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# Stressed Syllables in Argentine Spanish in Queens, NYC: Lengthening and F0 Early Peak Alignment

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Stressed Syllables in Argentine Spanish in Queens, NYC:  
Lengthening and F<sub>0</sub> Early Peak Alignment

Giselle Gimenez Meiling

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Master of Arts

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## ABSTRACT

### Stressed Syllables in Argentine Spanish in Queens, NYC: Lengthening and $F_0$ Early Peak Alignment

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This thesis investigates the intonation of Argentine Spanish in Queens, NYC, with the goal of verifying if the unique prosody of producing early peak alignments in the  $F_0$  of Argentine Spanish, specifically of Porteños (those from Buenos Aires), is maintained among the intense contact influences with other varieties of Spanish in the area. Previous studies have reported this early peak alignment phenomenon in the Spanish spoken in Buenos Aires, and this paper strives to see if this still occurs among Argentine Spanish speakers in New York City. The Buenos Aires speakers were compared with other native Argentine Spanish speakers in New York City who originated from provinces other than Buenos Aires (primarily from Mendoza) to verify if the dialectal varieties of Argentine Spanish had remained the same under the intense language contact situation of living in Queens.

The data in the current study are from interviews recorded during the summer of 2014 in the Queens, NYC neighborhood of Elmhurst. Acoustic information obtained includes total syllable duration,  $F_0$  measurements, and  $F_0$  patterns. Additional linguistic variables included vowel type and vowel syllable position within a word. Extralinguistic variables included speaker sex, age, origin in Argentina, educational level, number of years in NYC, and number of years in Argentina.

Results indicate that early peak alignment does indeed occur among Argentine speakers in Queens, NYC; however, it is interesting to note that it not only occurs in the informants from Buenos Aires as predicted, but in the informants from outside Buenos Aires as well. This suggests that the Outside Buenos Aires speakers are undergoing prosodic dialectal leveling with their pitch accent patterns and an increase in stressed syllable duration as occur naturally among the Buenos Aires speakers.

Keywords: Spanish, phonetics, vowel lengthening,  $F_0$  peaks, early peak alignment, Argentina, Argentines, New York City Spanish, dialectal leveling, acoustic analysis, Praat, Queens, NYC, stressed syllables, Spanish in the United States

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## **CHAPTER 1**

### **Introduction**

#### **Statement of the Problem**

While known for its numerous tourist attractions and night life, New York City is a rich source for linguistic studies. As Sam Roberts explained, “some experts believe New York is home to as many as 800 languages — far more than the 176 spoken by students in the city’s public schools or the 138 that residents of Queens, New York’s most diverse borough, listed on their 2000 census forms” (Roberts, 2010, p. 1). According to the 2000 census, 27.9% of the residents of Queens are Hispanic, all speaking different dialects of the Spanish language (United States Census Bureau, 2000a, 2000b). It is important to note that over 17% of the 27.9% of the Hispanic residents claim ethnicities other than Mexican, Puerto Rican, or Cuban (United States Census Bureau, 2000a, 200b). Part of the 17% includes those 13,788 from Argentina who have made a home in Queens.

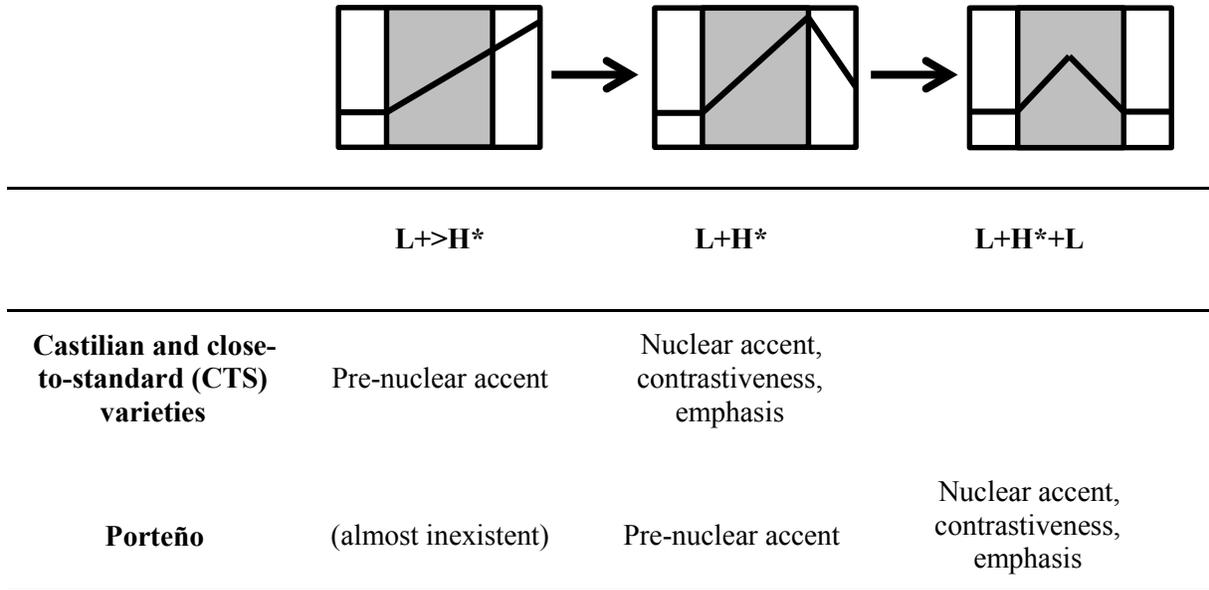
With so many varieties of languages to study in NYC, linguists are given an environment ripe for research. “New York City (NYC) is one of the largest urban settings in the world where Spanish is under strong language-contact and dialectal-leveling pressures. Consequently, the city provides an ideal language laboratory...” (Otheguy & Zentella, 2012, p. xiiv). However, the majority of the research on the Spanish spoken in New York City thus far has focused on sociolinguistic parameters of the dialects from Colombia, the Dominican Republic, Ecuador, Mexico, Puerto Rico, and Cuba (Otheguy & Zentella, 2012; Lamboy, 2004; Teschner, 1975). There appears to be a gap in the research in regard to the study of the Spanish from Argentina found in New York City, which should not be ignored.

Argentine Spanish has been recognized for its unique prosody, which has been associated with the lengthening of stressed-vowels and a shortening of the  $F_0$  rise so that the peak is reached within the stressed syllable, which creates an early peak alignment (Colantoni & Gurlekian, 2004a, 2004b; Estebas-Vilaplana, 2010; Feldhausen, Gabriel, & Pešková, 2010; Gabriel, 2011; Gabriel et al., 2010; Gurlekian, Torres, & Colantoni, 2004; Kaisse, 2001; Sosa, 1999; Toledo, 2000). This unique prosody is famously described by Vidal de Battini (1964), who stated, “Buenos Aires habla con entonación italiana” (p. 144).

### **Purpose of the Study**

This research is driven by the fact that, while many studies have been done on Buenos Aires speakers in Buenos Aires, no studies have been conducted on the retention of Argentine intonation outside of Buenos Aires. Previous studies have discovered the consistent pattern that Castilian Spanish and Close-to-Standard (CTS) varieties of Spanish (the educated speech of each country; Gabriel et al., 2010; Hualde, 2002) produce an  $L+\gt H^*$  pitch accent (a type of “a prominence or emphasis given to a word or syllable by its difference in pitch from its immediate surroundings” OED, 2015) for a pre-nuclear accent (a phrase non-final stressed syllable), but an  $L+H^*$  pitch accent for nuclear accents (a phrase final stressed syllable), contrastiveness, and emphasis. On the other hand, Buenos Aires Spanish (Porteño) has been consistent in  $L+H^*$  pitch accents for pre-nuclear accents and  $L+H^*+L$  pitch accents for nuclear accents, contrastiveness, and emphasis. The Spanish spoken in other areas of Argentina is believed to follow the pattern of Castilian/CTS varieties. (Refer to Figure 1.1 for the schematics of the different pitch accents discussed.) This study aims to analyze the stressed syllables/vowels of declarative statements produced by Porteño speakers and Argentine non-Buenos Aires speakers in New York City to

verify if the results found in previous studies in Argentina still apply to Argentines in New York City.



