Variation in the Intonation of Uruguayan Spanish Declaratives

By

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To Cecilia – for your unwavering love, support, dedication, and inspiration.

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List of Abbreviations

AM	Autosegmental-Metrical
BAS	Buenos Aires Spanish
BFD	Broad-Focus Declarative
CS	Castilian Spanish
DA	Deaccented
DZ	Durazno
DZS	Durazno Spanish
dB	Decibels
DCT	Discourse Completion Task
F	Female
F0	Fundamental Frequency
Hz	Hertz
Ip	Intermediate Phrase
IP	Intonational Phrase
L1	First Language
L2	Second Language
M	Male
ms	Milliseconds
MS	Montevideo Spanish
MV	Montevideo
n	Number (Total)
NFD	Narrow-Focus Declarative
PW	Prosodic Word
SLA	Second Language Acquisition
Sp_ToBI	Spanish Tones and Break Indices
ToBI	Tones and Break Indices
UYS	Uruguayan Spanish
σ	Syllable

Abstract

This dissertation explores the linguistic variation in Uruguayan Spanish intonation patterns spoken in the Uruguayan capital of Montevideo and the centrally located historically rural department of Durazno by examining broad-focus and narrow-focus declaratives in both locations. This is the first study to look at Durazno intonation and compare different narrow-focus intonation types in Uruguay. It begins by highlighting the demographic distribution of Uruguay's population and the immigration patterns that shaped the region. This study employs the Autosegmental-Metrical Model and the Spanish Tones and Break Indices to compare the intonation patterns of Montevideo and Durazno with those documented for Buenos Aires Spanish (BAS). The study includes 50 informants, equally divided between genders and across three age groups. The task analyzed is a Discourse Completion Task. Results indicate that Montevideo Spanish (MS) displays similarities to BAS, whose intonation patterns are attributed to language contact with Italian. This similarity is seen in a preference for prenuclear L+H* in Broad-Focus Declaratives (BFDs) and tritonal L+H*+L in Narrow-Focus Declaratives (NFDs). The results for MS show that contrastive/corrective focus employs tritonal L+H*+L, whereas emphasis is marked by upstepping, using L+¡H*. More mild narrow focus in MS is expressed with L+H*. Durazno Spanish (DZS) is less like MS and BAS, favoring late-peaking prenuclear pitch accents L+<H* and L*+H more aligned with Castilian Spanish (CS). Both contrastive/corrective focus and emphasis in DZS are marked with L+H*, with very few informants using the tritonal or upstepping. In both MS and DZS, informants peak late in phrase-initial position, even in informants that typically peak early in other environments. Socially, females in both locations exhibit greater intonational contrasts between broad and narrow focus. However, this is more salient in MS. Older speakers in Montevideo perhaps resemble BAS more

closely in prenuclear position by peaking late the least. Ultimately, this dissertation contributes a robust data set from an understudied variety to the growing number of analyses using Sp_ToBI.

Chapter 1: Introduction

Uruguay is a small country of approximately 3.45 million people; around 40% live in the capital city of Montevideo, and another 30% live in other departments along the southern coast; the country's rural interior is speckled with cities and small towns. Uruguay, like Argentina, mostly Buenos Aires, experienced a massive influx of Italian immigrants between 1880 and 1930, which had a lasting impact on the Spanish spoken in both countries. Uruguayan Spanish is understudied, especially in terms of intonation. Most linguistic studies in Uruguay center around the capital city of Montevideo in the south, the northern border towns of Rivera and Artigas, and the eastern departments of Rocha and Maldonado. The middle of the country is mostly ignored in the linguistic literature. To begin to include these speakers, this dissertation studies broad-focus and narrow-focus declaratives in Montevideo and Durazno, Uruguay.

This dissertation is the first to consider the Spanish spoken in Durazno, apart from the ADDU (Thun & Elizaincín, 2000), the first documentation of Durazno intonation, and the first to rigorously study narrow-focus declaratives in Uruguay. The influence of Italian intonation on Buenos Aires Spanish (BAS) has been well studied, but in Uruguay, mostly Montevideo, the topic is only beginning to be studied. The present study, couched in the Autosegmental-Metrical (AM) Model and the Spanish Tones and Break Indices (Sp_ToBI), compares the Uruguayan departments of Montevideo and Durazno. Durazno, located in the center of Uruguay, was chosen to sample speech minimally affected by neighboring countries (i.e., Argentina and Brazil) and Montevideo.

The primary objective of this dissertation is to provide a phonological description of the intonation patterns used in these Uruguayan departments, as they occur in Broad-Focus Declaratives (BFDs) and Narrow-Focus Declaratives (NFDs). Secondary to this, this dissertation

addresses sociolinguistic variation by age and gender, and peripherally explores the role of grammar, syntax, and communicative value on the selection of phonological targets (i.e., pitch accents and boundary tones). To meet these objectives, this dissertation counts on 50 informants, 30 from Montevideo and 20 from Durazno, with equal numbers of males and females across three adult age groups: 18-35, 36-59, and 60+. These informants were pulled from a pool of 533 informants from across the country recorded in 2022 that make up my own Voces de Uruguay Linguistic Corpus (VULC). To establish a foundation for future studies and increase comparability with BAS, this dissertation analyzes BFDs and NFDs via the Discourse Completion Task (DCT) created for the Interactive Atlas for Spanish Intonation.

