associates.
- United States Census Bureau. (2012). *Current Population Survey, Annual Social and Economic Supplement, 2011 [Table 7] [Data file]*. Retrieved from <http://www.census.gov/population/hispanic/files/2011/CPS-2011-table07.xls>
- Univisión. (2011, October 30). Al Punto: Congresista Luis Gutiérrez enfurecido con la HB 56 [Video file]. Retrieved from <http://www.youtube.com/watch?v=XkG0k60mZwo>
- van Dijk, T. (1992). Text, talk, elites, and racism. *Social Discourse* 4(1/2): 37-62.

Weinreich, U., Labov, W., & Herzog, M. (1968). Empirical foundations for a theory of language change. In W. Lehmann & Y. Malkiel (Eds.), *Directions for Historical Linguistics* (97-195). Austin, TX: University of Texas Press.

Widdison, K. (1991). *The phonetic basis for s-aspiration in Spanish* (Unpublished doctoral dissertation). University of California, Berkeley, CA.