**Figure 1.1** Summary of Porteño vs. Castilian Spanish Pitch Accents.

The grey space is the stressed syllable, where the vertical black lines are the stressed syllables' boundaries (beginning and end). The white sections show the time before and after the stressed syllable (either part of the word or a pause). The line that moves through all three sections represents the intonation pattern produced in each of the situations.

(Adapted from Gabriel, 2011, p. 10)

## Study Overview

This quantitative thesis analyzed the audio-recorded interviews of 12 Argentine speakers living in Queens, NYC during the summer of 2014. Six speakers were from Buenos Aires and six speakers were from other provinces in Argentina. Four females and eight males were interviewed. Each of these interviews was conducted in an informal fashion, in the form of a conversation, while in Argentine restaurants or bakeries in Queens. Interviews were conducted over the period of two months. The data collected were analyzed for pitch accent patterns, number of occurrences, and vowel lengthening patterns.

## Research Questions

The questions guiding this study are as follows:

1. Is there lengthening of the stressed syllables and an early peak alignment in the  $F_0$  of Argentine Spanish speakers in Queens, NYC and how do these  $F_0$  patterns compare with those previously found in studies of Buenos Aires intonation?
2. If lengthening occurs, does this lengthening of the syllable and/or the intonation-change correlate to the vowel phoneme, position of the stressed vowel in the phrase, or syllabic structure?
3. If a change in lengthening is observed, does it correlate to the age, gender, or origin of the participant?

## CHAPTER 2

### Review of the Literature

The purpose of this project, as stated before, is to analyze the lengthening of stressed vowels and pitch accents of the Argentine Spanish in Queens, NYC. This review of the literature will discuss the following areas: Vowel length studies of Spanish, Intonational studies on Argentine Spanish, Spanish in NYC, and Argentines and their establishments in Queens.

#### Vowel Length Studies of Spanish

There have been more studies on the syllable than on the vowel; therefore, that is where this review begins. These studies first began with the focus on duration of the syllable. Navarro Tomás (1916, 1917, and 1918) measured the absolute durations of both individual segments in word lists and of syllables in a passage from a poem by Rubén Darío. Ensuing in 1922, Navarro Tomás included three observations on language production for the lengthening of vowels:

- larga toda vocal acentuada ante consonante sencilla seguida de otra vocal;
- breve toda vocal acentuada seguida de dos o más consonantes;
- breve asimismo toda vocal no acentuada (Navarro Tomás, 1974, p. 199).

Navarro Tomás (1926) added that “in fact a final unaccented vowel may be often not only as long as, but even longer than, an accented vowel” (p. 16).

In Delattre’s (1966) article, he explained that through the analysis of five minutes of spontaneous native speech, he had come to the conclusion that closed syllables are longer in duration than open syllables except when looking at syllables in an unstressed non-final position. Quilis and Fernández (1966) mentioned that all vowels of Spanish should be considered as short vowels in comparison to other languages, such as English. “Para dar realce a una sílaba o a un sonido el acento dispone de tres elementos: 1º) la intensidad, 2º) el tono o altura musical, 3º) la

duración [of a syllable, possibly influenced by the duration of the vowel within]” (Quilis & Fernández, 1966, p. 127). They supported Gili Gaya (1940) in the observation that Spanish is governed by the syllable instead of stress: “El español... tiene un ritmo silábicamente acompasado: la sílaba es la que marca el compás” (p. 134).

Hála (1973) explained that duration can be affected by two things: “bien por la cesación de la vibración de las cuerdas vocales, bien por una nueva estrechez” (p. 50). Also, Hála explained the possible reason for the lengthening of a vowel’s duration: “En el caso en que el impulso que provocase la reacción fónica fuese bastante intenso, la emisión de la voz se hacía más larga o sería repetida continuamente varias veces...” (p. 50).

Pointon (1980) in his article, “Is Spanish really Syllable-timed?”, gave an extensive overview of the state of the debate of whether Spanish is syllable-timed or stressed-timed. In his article, he pointed out what he saw as flaws in many of the previous works discussed in this paper. The first issue that Pointon (1980) mentioned is one from Delattre’s (1966) article. Pointon explained that Delattre did not disclose the origins of his informants and “it is possible that speakers with different accents also have different durational features” (p. 296). Pointon also denoted that the differences in results may be due to the medium used, “since Gili Gaya [1940] recorded a person reading a literary text, and both Delattre [1966] and Olsen [1972] used extemporaneous speech, the reading style may also be expected to lead to a slower tempo, and greater durations for each syllable” (1980, pp. 297-298). However, the relative duration differences produced between the different reading styles were not taken into account. Regardless of their speed, if the syllable durations were relative within their own style then the duration increase would not be significant. In the end, Pointon (1980) finally explained his most probable solution to the debate, that “not only the stress, but also the number of segments per

syllable and the nature of the consonant(s) in the syllable play a part in determining its duration” (p. 300).

Barrutia and Terrell (1982) agreed with Quilis and Fernández (1966) in their phonetic text that all Spanish vowels have the same short duration in comparison to other languages. “Por supuesto hay ocasiones en las que prolongamos más la vocal de alguna palabra que queremos enfatizar; sin embargo, por lo general las vocales del español son relativamente cortas” (p. 15). However, Clegg and Fails (1987) discovered that syllable duration is not the same and is affected by stress and position, thereby showing that Spanish is not strictly syllable-timed. In a statistical study by van Santen (1992), he found that eight factors greatly affect vowel duration in spoken sentences: the vowel itself, syllabic stress, pitch accent, the identity of pre-vocalic consonants, the identity of post-vocalic consonants, the number of subsequent syllables/segments within a word, and word position within an utterance. (p. 2443)

Further work on the duration of vowels was done by Rosner and Pickering (1994) in which they explained that “because the jaw is a sluggish articulator, close vowels, whether long or short, tend to be briefer than open vowels” (p. 192), which verifies the work done by Delattre (1966). Another study completed by D’Introno, Del Teso, and Weston (1995), declared that “las sílabas tónicas son regularmente más largas que las breves, por lo que la energía total tiende a ser mayor” (p. 129). They also pointed out that the duration of the vowel can be variable depending on speed of the articulators and the length of utterances (p. 129). To this day there continue to be differing opinions in relation to vowel and syllable lengthening and duration.

### **Intonation Studies on Argentine Spanish**

Before discussing, in the subsequent sections, the intonational studies which have developed in the last 15 years, I will mention, in this section, the first pieces of evidence which

highlight the prosodic change in Buenos Aires. Cristoph Gabriel (2011) cites as the first piece of non-linguistic evidence of a prosodic change was observed by Borges (1944) in his book *Ficciones*: “Recuerdo claramente su voz; la voz pausada, resentida y nasal del orillero antiguo, *sin los silbidos italianos de ahora* [emphasis added]” (p. 123). The first piece of linguistic evidence for a change in Buenos Aires prosody was provided by Vidal de Battini (1964). In her book, *El español de la Argentina*, she explained that “ya es común que los extranjeros comenten como algo sabido que Buenos Aires *habla con entonación italiana* [emphasis added]” (p. 144). Interestingly enough, both pieces of textual evidence mention the infiltration of Italian intonation. This is the basis for the phonetic/phonological analysis of Argentine Spanish which still occurs to this day.

**Italian influence in Argentina.** The Italian influence on Buenos Aires’ prosody developed through contact with the vast amounts of immigrants that came to Argentina from 1860–1920. The flood of immigrants included more than 3.5 million Italians, up to 60% of all the immigrants that came to Argentina. These Italians, generally coming from the central and southern parts of Italy, stayed in Buenos Aires and comprised a third of its population (Lipski, 2004). Gabriel and Kireva (2014) explained that “a remarkable result of a contact scenario that involved the learning of a foreign language by immigrants is Porteño, a variety of Spanish spoken in the Argentinean capital of Buenos Aires that is generally characterized as being ‘Italianized’ due to massive streams of immigration between the 1860s and the beginning of the 20th century” (p. 258). Because of the contact which occurred, many prosodic differences were also noticed, as explained by Colantoni and Gurlekian (2004a):

These differences [in intonational patterns], which seem realizational in nature (Ladd, 1996), deserve explanation, especially since historical evidence (Vidal de Battini, 1964)

indicates that the characteristics that we now observe were not the intonational patterns in the nineteenth century. Then, Buenos Aires intonation did not differ substantially from Peninsular Spanish, probably most closely resembling Andalusian. Vidal de Battini (1964) suggests two hypotheses to explain the changes. She notices that early in the twentieth century two new intonations were replacing the old one: the TONADA LUNFARDA ‘Lunfardo intonation’ ... and the TONADA ITALIANA ‘Italian intonation’. (p. 108)

These Italian immigrants helped develop these subdialects among the lower classes of Buenos Aires: *el porteño* and *el lunfardo*.