Nine utterances, 3 BFDs, and 6 NFDs were analyzed for each informant, totaling 450 utterances and 1600 prosodic words (PWs). Due to the limited number of BFDs, prenuclear pre-focal PWs in the NFD utterances were analyzed as broad focus, a choice supported by the results. The frequency with which informants from both departments employed each Sp_ToBI pitch accent and boundary tone is compared to other Spanish varieties, mainly BAS and Castilian Spanish (CS), whose intonation patterns are frequently found in other Spanish varieties. BAS intonation employs early peaking pitch accent L+H* in prenuclear position, whereas CS peaks later employing pitch accent L+<H*. In nuclear position, BAS employs falling nuclear pitch accent H+L*, whereas CS either employs monotonal L* or early peaking L+H*, but with minimal peak height. To mark narrow focus, BAS employs tritonal pitch accent L+H*+L, whereas CS employs L+H*, with more appreciable peak height. A preference for BAS-like intonation in Uruguay would further claims that BAS and particularly Montevideo Spanish (MS) are very similar, whereas a preference for CS intonation would demonstrate increased dialectal dissimilarity between the two River Plate capitals. Durazno Spanish (DZS) is likewise compared

to understand how Uruguayan Spanish (UYS) varies in Uruguay's understudied historically rural interior.

The acoustic analysis of F0 reveals particular patterns that indicate geographic, syntactic, and social variation. MS intonation patterns after BAS in its preference for prenuclear L+H* and narrow-focus pitch accent L+H*+L. However, UYS does not employ nuclear pitch accent H+L*, marking a clear preference for the CS-inspired L*, followed by L+H*. These preferences demonstrate that MS differs intonationally from BAS in BFD nuclear position. DZS, however, while using prenuclear L+H*, exhibits a clear tendency for late peaking L+<H* and L*+H, the latter being significantly more common than in MS. The combination of these two late-peaking pitch accents surpasses the use of L+H*, whereas in MS, it does not. DZS rarely uses tritonal L+H*+L to mark narrow focus and prefers CS pitch accent L+H*. These trends demonstrate that MS exhibits greater similarity to BAS than DZS.

Furthermore, this dissertation demonstrates that not all types of narrow focus are marked with the same pitch accent; instead, the expression of narrow focus varies by degree and thereby falls on a spectrum. In MS, L+H*+L is used for corrective/contrastive focus, whereas upstepping marks emphasis, using pitch accent L+¡H*. In DZS, where L+H*+L is rare, L+H* is used most commonly for both corrective/contrastive focus and emphasis, though upstepping is still occasionally used for emphasis.

Socially, in both departments in prenuclear position, females peak later than males by using an increased number of L+<H*, and in MS, females also employ more L+H*+L to mark narrow focus. This suggests that females mark greater intonational contrasts than males. Age also plays a role in Montevideo such that informants over 60 employ prenuclear L+<H* the least, suggesting that the older generation speaks more similarly to BAS than the younger

generations, which peak later. In Durazno, the youngest age group employs L+<H* more than other age groups, but this finding is heavily influenced by the females of that age group.

Regarding intonation variation in syntax, phrase-initial position prefers late peaking (i.e., L+<H* and L*+H) across departments and social variables. Informants who commonly peak early, peak late in this syntactic environment. This helps explain, to a point, the degree of mixing of L+H* and L+<H* in the data for prenuclear position, as well as the results of previous work, which found L+<H* to be more common in MS than is presently demonstrated. Late peaking was also used to increase the visibility of PWs without marking narrow focus, such that some words that do not merit visibility never peak late, irrespective of department and social factors. In short, there is greater linguistic diversity for intonation in the present data in Montevideo.

Chapter 2 contextualizes the study through a historical account of Uruguay through the lens of relevant social and political factors. After establishing the linguistic context in which the present fieldwork was conducted, Chapter 3 discusses the theoretical framework within which the acoustic analysis is couched. Chapter 4 outlines the study design and explains how the acoustic analysis was conducted. Chapter 5 presents the results of the acoustic analysis and the statistical significance of the different patterns observed in the data. Chapter 6 applies the findings from Chapter 5 to the linguistic context and theoretical framework and literature from Chapters 2 and 3, respectively. Chapter 7 includes a summary of the conclusions and discusses limitations and considerations for future research.

Chapter 2: Language Context of Uruguay

2.1 Introduction

This chapter explores the history, geography, and population of Uruguay to provide context for the development of differing linguistic features throughout the country. This chapter demonstrates that European immigration played a significant role in the population of Buenos Aires and Montevideo. Due to this historical language contact, this chapter introduces the reader to some basic principles of language contact theory and their role in the development of linguistic systems. Additionally, this chapter discusses what is known about the different varieties spoken or features used in Uruguay and draws attention to which populations have been overlooked, mainly those from Uruguay's historically and presently mostly rural interior. Lastly, the ongoing contact with Argentina is addressed, which helps motivate the selection of Durazno as a point of comparison to Montevideo.

2.2 Geography and Population

Uruguay is a comparatively small country in terms of geography (68,037mi^2) and population (3,444,263) (Censo 2023[1]), located in the southeastern part of South America at the base of Brazil and across the Río de la Plata (River Plate) from Argentina along the Atlantic coast. Uruguay is divided into 19 Departments, with its capital, Montevideo, as the country's main urban center located midway along Uruguay's southern coast. A current political map for Uruguay is found in Figure 2.1. Notice the geographical size and location of Montevideo and Durazno, as these are the two departments compared in this dissertation.

[1] These are preliminary census results published November 27, 2023, by the *Insituto Nacional de Estadística* (INE). Detailed results by department are not available yet, so this dissertation turns to the 2011 Census for that data.

Figure 2.1: Current Political Map of Uruguay (Source: www.worldatlas.com/maps/uruguay)

According to the 2011 Census, Montevideo has a population of 1,319,108, representing 40.13% of the total population. The remaining 59.87% is divided among the other 18 departments. The historical population Census data are found in Table 2.1.

Country Population by Department
Population Census Years 1852, 1860, 1908, 1963, 1975, 1985, 1996, 2004 y 2011

Department	1852	1860	1908	1963	1975	1985	1996	2004	2011 (1)
Country Total	131,969	229,480	1,042,686	2,595,510	2,788,429	2,955,241	3,163,763	3,241,003	3,286,314
Montevideo	33,994	57,913	309,231	1,202,757	1,237,227	1,311,976	1,344,839	1,325,968	1,319,108
MV % of Total Pop.	25.76%	25.24%	29.66%	46.34%	44.37%	44.39%	42.51%	40.91%	40.14%
Rest of the Country	97,975	171,567	733,455	1,392,753	1,551,202	1,643,265	1,818,924	1,915,035	1,967,206
Artigas	(a)	(a)	26,321	52,843	57,947	69,145	75,059	78,019	73,378
Canelones	17,817	20,468	87,874	258,195	325,594	364,248	443,053	485,240	520,187
Cerro Largo	6,451	17,475	44,742	71,023	74,027	78,416	82,510	86,564	84,698
Colonia	7,971	13,349	54,644	105,276	111,832	112,717	120,241	119,266	123,203
Durazno	5,591	8,973	42,325	53,635	55,699	55,077	55,716	58,859	57,088
Flores	(b)	(b)	16,082	23,805	24,745	24,739	25,030	25,104	25,050
Florida	(c)	12,170	45,406	63,987	67,129	66,474	66,503	68,181	67,048
Lavalleja	8,089	12,852	51,222	65,823	65,180	61,466	61,085	60,925	58,815
Maldonado	9,733	20,000	28,820	61,259	76,211	94,314	127,502	140,192	164,300
Paysandú	6,247	14,201	38,421	88,029	98,508	103,763	111,509	113,244	113,124
Rio Negro	(d)	(d)	19,932	46,861	50,123	48,644	51,713	53,989	54,765
Rivera	(e)	(e)	35,683	77,086	82,043	89,475	98,472	104,921	103,493
Rocha	(f)	(f)	34,119	55,097	60,258	66,601	70,292	69,937	68,088
Salto	7,364	15,821	46,259	92,183	103,074	108,487	117,597	123,120	124,878
San José	13,114	12,527	46,324	79,393	88,000	89,893	96,664	103,104	108,309
Soriano	9,031	14,138	39,565	77,875	80,614	79,439	81,557	84,563	82,595
Tacuarembó	6,567	9,593	46,939	76,964	84,535	83,498	84,919	90,489	90,053
Treinta y Tres	(g)	(g)	28,777	43,419	45,683	46,869	49,502	49,318	48,134

Source: Instituto Nacional de Estadística (INE).
(1): Includes the 437 homeless people and the estimated 34,223 people in homes with absent residents.
(a): Artigas was created with part of the department of Salto.
(b): Flores was created with part of the department of San José.
(c): Florida was created with part of the department of San José.
(d): Rio Negro was created with part of the department of Paysandú.
(e): Rivera was created with part of the department of Tacuarembó.
(f): Rocha was created with part of the department of Maldonado.
(g): Treinta y Tres was created with part of the departments of Minas (presently Lavalleja) and of Cerro Largo.
Compared in this dissertation | Ocean Access + Montevideo

Table 2.1: Historical Population Census Data (Instituto Nacional de Estadística– INE). (Color and percentages added)

As is common throughout the world, most of Uruguay's population lives along the coast, giving rise to Uruguay's largest urban centers. Interior departments, on the other hand, were historically agricultural lands that early accounts of Uruguay refer to as rural. These are still rural agricultural departments, producing for domestic and international markets. However, with industrialization and expanded access to higher levels of education, and consequently other professions, most of the population in each "rural" department is concentrated around smaller urban centers. As pictured in Figure 2.1 above, the Department of Canelones surrounds Montevideo, and many who live in Canelones commute to Montevideo for work. Therefore, Canelones is understandably the next most populated department, and the only department of the remaining 18 whose capital city is not its most populated city. In the case of Canelones, this is

likely partly due to the capital city's distance from Montevideo compared to the closer and, thus, much larger city of Las Piedras. Canelones and Montevideo together account for ~56% of the county's population. To further understand the population distribution, these two departments, together with the other coastal departments of Colonia, San José, Maldonado, and Rocha, account for ~70% of the total population. This dissertation compares Montevideo to Durazno, a department in the center of the country, as pictured in Figure 2.1 above. The Department of Durazno has a total population of 57,088, making up only 1.7% of the total population and ~17.22% of the combined population of the other non-coastal departments. Durazno was selected due to its potential linguistic neutrality in that it does not border other countries like Argentina or Brazil. Also, it does not border Montevideo, nor is it a commuter department or main tourist hub.