*El porteño* was known for its lexical influence and unique intonation. For example, in Buenos Aires the verb *laburo* comes from the Italian verb *lavoro*, which means “to work.” Another common example is the verb *manyar*, which comes from the Italian verb *mangiare*, meaning “to eat” (Gabriel, 2011). *El porteño* is still used today and has spread down the coastal region, “generally perceived as the Argentinean Spanish *par excellence*” (Gabriel, 2011, p. 3). The unique prosody of *el porteño* will be discussed in a later section.

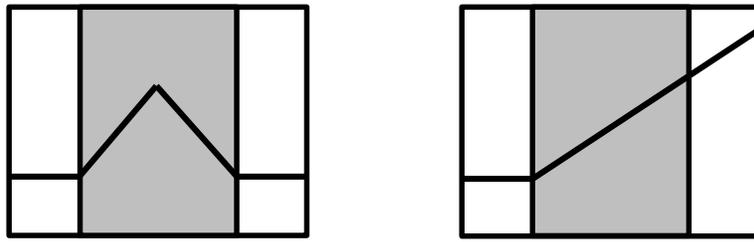
The other influential dialect, *el lunfardo*, greatly affected the emphatic contours and lexicon. “Those contours were originally used by gang members and criminals, and spread to other social groups” (Colantoni & Gurlekian, 2004b, p. 1). There are many evidences of lexical borrowing in *el lunfardo*. “[Ellos] han transmitido italianismos de todo tipo... que... se han ido difundiendo en *el lunfardo* y de aquí se han mezclado primero con el lenguaje popular, hasta alcanzar el de los estratos sociales superiores” (Zilio & Rossi, 1970, p. XII). Many words from this subdialect are still used today, such as *pibe*, which means “kid/child/youth” and comes from the Italian word *pivello*, meaning child. Another example is *salame*, which means “an idiot/a

dumb man” and comes from the Genoese (from Genoa, Italy) word *salamme* (Conde, 2004). As can be seen, “the linguistic situation in Buenos Aires was determined by multilingualism and especially by Spanish-Italian bilingualism for a long time” (Feldhausen, Gabriel, & Pešková, 2010a).

However, as was previously mentioned, Italian not only affected the aspect of lexicon within the Buenos Aires dialect. The next section will discuss the change in peak alignments found among Buenos Aires speakers due to the Italian influence using the Autosegmental-Metrical (AM) Model of Intonational Phonology.

**Overview: Autosegmental-Metrical (AM) model of intonational phonology.** There have been many autosegmental studies analyzing Spanish broad focus declaratives and their peak alignments (Beckman, Díaz-Campos, McGory, & Morgan, 2002; Estebas-Vilaplana, 2007; Face, 2001, 2002; Hualde, 2002; Sosa, 1999) since the development of the Autosegmental-Metrical (AM) Model of Intonational Phonology (Beckman & Pierrehumbert, 1986; Ladd, 1996). Following this original development, an Autosegmental-Metrical-based transcription system was created in 1999, based out of the Ohio State University: Tones and Break Indices (ToBI). This was used as a general framework which could then be adapted to any language in order to transcribe the prosodic structure in a clear and concise manner. The notation of this transcription system describes the shape of the F0 contour pattern within a stressed syllable. The L means the pitch at that point in the intonation pattern was relatively low, while the H means it was relatively high. The star shows at what point in the pattern the peak occurred. The + signs adds together the contours which appeared within one syllable. The > sign show an unrealized peak in the syllable, signifying a late peak alignment.

In 2002, Beckman, Díaz-Campos, McGory, and Morgan proposed an application of the ToBI system to Spanish, thereby creating Spanish ToBI (Sp\_ToBI). This system was then further applied to the analysis of varieties of Spanish and their prosodic patterns. There have been several studies completed using Sp\_ToBI transcription system which confirm an early F0 peak alignment for pre-nuclear pitch accents in broad focus declaratives in Buenos Aires Spanish in comparison to most varieties of Spanish which contain a late peak alignment (Colantoni & Gurlekian, 2004a, 2004b; Estebas-Vilaplana, 2010; Feldhausen et al., 2010; Gabriel, 2011; Gabriel et al., 2010; Gurlekian et al., 2004; Kaisse, 2001; Sosa, 1999; Toledo, 2000). Specifically, there have been two proposed variations of the Sp\_ToBI model in the application to Buenos Aires Spanish. The first proposal was created in 2004 by Gurlekian et al. and was called ToBI-A(mpliado). The second proposal was created in 2010 by Gabriel et al. and was called Sp\_ToBI for Porteño Spanish. This latter proposal is the transcription system on which this project is based. The inventory of nuclear and pre-nuclear pitch configurations used can be found in Appendix A. The previously mentioned difference between early and late F0 peak alignments is exemplified in Figure 2.1. In this paper, an early peak alignment is considered to be an intonational peak or pitch accent that is located within the stressed syllable, while a late peak alignment is considered to be an intonational peak or pitch accent that is reached either at the end boundary of the stressed syllable or after the stressed syllable has been completed.



**Figure 2.1.** A Comparison of an Early Peak Alignment (L) vs. a Late Peak Alignment (R). The grey space is the stressed syllable. The left figure is an early peak alignment common in Buenos Aires: L+H\*+L. The right figure is a late peak alignment: L+>H\*.

There have also been several autosegmental studies on Italian peak alignments. In fact, research on Italian intonation shows that pre-nuclear accents contain peaks within the stressed syllable (Ladd, 1996). In 2004, McMahon proposed the connection for the unique “Italianized” prosody of Buenos Aires. He believed that the Buenos Aires prosody was a result of L1 (Italian) influence on the L2 (Spanish) by the Italian immigrants through the acquisition process.

In 2010, Gabriel et al. mentioned that two of the biggest factors in creating the difference between the Spanish spoken in Buenos Aires and other varieties of Spanish include contact with Italian intonation and duration patterns (p. 287). While there is much evidence supporting the belief that Spanish became “Italianized” in Buenos Aires due to the immigrant-dialect contact, it is important to remember that there are no recordings or linguistic descriptions written at the turn of the 19<sup>th</sup>/20<sup>th</sup> century describing the intonational system of the Spanish spoken in Buenos Aires or the Italian dialects (Gabriel, 2011); therefore, it is very difficult to know for sure the exact change.

Nevertheless, the obvious differences in intonation between *porteño* and Peninsular Spanish, as well as the tendency of the former variety to pattern with Italian rather than with other Spanish dialects, suggest that the historical situation in the capital of Buenos Aires (Spanish/Italian contact and bilingualism) has left at least some marks on today’s

*porteño* prosody. In addition to the shape of pitch accents, phrasing decisions and boundary realizations also seem to offer some indications of this influence. (Feldhausen, Gabriel & Pešková, 2010, p. 4)

Therefore, it is valid to conclude that the Italian contact in Buenos Aires at the turn of the 20<sup>th</sup> century has had and still has an effect on the Spanish spoken there, differentiating it from all other Spanish varieties through its unique prosody.

It is important to mention that this is not the only case of intonational transfer that has been noted with Spanish. Several studies that have looked at this concept include: Gorka Elordieta's work on Spanish and Basque (2006), Magdalena Romera and Gorka Elordieta's work on Spanish and Catalán (2013), and Erin O'Rourke's work on Andean Spanish in contact with Quechua (2010).