Much of the Uruguayan landscape is pastureland, dedicated to the beef and dairy industries, as well as sheep for both meat and wool (Uruguay XXI, 2022). Meanwhile, soybean, wheat, rice, corn, barley, rapeseed, and sorghum, in that order, are the main crops in Uruguay (IPAD, 2024). Vast fields of rapeseed provide stunning yellow landscapes. Eucalyptus plantations provide height to the otherwise mostly flat landscape. In terms of numbers, Uruguay's average elevation is 357.61 feet (or 109 meters) above sea level. These industries are geographically distributed, with most crops grown predominately in the west, except for rice which is grown in the north and east (IPAD, 2024). The highest concentrations of eucalyptus forests run across the middle of the country (Uruguay XXI, 2020). As a metropolitan city, Montevideo relies on production in the interior for its sustenance. Agriculture in Durazno is a mix of livestock and forestry, with a lesser role in barley, soybean, sunflower, and wheat farming (IPAD, 2024). That said, a significant number of the Durazno population do not work in these rural industries and instead have other careers that help any typical society run.

2.3 History

Buenos Aires Spanish (BAS) and Uruguayan Spanish (UYS) are often grouped. To account for the similarity between BAS and UYS, it is paramount to explore the historical and migratory events responsible for populating these communities and thereby understand the linguistic influences that have been at work in the region until now. Admittedly, Uruguay and Argentina have very deep historical, political, social, and linguistic ties. In this section I summarize key historical events and migration patterns to demonstrate the relationship between both nations.

2.3.1 General History for the Foundation on the Nation

Spanish explorers first arrived in the region in 1516, and Uruguay (at this time called *Banda Oriental*) would turn into a point of contention between the Spanish in Buenos Aires to the west and the Portuguese in Brazil to the north. The Spanish used Uruguay as pasture grounds beginning in 1603, and in 1680, the Portuguese established a colony along the Río de la Plata, in Colonia del Sacramento. Fortifications were built in Montevideo beginning in 1724 to counter Portuguese expansion. In 1776, the Viceroyalty of the Río de la Plata was established, which included present-day Argentina, Uruguay, Paraguay, and Bolivia, administrated from Buenos Aires, Argentina, as depicted in Figure 2.2.

Figure 2.2: Geographical Boundaries of the Viceroyalties of South America in the Year 1800. Based on information from A. Curtis Wilgus, Historical Atlas of Latin America, New York, 1967, p. 112. (Hudson et al., 1992, p. 10)

However, the natural seaport at Montevideo permitted it to trade directly with Spain instead of going through Buenos Aires. In 1796, The Spanish joined the French in its war against Britain, thus giving cause for Britain to take action against its Spanish colonies, including Argentina and Uruguay. The British invaded Buenos Aires in 1806 and, after being kicked out after just 46 days, occupied Montevideo in 1807 for several months before attempting to retake it, although their second attempt was thwarted. In 1808, when Napoleon invaded Spain and

deposed King Ferdinand VII, Montevideo's military commander, Javier Elío, persuaded the Spanish central *junta* to accept his control at Montevideo as independent of Buenos Aires. In 1810, the *criollos* (children born to European parents in the Americas) in Buenos Aires unseated the Spanish viceroy Santiago de Liniers, leaving the military power in the hands of the Buenos Aires *criollos*. Subsequently, Spain named Javier Elío the new Viceroy of the Río de la Plata. However, the criollos in Buenos Aires did not recognize him and thus he declared Montevideo the new capital of the Viceroyalty. To solidify his power of the Viceroyalty, Elío prepared to attack Buenos Aires in February 1811 but was opposed by José Gervasio Artigas, Captain of the revolutionary *criollos*. After defeating the Spanish at the Battle of Las Piedras, Artigas marched on Montevideo. Elío was saved only by inviting in the Portuguese forces from Brazil, which dominated most of the country within two months. Peace was declared with Buenos Aires, and a joint Argentina-Uruguay government was established, the United Provinces of the Río de la Plata. However, the assembly refused to seat the Uruguayan delegates, leading Artigas to attack Montevideo again. Artigas successfully took Montevideo in 1815 and organized the first autonomous government, called the Federal League. However, this Federal League included the present-day Argentine provinces of Córdoba, Entre Ríos, Corrientes, Santa Fe, and Misiones and part of the southern Brazilian state of Rio Grande do Sul, as seen in Figure 2.3.