### **Spanish in New York City**

According to Otheguy and Zentella (2012), "people of Latin American origin constitute New York City's largest minority, and Spanish is the most widely spoken language in the city after English. ... If undocumented residents are included, Latinos may well account for a third of the city's population" (p. 3). Anyone who spends a day in New York City (NYC) will be immersed in the Spanish language through everything from signs in businesses to billboards to taxi advertisements to radio talk shows to the surrounding talk on the street. Spanish in many parts of NYC has become part of its identity for several generations of speakers. Thanks to a study by Zentella (1997), it is recognized that Spanish is spoken and understood natively by the majority of Latinos in New York City, as found in Otheguy and Zentella's book *Spanish in New York* (2012):

Furthermore, based on the experience of one community of Puerto Ricans, part of the city's largest and longest-settled group of Spanish speakers, we can also assume that more than 80 percent of second-generation Latinos (the U.S.-born children of the immigrants) who live in Latino *barrios* speak Spanish habitually, that all of them have native control of Spanish phonology, and that approximately half of them have native mastery of Spanish grammar and lexicon. (p. 4)

Therefore, through the native-like acquisition of Spanish by second-generation speakers, Spanish becomes a part of the daily life of New York City.

It is essential to understand that Spanish in New York City has primarily been studied sociolinguistically, leaving a large academic gap for phonetic/phonological studies.

Unfortunately, another academic gap is created since most of the studies focus primarily on the large groups of Caribbean and Central American Latinos in NYC, leaving out groups such as Argentines and Chileans (Otheguy & Zentella, 2012; Bills, 2005; Flores-Ferrán, 2005; Toribio, 2005; Hart-González, 1985; Barrutia & Terrell, 1982; Teschner, 1975).

Within these sociolinguistic studies, the two most commonly studied facets are attitude and cultural identity. Attinasi (1985) expressed that “a goal of continued attitude study has been to determine whether Hispanic attitudes in New York [City] are different from those in cities of smaller size...” (p. 28). As linguists study the attitudes of these Spanish speakers, they noticed that attitudes could be divided into three key areas: “language, identity and education” (Attinasi, 1985, p. 27). Spanish in New York City also brings about a strong sense of cultural identity and nationality. Attinasi (1985) explained that “national definition, like any other, has two main facets: (a) being distinct from similar entities, and (b) having a positive substance or set of characteristics to constitute the uniqueness of the group” (p. 36). As such, Hispanics in New

York City align themselves with a sense of national identity to their place of origin. However, Otheguy and Zentella (2012) commented that the “passage of time and the new generations in contact with each other in New York [City] are giving rise to a speech community that is linguistically much more close-knit in the city than it ever was in the Latin American homelands” (p. 219). Many Hispanics are seeing the Spanish language as their differentiating and uniting factor from English-speakers.

“Many people voice and subscribe to melting-pot ideologies in the industrial North, in ways that New Yorkers would not, whether white, black or Hispanic” (Attinasi, 1985, p. 54). New Yorkers simply have gained the attitude that they do not need to change the way they do things (brought from their country of origin) and they have the right to continue on. These attitudes are especially apparent in the Hispanic communities of New York City.

Along with these attitudes, aspects that can and will affect the way in which people talk include gender, age of arrival in NYC, national and regional origin (similar to what has already been discussed in regards to cultural identity), years in NYC, social class, years of education, amount of Spanish use, and English skills (Otheguy & Zentella, 2012).

### **Argentines in Queens, NYC and Their Establishments**

Most people when migrating to a new country try and relocate nearby those with whom they can identify culturally. It can be noted that many Hispanics have migrated to Queens, making up 1/3 of the population in the borough. In fact, 13,788 Argentines have migrated to the neighborhoods of Queens, specifically to Jackson Heights and Elmhurst.

Among the Argentines in Queens, NYC, there are two popular, commonly frequented, Argentine restaurants: *El Gauchito* and *Boca Juniors Restaurant*. There are also two popular Argentine bakeries: *Buenos Aires Bakery* and *Río de la Plata Panadería y Confitería*. The

*Buenos Aires Bakery*, which is also known to the locals as “B’Aires,” is located in Jackson Heights, Queens. Meanwhile, the *Río de la Plata Panadería y Confitería* is located in Elmhurst, Queens, "EN PLENO CORAZON [*sic*] DEL BARRIO ARGENTINO EN QUEENS" (Río de la Plata Panadería). This bakery is, as its slogan says, in the heart of the Argentine sector of Queens.

Also located in the heart of the Elmhurst Argentine neighborhood is the restaurant and butcher shop *El Gauchito*, founded in 1987. “Hoy El Gauchito, además de ser la carnicería argentina más antigua y completa de Queens, es un restaurante que ofrece la auténtica comida argentina para disfrutarla en familia o con amigos en sus dos salones, el tradicional y el moderno” (Civelli & Civelli, para 5). The *Boca Juniors Restaurant*, founded in 2004, is also located in Elmhurst, Queens. It is known as a “pequeño Bombonera, refiriéndose al estadio del Boca Juniors ‘La Bombonera’” (Boca Juniors Restaurant, para 3).

## **Conclusions**

Otheguy and Zentella expressed the value of studying the Spanish of NYC best when they said, “Spanish in New York [City], then, represents a balance of continuity and change that Latinos live with on a daily basis and that is one of the Latino communities’ greatest contributions to one of the greatest cities in the world” (Otheguy & Zentella, 2012, p. 220). The Spanish of New York City is unique, and yet it may still help linguists better understand the prosodic situation of Argentines in Queens.

## CHAPTER 3

### Methodology

#### Participants

The participants in this study consisted of 12 informants: eight males and four females. The speakers represented two age groups: first age group 36–54 years old and second age group 55+ years old. I completed the recordings with six informants from Buenos Aires and six informants from areas outside of Buenos Aires. The informants from Buenos Aires will be referred to as the Buenos Aires group (BA). The informants from an Argentine province outside of Buenos Aires will be referred to as the Outside Buenos Aires group (OBA). A summary of the participants' background information can be found in Table 3.1.

Speaker	Group	Age Groups	Gender	Place of Origin
1	BA	55+	F	Buenos Aires
2	BA	55+	M	Buenos Aires
3	OBA	55+	F	Mendoza
4	BA	55+	M	Buenos Aires
5	BA	55+	M	Buenos Aires
6	OBA	55+	M	San Juan
7	OBA	35–54	M	Mendoza
8	OBA	35–54	M	Mendoza
9	OBA	35–54	F	Mendoza
10	OBA	35–54	F	Mendoza
11	BA	35–54	M	Buenos Aires
12	BA	55+	M	Buenos Aires

**Table 3.1.** Summary of Participants

The participants were recruited through three primary methods: previous contact, word of mouth (referrals), and random contact in the restaurants/bakery. The most effective way of finding informants was through previous contact and referrals, since it helped reduce their anxiety levels of being interviewed and recorded. The informants that participated did so of their own free will and did not receive anything in exchange for their assistance in this study.

## Procedure

**Data gathering.** In order to achieve the most natural speech from the informants, I interviewed them in the form of a casual conversation on topics with which they were already familiar. Instead of trying to gain information through a formal written questionnaire, during these conversations I gathered background information, such as their gender, age and place of origin within Argentina, through questions asked during the conversation. I also strove to take note of their educational level, along with how long they had resided in Argentina before coming to the United States, and how long they have been currently living in the United States. An example of sample modules and questions that were used is included in Appendix B.

In order to collect the data, I went into Queens more than ten times over the course of two months. I conducted the interviews at the local Argentine bakeries and restaurants: *Boca Juniors Restaurant*, the *Rio de la Plata Bakery*, and *El Gauchito* restaurant and butcher shop. Due to the environment of these locations, I anticipated there might be some ambient noise in the recordings during the interviews; however, I was still able to extract the needed acoustic information from the data collected while preserving informality of conversation and without losing quality.