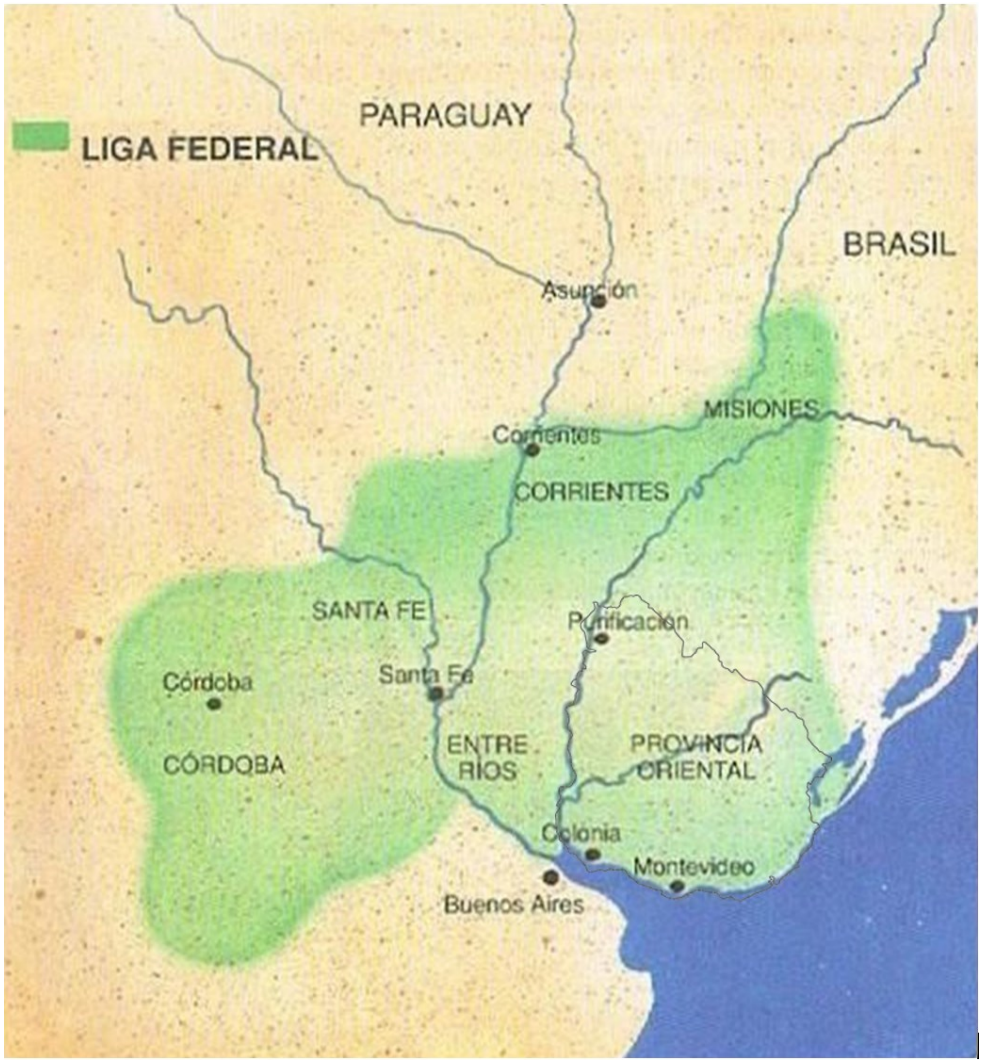

Figure 2.3: Geographic Boundaries of the Federal League in Year 1815 (Source: https://alchetron.com/Liga-Federal) outline of current boundaries superimposed.

In 1816, a force of 10,000 Portuguese troops invaded the *Banda Oriental* from Brazil and took Montevideo in 1817. Artigas fought the Portuguese until 1820 when he was defeated. At this point, the Federal League was dissolved, the constituent provinces joined their respective countries, and Brazil annexed the *Banda Oriental* as its southernmost Cisplatine Province. Artigas fled into exile in Paraguay, where he remained until he died in 1850. In 1822, Brazil gained its independence from Portugal, and on April 19, 1825, a group of Uruguayan revolutionaries (the famous *Treinta y Tres Orientales* (Thirty-Three Heroes), led by Juan

Antonio Lavalleja, reinforced by Argentine troops, organized an insurrection and succeeded in gaining control of the countryside. On August 25, 1825, representatives of the *Banda Oriental* declared the territory's independence from Brazil, marking the currently celebrated Uruguayan Independence Day, and its incorporation into the United Provinces of Río de la Plata (Argentina). Brazil declared war on them, and the conflict lasted from December 1825 to August 1828. In 1828, Lord John Ponsonby, envoy of the British Foreign Office, proposed making the *Banda Oriental* an independent country. Brazil and Argentina signed the Treaty of Montevideo at Rio de Janeiro on August 27, 1828, in which they renounced their claim to the territory. However, they reserved the right to intervene in the event of civil war and to approve the new nation's constitution. The constitution was approved on July 18, 1830, ratified by Argentina and Brazil, and the Oriental Republic of Uruguay was formed. At the time of independence, Uruguay had an estimated population of just under 75,000[2], of which less than 20% resided in the capital, Montevideo (Hudson et al., 1992, p. 11); however, census data is not available until 1852.

2.3.2 The Great War

Between 1830 and 1843, there were several disputes and battles between rival political parties and their followers, aided by foreign governments. In 1843, civil war, known as the Great War, broke out in Uruguay between the two political parties, the *Blancos* headed by former President Oribe (1835 to 1838), and the *Colorados*, headed by President Rivera (1830 to 1835 & 1838 to 1843). This Great War, centered on the nine-year long war of Montevideo, ending in 1852. The involvement of France and Britain transformed the conflict into an international war, but they were unsuccessful and withdrew in 1850. Due to an uprising against former President

[2] It is not clear if this number accounts for the indigenous population. However, as discussed later, the native Charrúa population never surpassed 10,000 and in 1831, they were massacred.

Oribe's Argentine backer, Buenos Aires Governor Juan Manuel de Rosas, Oribe was defeated by President Rivera in 1851. The victorious *Colorado* government was then supported with Brazilian money and naval forces (Hudson et al., 1992, p. 14). Buenos Aires Governor Juan Manuel de Rosas fell from power in Argentina, and the Great War ended. It is at this point, in 1852, that the first national census was carried out, confirming a total of 131,969 people (INE Uruguay) see Table 2.1 above, 25.76% of which resided in Montevideo, followed by 13.5% in Canelones, and 9.9% in San José, all southern departments.