**Instruments.** For the recordings, I used a digital linear PCM recorder: TASCAM DR-05. I recorded directly into the recorder's microphone without the assistance of any external microphone. Since the device contains two microphones traditionally used to gain surround sound, I covered one of the microphones with a dampener in order to make the input more directional and gain a clearer recording. I held the directed microphone about six inches from the participants' mouths while they spoke. The interviews were exported as \*.WAV files, which were used in the analysis. I was able to record anywhere from 5–25 minutes from each person. Because there was such variance among the lengths of time (several of the informants were a bit

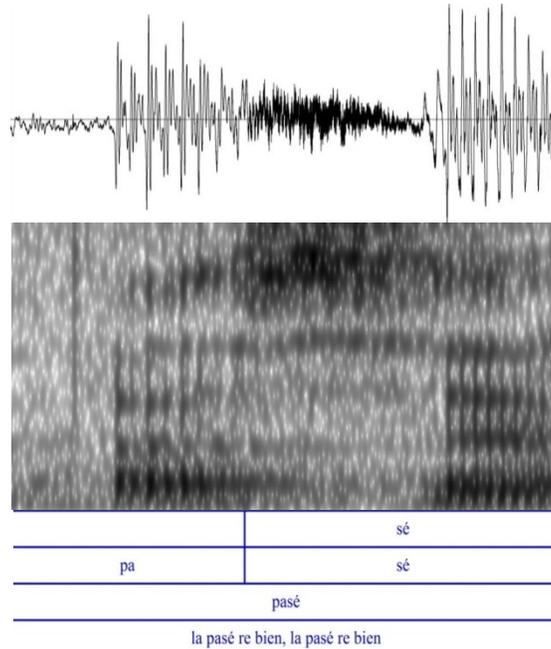
reluctant to talk), I chose the third minute (seconds 180–240) of speech for data analysis. In this manner, each person would be subject to the same environment: amount of time into the conversation and time to relax during the recording. Collectively I recorded 125 minutes worth of interviews.

## **Data Analysis**

**Overview.** From the 125 minutes recorded, 12 minutes (one minute per person) were analyzed. The analysis focused on the non-diphthongized stressed syllables in declarative statements and specifically looked at duration, as the dependent variable, and how it was affected by the following independent variables: vowel phoneme (a, e, i, o, u), syllable structure (open vs. closed), origin (BA vs. OBA), and pitch accents (see Appendix A). Samples of non-stressed syllables were also analyzed with the same criteria in order to act as a control.

**Method.** Within the 12 minutes analyzed, each recorded syllable yielded one token for vowel/syllable measurements. Each .WAV file was imported into Praat (Boersma & Weenink, 2014), a speech signaling software, by means of which the files were then evaluated. By using the software, I marked and labeled all syllable boundaries in declarative statements. The marking and labeling consisted of four different tiers, factors that might affect the token's duration: phrase groups, words, syllables, and stressed syllables. In Praat, the F1 & F2 formants were measured at a midpoint of the token using a formant-checking script. All the vowel boundaries were then checked a second time. Examples of stressed and unstressed tokens can be seen in Figure 3.1. These stressed tokens were taken from stressed words, such as verbs, nouns, adjectives, adverbs, numbers, and tonic pronouns. Since this study focuses on declarative statements only, tokens were excluded if they were found in non-declarative statements within seconds 180–240 of the recording. Tokens were also excluded if they were diphthongized. In this

study, a diphthong is defined as a group of two consecutive vowels that form a single syllable (e.g. *Siempre*). An example of a diphthongized token can be seen in Figure 3.2.



**Figure 3.1.** Spectrogram of Unstressed /a/ and Stressed /e/ from BA Group.

After the syllables/vowels were measured, I added all the data to a Microsoft Excel spreadsheet where all the averages were determined. The characteristics recorded were syllable duration, syllable placement within the word (ultimate vs. penultimate vs. antepenultimate), syllable structure (open vs. closed), syllable nuclear position in the phrase (pre-nuclear vs nuclear), phrasal position (beginning vs. middle vs. end), Sp\_ToBI pattern, and formant values. Collectively, over 800 tokens were analyzed, creating a large data pool for this study. (see Appendix C).

The measurements also provided an overall average syllable duration per person per category: stressed syllable (not including diphthongs), and unstressed syllables. In addition, an average was determined per participant for each stressed vowel (a, e, i, o, u). An average was

also calculated per person per stressed vowel per the following Sp\_ToBI patterns: L+H\*, L+>H\*, and L+H\*+L. The Sp\_ToBI patterns used in this study came from Gabriel, Feldhausen, and Pešková's (2011) "Prosodic phrasing in Porteño Spanish" and Gabriel et al.'s (2010) "Argentinian Spanish Intonation." The authors' autosegmental system was proposed specifically for Argentine Spanish. The Sp\_ToBI transcription system used can be seen in Appendix A.

The individual averages in these measurement categories were then compared among all informants. Within the Sp\_ToBI category, averages were finally calculated based on age, gender, and origin groups (BA vs. OBA). All these categories were compared against the average duration of the unstressed syllables, acting as a control group, in order to see the effect of stress on a token's duration. This control group would help show if stress made a difference in the duration of a syllable for each type of pitch accent (found in Appendix A).

The data were finally submitted to a relative intercepts mixed-design analysis of variance using STATA statistics/data analysis software. This test accounted for the multiple variables, comparing their individual effects on duration and pitch accents. The probability level (p-level) for significance was set at  $p < 0.05$ .

## CHAPTER 4

### Results

#### Pitch Accents

The first analysis was an overview of the different pitch accents for each participant: number of occurrences and averages. These data were divided into two categories for comparison: the BA group and the OBA group. While all pitch accents were accounted for, in-depth analysis was reserved for the three pitch accents of interest: L+>H\*, L+H\*, L+H\*+L in both pre-nuclear and nuclear positions (refer to Figure 1.1.). In the in-depth analysis, it was discovered, as seen in Table 4.1., that the average duration of a syllable with either the early peak pitch accent (L+H\*+L) or (L+H\*) pitch accent for the BA group is significantly longer than the average unstressed syllable produced by the BA group ( $p < 0.001$ ), while all other syllables with the remaining pitch accents statistically have the same duration as the BA group unstressed syllable. Within the OBA group data, the duration of the syllable when it occurs with an early peak pitch accent (L+H\*+L) is also significantly longer than the unstressed syllable produced by the OBA group ( $p < 0.001$ ) while all other syllables with the remaining pitch accents statistically have the same duration as the OBA group unstressed syllable.

It is very characteristic of Buenos Aires speakers to produce the early peak alignment in nuclear positions. It appears that the BA group in NYC is producing this early peak alignment in both pre-nuclear and nuclear positions. However, as mentioned in a previous chapter, the speakers from outside Buenos Aires are expected to produce a Spanish variety that aligns with the Castilian/CTS varieties, therefore, not producing an early peak alignment. It would appear, however, that the OBA group is significantly producing this early peak alignment in both positions and according to the mean of syllable duration, the OBA group is adopting an increase in duration of syllables with an early peak alignment from the BA group.

Origin Group	Avg. Syl. Duration (ms)	Unstandardized Coefficient	Cases (n=)	p-value
<b>L+&gt;H*</b>				
BA	111	-0.027	6	ns
OBA	150	0.013	6	ns
<b>L+H*</b>				
BA	180	0.055	48	p < 0.001
OBA	156	0.031	48	ns
<b>L+H*+L</b>				
BA	235	0.095	76	p < 0.001
OBA	204	0.078	79	p < 0.001
<b>Unstressed (Control)</b>				
BA	128		56	
OBA	133		61	

**Table 4.1.** Summary of Pitch Accents for Both Origin Groups of Non-Diphthongized Stressed Syllables (Duration, Coefficients, Cases, p-values) Compared to Unstressed Syllables.

## Vowels

The second analysis was to collect the data for all vowels of non-diphthongized stressed syllables in order to see if the difference in vowel phonemes would affect the syllable duration. The duration of syllables contained the stressed vowel [e] were significantly shorter than those containing [a] ( $p < 0.05$ ), while all the other vowels statistically had the same duration as [a]. However, as seen in Table 4.2., the vowel of longest average duration in a stressed syllable is [o], followed by [a], [i], [u], and finally [e] as the vowel of shortest average duration, according to this study. Interestingly enough, while [a] and [o] had the longest average duration, [e] ended up having the shortest duration even though the vowels [a], [e], and [o] have the greatest oral opening. All the vowels measured had an average of 143 occurrences out of 12 speakers except [u], which had 38 occurrences out of 12 speakers.