2.3.3 Durazno

As the country's Capital, Montevideo has understandably received much greater attention in all fields of study than the Department of Durazno. This was evident in the previous sections, which outline, among other things, the history of Montevideo. This section is dedicated specifically to the history of Durazno to provide insights that may improve our understanding of the linguistic influences that shaped the region. Durazno, as pictured in Figure 2.1, is located in the center of the country. As is typical, natural formations dictate the current borders of the Department. The Río Negro (Black River), which very effectively separates the country into north and south, forms Durazno's northern border, and the Río Yi (Yi River) forms nearly all its southern border. The Department's capital city, by the same name, Durazno, is located along the southern border of the Department, south of the Río Yi, and was established as a consequence of the existence of the Paso de Durazno (Durazno Pass). The Paso de Durazno facilitated the crossing of the Río Yi and was vital to herding livestock across the river. Since it could take months for the water level to fall, to allow safe passage, communities formed along the river's edge. Given the importance of the Paso de Durazno, the community that formed there eventually became the City of Durazno, the most populated city of the department to this day.

The City of Durazno (1906) was founded on October 12, 1821, during the Portuguese occupation and was initially called San Pedro del Durazno or Villa de Durazno. Its foundation came as a destination to gather people and families who had been dispersed throughout the interior of the country during the many wars and who did not have their own land nor the financial resources to obtain land. Grazing and croplands south of the Río Yi were parceled and given to the population (Campodónico & Wettstein, 1970, p. 7). According to Martínez (2011), by the end of 1821, General Rivera brought many families from Clara[3]. Other families came from a variety of places: many from Cerro Largo, others from San José, San Carlos[4], Florida, and Porongos[5], and some from Montevideo and Canelones (p. 2). In 1829, there were efforts made to make Durazno the nation's capital, but instead, it became a home base for President Rivera. The Department of Durazno was created in 1830 as one of the original nine departments at the time of the signing of the Constitution. Between 1831 and 1834, hundreds of Guaraní settled in Durazno, having followed General Rivera from Misiones in northern Argentina, as well as some Charrúas who survived the "Salsipuedes" Massacre of 1831 (p. 3). Railways arrived in Durazno in 1872, crossed the Río Yi in 1879, and completed its connection in Paso de los Toros in 1886, which opened safe and fast transit from north of the Río Negro to the ports in Montevideo (p. 4).

2.4 Linguistic Influences

2.4.1 Linguistic Substrate

Henríquez Ureña (1921) established five dialectal zones for Latin American Spanish, and these zones were based on three criteria: 1) geographic proximity, 2) political and cultural ties, and 3) the indigenous substrate. Henríquez Ureña's zoning efforts assigned Uruguay to the River

[3] Likely referring to the community named Clara in Tacuarembó.
[4] A city in modern day Maldonado.
[5] Located in Flores.

Plate Zone (also referred to as *Zona del Río de la Plata*, *Zona rioplatense*) which encompassed Argentina, Uruguay, and Paraguay, classified as being of Guaraní substrate. While there are many toponyms in Uruguay in Guaraní as well as other lexical items, this is a result of using Guaraní translators to communicate with the other indigenous groups in the Uruguayan territory, predominantly the Charrúa (and other related groups Yaró, Guenoa, Bohané, and Minuan). Little has been documented of the indigenous Charrúa language. The Charrúa, "never exceeding 10,000 in number in eighteenth-century Uruguay…also lacked any economic significance to the Europeans because they usually did not produce for trade" (Hudson et al., 1992, p. 6). With the ratification of the constitution in 1830 and with the exile of José Gervasio Artigas, who once fought to defend the indigenous, the Charrúa were persecuted and massacred in 1831 (F. Klein, 2007).

While both the Spanish and Portuguese occupied the territory now called The Oriental Republic of Uruguay, or just Uruguay, Spanish was both the colonizing language as well as the language spoken by the *criollos* that were ultimately successful in gaining the country's independence with the help of the British intercession. Unlike many other Latin American countries, Uruguay is not heavily influenced by an indigenous linguistic substrate, nor are there communities that preserve indigenous languages native to Uruguay. Hence, there is no ongoing bilingualism or language contact between Uruguayan Spanish and indigenous languages. However, in the northern departments closer to Brazil the influence of the Portuguese language continues to play a role in the linguistic development of the region. The departments sampled in this dissertation purposefully fall outside the traditionally defined limits of the bilingual zone.

2.4.2 Population Increase

2.4.2.1 Fertility and Birthrate

Recall that, according to official census data, the total Uruguayan population in 1852 was 131,969; within eight years, it increased to 229,480 in 1860, an increase of 73.8%. The next official census was not conducted until 1908. During those 48 years, the total population increased by 354.4% to 1,042,686. This time of massive population growth spurred by immigration, mainly from Spain and Italy, is the object of Goebel's study. For comparison, 55 years later, in 1963, the population had more than doubled to 2,595,510, a percent increase of ~149%. After the 1963 census, they were conducted more regularly, and the population grew much slower, indicative of lower levels of immigration. By 2011, the Uruguayan population had only increased 26.6% since 1963. To understand the role of childbirth and immigration on population size, Gapminder (2017) provides chronological data, as seen in Figure 2.4, on fertility rates in Uruguay, defined as the number of children per woman based on age-specific fertility rates in one particular year. This data demonstrates that in 1882, the fertility rate was 5.76 children per woman, declining to only 1.94 children per woman in 2022. Additionally, in Figure 2.5, International Historical Statistics and Mitchell (2013) provide data on birthrates in Uruguay ranging from 43 (per 1000 of the population) in 1882 to 14.1 (per 1000 of the population) in 2009.