Vowels	Avg. Syl. Duration (ms)	Unstandardized Coefficient	Cases (n=)	p-value
[a]	182		156	
[e]	157	-0.018	136	p < 0.05
[i]	174	-0.002	134	ns
[o]	198	0.012	146	ns
[u]	172	0.010	38	ns

**Table 4.2.** Summary of All Analyzed Non-Diphthongized Stressed Vowels (Duration, Coefficients, Cases, p-values) Compared to [a].

### Open vs. Closed Syllables

The third analysis was to verify the effect of an open vs. closed syllable on syllable duration. In agreement with previous studies already mentioned (refer to Chapter Two), these data show that many of the pitch accents with the closed stressed syllable had durations that were significantly longer than the open stressed syllables. The closed and open syllables that contained a L+H\*+L pitch accent were significantly longer than the unstressed syllables ( $p < 0.001$  for both).

Syllable Structure	Avg. Syl. Duration (ms)	Unstandardized Coefficient	Cases (n=)	p-value
<b>L+&gt;H*</b>				
Open	132	-0.008	9	ns
Closed	189	0.029	1	ns
<b>L+H*</b>				
Open	159	0.038	75	p < 0.01
Closed	170	0.047	16	ns
<b>L+H*+L</b>				
Open	200	0.074	98	p < 0.001
Closed	243	0.104	44	p < 0.001
<b>Unstressed (Control)</b>				
Open	128		92	
Closed	142		24	

**Table 4.3.** Summary of Pitch Accents for Syllable Structure of Non-Diphthongized Stressed Syllables (Duration, Coefficients, Cases, p-values) Compared to Unstressed Syllables.

### Pre-Nuclear vs. Nuclear Accents

The fourth analysis was to verify the effect of a pre-nuclear vs. nuclear accent on the duration of the non-diphthongized stressed syllable. These data can be seen in Table 4.3. It was determined that the duration of a syllable in nuclear phrasal position when it happens with the L+H\*+L pitch accent is significantly longer than the unstressed syllables ( $p < 0.001$ ), while all other nuclear syllables with the other pitch accents statistically were not significant. These data also show that the duration of pre-nuclear syllables with a L+H\*+L pitch accent or a L+H\* pitch accent is significantly longer than their unstressed counterparts. However, the nuclear syllable containing a L+H\*+L pitch accent produced a significantly longer duration than the L+H\*+L pitch accents in pre-nuclear syllables. This aligns with the findings of Ortega Llebaria and Prieto (2005) that there tends to be final lengthening. It is important to note that the L+H\*+L pitch

accent was produced in the pre-nuclear position almost as often as the nuclear position (70 vs. 85).

Phrasal Position	Avg. Syl. Duration (ms)	Unstandardized Coefficient	Cases (n=)	p-value
<b>L+&gt;H*</b>				
Pre-nuclear	129	-0.001	11	ns
Nuclear	136	0.005	1	ns
<b>L+H*</b>				
Pre-nuclear	161	0.038	75	p < 0.001
Nuclear	180	0.045	21	ns
<b>L+H*+L</b>				
Pre-nuclear	183	0.054	70	p < 0.001
Nuclear	237	0.104	85	p < 0.001
<b>Unstressed (Control)</b>				
Pre-nuclear	123		97	
Nuclear	145		20	

**Table 4.4.** Summary of Pitch Accents for Phrasal Position at Non-Diphthongized Stressed Syllables (Duration, Coefficients, Cases, p-values) Compared to Unstressed Syllables.

### Extralinguistic/Sociolinguistic Correlates

The final analysis was to determine if gender, age, and origin would affect the dependent variable of duration on the non-diphthongized stress vowels. According to the data, as seen in Table 4.4., there is a difference in duration based on gender for two of the key pitch accents. The duration for the syllables when it occurs with a L+>H\* pitch accent statistically have the same duration as the unstressed syllables for both females or males, respectively. The duration for the syllables when it occurs with a L+H\* pitch accent is significantly longer for females than the unstressed syllables produced by females (p < 0.01) while the syllables produced by males with this pitch accent also is significantly longer than the unstressed syllables produced by males (p < 0.05). The duration for the syllables when it occurs with a L+H\*+L pitch accent is

significantly longer for females than the unstressed syllables produced by females ( $p < 0.001$ ) while the syllables produced by males with this pitch accent are also significantly longer than the unstressed syllables produced by males ( $p < 0.001$ ). Among these participants it appears that the females produce a greater duration of their stressed syllables in both pitch accents, L+H\* and L+H\*+L, in comparison to the males.

Gender	Avg. Syl. Duration (ms)	Unstandardized Coefficient	Cases (n=)	p-value
<b>L+&gt;H*</b>				
Male	130	0.006	8	ns
Female	132	-0.004	5	ns
<b>L+H*</b>				
Male	157	0.032	58	$p < 0.05$
Female	191	0.051	38	$p < 0.01$
<b>L+H*+L</b>				
Male	207	0.077	98	$p < 0.001$
Female	245	0.096	57	$p < 0.001$
<b>Unstressed (Control)</b>				
Male	127		75	
Female	136		42	

**Table 4.5.** Summary of Pitch Accents for Gender at Non-Diphthongized Stressed Syllables (Duration, Coefficients, Cases, p-values) Compared to Unstressed Syllables.

As seen in Table 4.5., there is a difference in means among the age groups for the different pitch accents. According to these data, the duration of the syllables with the early peak pitch accent (L+H\*+L) for the older age group (55+) is significantly longer ( $p < 0.001$ ) than the unstressed syllables produced by that same age group. The duration of the syllables with the L+H\* pitch accent for the older age group (55+) are also significantly longer ( $p < 0.01$ ) than the unstressed syllables produced by that same age group, while the syllables containing all other pitch accents for the older age group (55+) statistically have the same duration as the unstressed

syllables. The duration for the syllables with the early peak pitch accent (L+H\*+L) for the younger age group (35-54) is significantly longer ( $p < 0.001$ ) than the unstressed syllables produced by that same age group. The duration of the syllables with the L+H\* pitch accent for the younger age group (35-54) are also significantly longer ( $p < 0.05$ ) than the unstressed syllables produced by that same age group.

Age Groups	Avg. Syl. Duration (ms)	Unstandardized Coefficient	Cases (n=)	p-value
<b>L+&gt;H*</b>				
35-54	120	-0.010	4	ns
55+	134	-0.004	9	ns
<b>L+H*</b>				
35-54	158	0.033	52	$p < 0.05$
55+	174	0.048	44	$p < 0.01$
<b>L+H*+L</b>				
35-54	193	0.072	59	$p < 0.001$
55+	238	0.093	96	$p < 0.001$
<b>Unstressed (Control)</b>				
35-54	105		47	
55+	133		70	

**Table 4.6.** Summary of Pitch Accents for Age Groups at Non-Diphthongized Stressed Syllables (Duration, Coefficients, Cases, p-values) Compared to Unstressed Syllables.

## CHAPTER 5

### Discussion

#### Research Questions

In the following sections, I will address the data relevant to the research questions which guided this thesis.

**Research question #1.** The first research question guiding this project was “Is there lengthening of the stressed syllables and an early peak alignment in the  $F_0$  of Argentine Spanish speakers in Queens, NYC and how do these  $F_0$  patterns compare with those previously found in studies of Buenos Aires intonation?” After analyzing the data produced by the participants, it became clear that there is an early peak alignment in the  $F_0$  occurring in Argentine Spanish for both Buenos Aires speakers (BA group) and outside Buenos Aires speakers (OBA group). It also became clear that there is syllable lengthening occurring in this L+H\*+L environment for both groups since these stressed syllables have a durational mean of 100 milliseconds longer than the L+H\* or L+>H\* environments. However, the BA group produced a syllable duration that was significantly longer than that produced by the OBA group ( $p < 0.001$ ) (See Table 4.1.).

In regards to previous studies, the  $F_0$  intonation patterns are consistent with those found in the previously discussed studies in Buenos Aires since the same form of notation, Sp\_ToBI developed by Gabriel et al. (2010), was used. It was confirmed that the BA group produces the L+H\*+L in the pre-nuclear accents in declarative sentences. In fact, they appear almost as often as in nuclear accents (pre-nuclear 70 vs. nuclear 85 – see Table 4.3). However, the Buenos Aires studies had stated that other areas of Argentina, outside of Buenos Aires where Porteño is not spoken, produced a Castilian/CTS variety of Spanish. These data instead show that in Queens,

NYC there appears to be dialectal leveling occurring with early pitch accents and an increased duration of stressed vowels. (This will further be discussed in subsection “Research question #3.)

**Research question #2.** The second question that guided this study was “If lengthening occurs, does this lengthening of the syllable and/or the intonation-change correlate with the vowel phoneme, position of the stressed vowel in the phrase, or syllabic structure?” As has been mentioned during subsection “Research question #1,” there is lengthening of the syllable and an early peak alignment intonational pattern occurring within both groups. The next step was to determine if it was affected by the vowel, phrasal position, or syllabic structure. According to the data, there is no significant lengthening change in syllable duration based on the different vowel phoneme produced (See Table 4.2.), even though the duration of [e] is shown to be significantly shorter than [a]. No significant correlation is found between oral aperture and duration.

The data also show, for phrasal position (pre-nuclear vs. nuclear accents), that the early peak alignment L+H\*+L is significant in both pre-nuclear and nuclear positions ( $p < 0.001$ ). It is important to note that in this early peak environment pre-nuclear and nuclear accents are produced with about the same frequency (70 vs. 85). However, the nuclear L+H\*+L syllables are much longer in duration than said pre-nuclear accents (See Table 4.3.). The data also indicate that only the duration of pre-nuclear syllables is significantly longer ( $p < 0.001$ ) in syllables with the L+H\* pitch accent, while nuclear syllables with this pitch accent were statistically the same duration as the unstressed syllables. This is interesting because nuclear syllables tend to have final lengthening. This is also important because previous studies have shown that the pre-nuclear accents are the key to the syllable duration of Porteño intonation patterns, and this data supports that finding.

According to the data, there is a significant change in syllable duration correlates with the syllabic structure, whether the stressed syllable is open or closed. The closed and open stressed syllables for the pitch accent L+H\*+L, were statistically significant at  $p < 0.001$ . This shows that the syllabic structure does affect duration. The closed syllables produced longer durations than the open syllables in all pitch accents. However, this is very unsurprising, as it aligns with the knowledge that closed syllables contain more phonetic material, thereby, increasing the duration (regardless of vowel duration) (Michalek, 2005; Rosner and Pickering, 1994; van Santen, 1992).

**Research question #3.** The third question that led this study was “If a change in lengthening is observed, does it correlate with the age, gender, or origin?”

In regards to age, the durations of both age groups were significantly longer in syllables with both L+H\*+L and L+H\* pitch accents in comparison to the unstressed syllables of both groups. However, for both age groups, the durations of syllables with the pitch accent L+>H\* are not significantly longer than the unstressed syllables from each group (See Table 4.5.). Even though both age groups have statistically significant durations among syllables with L+H\*+L and L+H\* pitch accents, the 55+ age group consistently produce, on average, a longer syllable duration than the 35-54 age group in all contexts. It needs to be noted that the breakdown between age groups and origins is not balanced; therefore, a balanced group may find different results.

In regards to gender, females produced a duration of syllables with the L+H\*+L pitch accent that are significantly longer ( $p < 0.001$ ) than the unstressed syllables produced by females. Females also produced a duration of syllables with the L+H\* pitch accent that are significantly longer ( $p < 0.01$ ) than the unstressed syllables produced by females. On the other hand, males produced a duration of syllables with the L+H\*+L pitch accent that are significantly longer ( $p$

<0.001) than the unstressed syllables produced by females. Males also produced a duration of syllables with the L+H\* pitch accent that were significantly longer ( $p < 0.05$ ) than the unstressed syllables produced by females. It is interesting to note that, even though both males and females produce significantly longer durations in syllables with L+H\*+L and L+H\* pitch accents, females consistently produce durations that are, on average, 40ms longer than those of the men for both the L+H\*+L and L+H\* pitch accent contexts (See Table 4.4.). This could show a shift towards longer syllable durations since phonetic changes tend to happen first among women of a society before men begin to produce it. O’Grady, Archibald, Aronoff and Rees-Miller (2010) state “that when change *does* occur, women use more of the incoming forms than men.”

In regards to origin, it was interesting to note that the syllables with an early peak alignment (L+H\*+L) have statistically significant longer syllable durations than their unstressed counterparts for both the BA group and the OBA group. Also, the number of times the syllables with this pitch accent appear during the analyzed data are almost identical for both groups (BA 76 vs. OBA 79). This is surprising considering the fact that previous studies (see Chapter Two) have classified Spanish speakers from Argentina that fall into the OBA group as aligning with Castilian/CTS varieties, which do not generally include L+H\*+L pitch accents.

Not only does the OBA group appear to be producing syllables with an early peak alignment, but these syllables seem to be lengthened in duration in comparison to not only the unstressed syllables but the other pitch accented syllables as well. In fact, the syllable durations from the BA and OBA groups are significantly longer ( $p < 0.001$ ). Since this is very atypical of the OBA groups’ previously determined Spanish variety characteristics, it appears that dialectal leveling is occurring between the BA group and the OBA group in Queens, NYC.

According to Otheguy and Zentella (2012), “Latino New York” is a prime location for dialectal leveling due to the high numbers of Spanish speakers from all over Latin America residing there and experiencing intense language contact with one another on a daily basis.

Otheguy and Zentella (2012) clarify that dialectal leveling among groups explains

differences that arise between, on the one hand, a reference lect and, on the other hand, a lect that has become separated and that is now in contact with, and under the influence of, not a different language, but a different form of the same language with which it is becoming more similar. (p. 18)

Given this definition, the data indicate that the Argentine situation in Queens is prosodic dialectal leveling. The reference lect in this case is the Spanish spoken by speakers in Argentina outside of Buenos Aires. The second lect is that of the OBA group which is now in contact with the Porteño Spanish of the BA group. The OBA group is becoming more similar to the BA group through prosodic adoption of syllables with the early peak alignment and an increase in duration of those early peak alignment syllables.

I believe that this prosodic dialectal leveling is occurring due to their desire to create a national identity and reaffirm their Argentine origin since the Queens neighborhoods are a compilation of Latinos from all over Central and South America. Attinasi (1985) explained that “national definition, like any other, has two main facets: (a) being distinct from similar entities, and (b) having a positive substance or set of characteristics to constitute the uniqueness of the group” (p. 36). I believe that the OBA group is adopting the prosodic characteristics of the BA group in order to differentiate themselves from other similar entities (other Latinos) through their unique Porteño patterns (early peak alignment and lengthening). The OBA group is trying to define themselves as Argentines, and many times, the Porteño is what people think of as

Argentine. Therefore, it is through the prosodic dialectal leveling that the OBA is creating their national definition: being Argentines.

There have been many examples of dialectal leveling throughout the United States, specifically in Spanish. Otheguy and Zentella (2012) illustrated that morphological dialectal leveling is highly present in New York City among Caribbean and “newcomers from the Mainland” and their pronoun usage since their pronoun rates have narrowed. Similarly, Torres Cacoulios and Ferreira (2000), showed the tendency for two lects to shift towards the more standard variant. In that study, phonetic dialectal leveling occurred between Mexicans in New Mexico and New Mexican Spanish speakers. It was found that the New Mexican Spanish speakers shifted from producing [v] to the more prestigious [β] as produced by the Mexicans. This is similar to the Argentines in Queens since a merging did not occur, but rather one dialect shifted towards the other.

Another important study by Alvord (2010) presented an example of beginning prosodic dialectal leveling in Miami, Florida. The two groups living in Miami, Cubans and Cuban Americans, appear to be beginning a shift from a falling contour in interrogatives to the general Spanish pattern of a rising contour. Likewise, the OBA group in Queens appears to be shifting and undergoing prosodic dialectal leveling.

### **Limitations and Further Research**

This study acts as a basis for future research. Future researchers may wish to increase the number of participants in their study. Researchers may also consider increasing the number of participants from each group: BA vs. OBA. Future research may also wish to focus on interviewing an even number of men and women and participants who are 18–34 years old to account for the youngest age group and possibly second generation children. It would also be

interesting to gather more personal data about each participant, such as educational level, consumption of Argentine media (specifically based out of Buenos Aires), time spent in Argentina, time spent in the United States and age of arrival in the United States from Argentina.