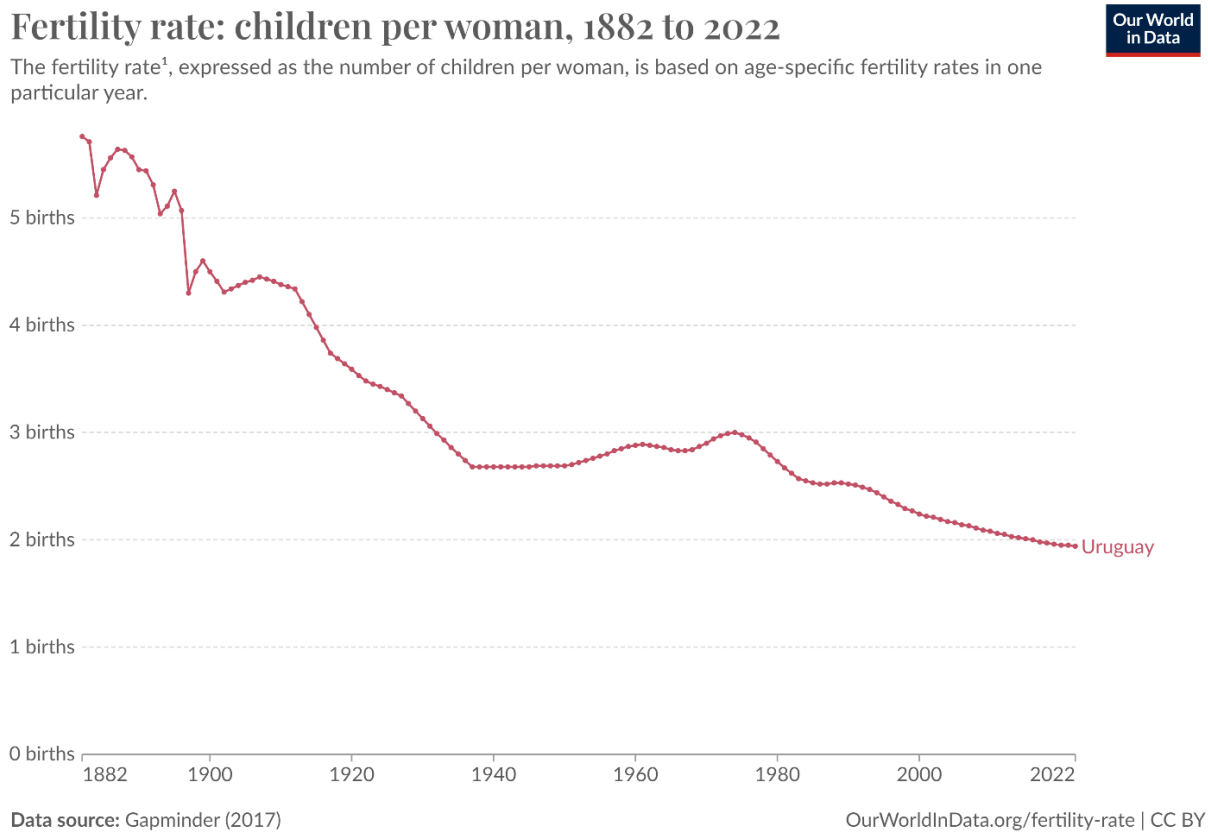

Figure 2.4: Fertility Rate: Children per Woman, 1882 to 2022. Gapminder (2017) – with minor processing by Our World in Data

These fertility rates suggest that Uruguayan women were having an average of 5 children in the late 1880s. This fertility rate is the country average, while unaccounted for here, family sizes were frequently larger in rural Uruguay, VULC informant CANF82 born in Colonia in 1939 is one of 13 children, when the country average was 3 births per woman.