I believe the next step is either to expand the study to all of New York City or try a new location, such as Miami or Southern California, which are known to have larger Argentine populations than NYC. I refrained from using informants from Córdoba due to their unique stress patterns which have been reported as being very different from those of Buenos Aires and other regions of Argentina. There is much more research that can be done regarding language and dialect contact with respect to the Argentines in Queens. Specifically, it would be very interesting to study the dialectal leveling occurring with phonetic features such as /f/ and /z/ between Porteños and other Argentines in Queens. Another aspect that should be investigated is that of attitudes of OBA Argentines towards the Porteño dialect and how that attitude affects their acquisition of the intonation patterns and duration increase.

## **Conclusions**

This thesis has contributed to the knowledge of Spanish in New York City and to that of Argentine Spanish intonation outside of Argentina through identifying a situation of prosodic dialectal leveling in New York City among Argentines. Through the acquisition of an early peak alignment (L+H\*+L pitch accent) in syllables and an increase in syllable duration in said context by the Outside of Buenos Aires (OBA) group, it appears plausible that these attributes have been absorbed from the Buenos Aires (BA) group of Spanish speakers in Queens since the L+H\*+L pitch accent is foreign to the traditional intonational inventory of the OBA group, as stated in previous studies. Since the BA group produced syllables with the anticipated pitch accents and duration as proposed by previous studies, it would be fair to say that this dialectal leveling is not

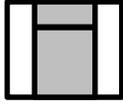
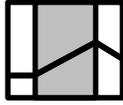
producing a simplified version of Argentine Spanish, but rather is forming a shift towards Porteño (perhaps out of a feeling of prestige towards the dialect of Buenos Aires). Due to the large gap in studies on the Argentine population in the United States, and specifically in New York City, the current findings are vital to the discipline.

As this thesis adds new data to our knowledge of prosodic dialectal leveling, it also discusses the possible correlation with age and gender to syllabic duration lengthening and pitch accents. The results show that the older age group (55+) produced syllables of longer duration, on average, than the younger age group (35-54) in all pitch accent contexts. The results also show that the females, on average, produce syllables of longer duration than the males in all pitch accent contexts. This thesis sought to help fill in this academic gap, and I believe that it has taken a step in that direction and can act as a springboard for future intonational studies on Spanish in the United States and on Argentine dialectal leveling around the world.

## APPENDIX A

### “Inventory of Monotonal and Bitonal Pitch Accents in Argentinian Spanish and their Schematic Representations”

Reproduced here from Gabriel et al. (2010) article “Argentinian Spanish Intonation”  
pp. 288-289.

<b>Monotonal pitch accents</b>		
	L*	This pitch accent is realized as a low plateau at the low level of the speaker's range. It typically occurs as a nuclear accent in broad focus statements, alternating with H+L* (see below). It is also found in the post-wh sequence of wh- questions.
	H*	This pitch accent surfaces as a high plateau without any preceding F <sub>0</sub> valley. It occasionally occurs as a pre-nuclear accent in different sentence types, in most cases at the very beginning of the utterance.
<b>Bitonal pitch accents</b>		
	L+H*	This pitch accent is realized as a rising F <sub>0</sub> movement during the metrically strong syllable with the F <sub>0</sub> peak located at its end. It typically occurs in pre-nuclear position in statements as well as in questions. It is also realized in nuclear position in vocatives and yes-no questions with final oxytonic words, among others.
	L+iH*	This pitch accent is realized as a rising F <sub>0</sub> movement during the metrically strong syllable with an upstepped F <sub>0</sub> peak located at its end. It typically occurs in nuclear position in different types of yes-no questions.
	L+>H*	This pitch accent is realized as a rising F <sub>0</sub> movement during the metrically strong syllable with its F <sub>0</sub> peak aligned with the posttonic syllable. It occasionally occurs in pre-nuclear positions of different sentence types.
	H+L*	This pitch accent surfaces as a F <sub>0</sub> fall within the temporal limits of the metrically strong syllable. In our data it occurs as a nuclear accent in broad focus statements and commands.
<b>Tritonal pitch accent</b>		
	L+H*+L	This pitch accent displays a rising-falling pattern within the metrically strong syllable. It typically occurs in nuclear position and in utterances with a contrastive or emphatic reading.

## APPENDIX B

### Interview Modules and Sample Questions

These modules, and questions within the modules, were used as a guide during the interview. Not all of these were asked in every interview. Each interview lasted anywhere from 5–25 minutes depending on how much time the participant had and/or how much they were willing to be interviewed. The purpose of these modules was to help the participants to produce as natural speech as possible. There was no required order for these questions. The underlined questions were considered a priority.

#### 1. Demography

- a. ¿Cómo se llama Ud.?
- b. ¿De cuál parte de Argentinas es Ud.?
- c. ¿Cuántos años tiene Ud.?
- d. ¿En qué año llegó Ud. a los Estados Unidos? ¿Cuántos años tenía usted cuando llegó?
- e. ¿Cuánto tiempo ha vivido Ud. en Nueva York?
- f. ¿Cuánto tiempo ha vivido Ud. en Queens?
- g. ¿Cuánto tiempo vivió Ud. en Argentina?

#### 2. World Cup 2014

- a. ¿Hasta ahora, cómo ha disfrutado de la copa mundial?
- b. ¿Cómo ve Ud. las chances de Argentina?
- c. ¿Qué va a hacer cuando gana Argentina?
- d. ¿En el torneo, a qué jugadores Ud. piensa que debríamos observar? ¿y en la selección nacional?

- e. ¿Cuál es la mejor manera de celebrar y dónde?

### **3. Family**

- a. Describa a su familia.
  - i. ¿Vive aquí con su familia en Queens?
  - ii. ¿Todavía tiene Ud. familia en Argentina?
  - iii. ¿Tiene Ud. una familia grande?
- b. ¿Qué le gusta más de ser padre/madre?
- c. ¿Qué le da el mayor gozo en relación con su familia?

### **4. Education**

- a. ¿Cuál fue el título de educación más elevado que Ud. ha recibido?
- b. ¿Cuántos años de la escuela ha cumplido Ud.?

### **5. Argentina vs. NYC**

- a. ¿Cómo es su ciudad/región de origen?
- b. ¿Qué extraña de Argentina?
- c. ¿Cómo se compara Queens con su lugar de origen?
- d. ¿Cuál lugar prefiere Ud.? ¿Por qué?

### **6. Work**

- a. ¿Qué aspecto de su trabajo le gusta más? ¿Por qué?
- b. ¿Qué espera hacer en el futuro?
- c. ¿Cómo fue el proceso de encontrar trabajo en América?

### **7. Childhood**

- a. ¿Cómo era su niñez en Argentina?
- b. ¿Cuáles son algunas de sus memorias preferidas allí? ¿Son con familia?

## APPENDIX C

### Sample categorization of stressed tokens in BA group

This is a sample of categorization that was done of stressed tokens of a participant from the BA group. This shows the number of occurrences of each token in the following categories: syllable placement within the word (ultimate vs. penultimate vs. antepenultimate), syllable structure (open vs. closed), syllable nuclear position in the phrase (pre-nuclear vs nuclear), and Sp\_ToBI pattern. For this study, I was specifically looking at the following Sp\_ToBI patterns based on Gabriel, Feldhausen, and Pešková’s (2011) “Prosodic phrasing in Porteño Spanish” and Gabriel et al.’s (2010) “Argentinian Spanish Intonation” articles: L+H\*, L+>H\*, and L+H\*+L.

	H*						L*						L+H*								
	C			O			C			O			C			O					
	A	P	U	A	P	U	A	P	U	A	P	U	A	P	U	A	P	U			
Pre-nuclear				2															2		2
Nuclear				1						1									1		

L+iH*						L+>H*					
C			O			C			O		
A	P	U	A	P	U	A	P	U	A	P	U
										1	

H+L*						L+H*+L						H+L*+H					
C			O			C			O			C			O		
A	P	U	A	P	U	A	P	U	A	P	U	A	P	U	A	P	U
			2	5		1		1	2	3						1	
		1	4	1				1	1	1							

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