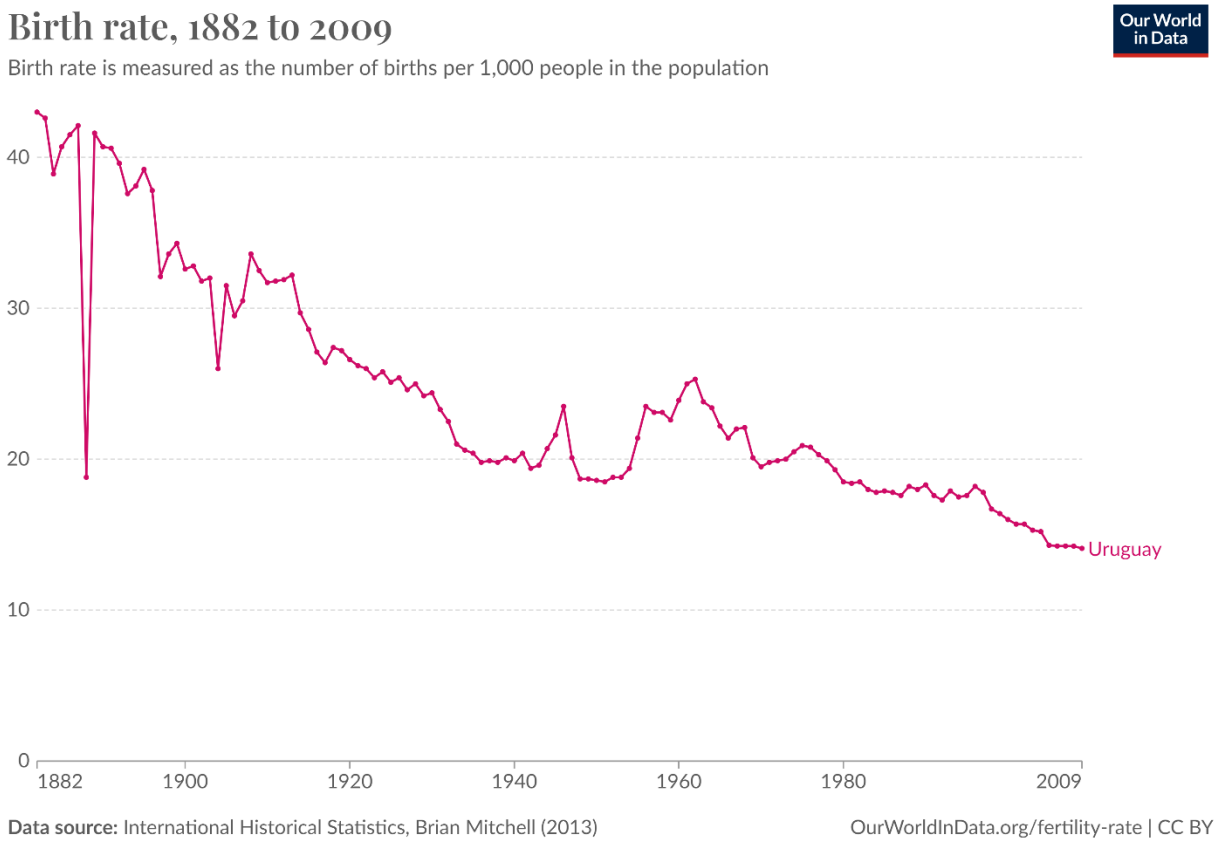

Figure 2.5: Birth Rate in Uruguay, 1882 to 2009 (International Historical Statistics & Mitchell, 2013)

Each of these children would populate the census as Uruguayans rather than immigrants, despite the origin of their parents. To better understand how these births affect the total population count, we take as a sample the last eight years leading up to the 1908 Census. In Uruguay, between 1900 and 1908, there were, on average, 32,095 live births each year. Accounting for each year's average deaths, in the same time frame, of 13,632, the average natural change in population was 18,463 people nationwide each year, with an average net increase of 18.13 people for every 1000 inhabitants, a net population increase of 1.813% each year. Looking at Durazno and being conservative[6] with the math by applying a population

[6] Also, in using the population increase percentage tired to the national average, these figures are additionally conservative seeing as women in the interior often had more children than urban residents.

increase percentage taken at the end of the period in question, during which the average fertility rate was lower (4.4), we can extrapolate that in 1860 the Durazno population of 8,973 inhabitants would grow exponentially at a rate of 1.813%, such that in 48 years the population of Durazno, without additional immigration, would reach 21,127 inhabitants, a natural percent increase of ~135%. This suggests that half of the population growth we see in the Durazno census is a direct result of childbirth rather than immigration. That is not to say the remaining 21,198 inhabitants in Durazno, according to the 1908 Census, are all immigrants. Had everyone that was going to immigrate to Durazno done so in 1860, in time for the Census, the fewest immigrants needed to settle in Durazno would be ~9000 people. Of course, migration works differently. People trickle in over the years, and not all of them need to be foreign-born to help increase the population exponentially. Had most of these immigrants been Spanish, as Martinez (2011) suggests, and had they trickled in over the 48 years, their addition to the population would have less of a linguistic effect on the population. A much different picture is painted by Goebel (2010) for Montevideo, where one in every two Montevideo residents was an immigrant in 1889. Lastly, the data from Figures 2.4 and 2.5 further illustrate why the population growth in Uruguay is increasing at a much slower rate today. Women averaged 1.94 births in 2022, and the birth rate has decreased 148% since 1882, as of 2009. At this rate, the population of Uruguay will begin to decrease year after year.

2.4.2.2 European Immigration

After the Great War, Uruguay had greater stability, and immigration increased, primarily from Spain and Italy. The Spanish and Italians together made up 70% of all European immigrants to Uruguay from 1850 to 1930 (Goebel, 2010; Oddone, 1966). This section turns to the key migration study by Goebel (2010), which provides evidence of the changing ethnic

landscape of Uruguay between 1880 and 1930, and this dissertation makes use of his findings to extrapolate the linguistic consequences of the mass migration to what was a relatively underpopulated Uruguay. To demonstrate how immigrants influenced Uruguayan society, Goebel (2010) first addresses the main obstacle of "the scarcity of usable quantitative sources. Even the statistics normally used to determine the net inflow of European immigrants to Uruguay were seriously flawed, mainly because they failed to record the true extent of on-migration to Argentina" (p. 194), meaning immigrants that first arrived in Uruguay but later continued to Argentina. Additionally, Goebel notes that "nationwide and departmental censuses never discriminated by religion, region of origin or nationality of parents. In many categories, such as breakdowns by age, the only distinction was between Uruguayan and foreign citizens, lumping together significant numbers of Brazilians and Argentines with Europeans" (2010, pp. 194–195).

Furthermore, the conferment of citizenship based on birthplace instead of descent meant that children born in Uruguay to European immigrants (i.e., *criollos*) populated the statistics as Uruguayans (pp. 194–195). Given these issues, Goebel's principal source is a sample of 5,056 marriage records from the Civil Registry[7]. Goebel samples eight census districts, five in Montevideo and one each in Canelones, Colonia, and Paysandú. Each "had a percentage of foreign-born above the department average" (2010, p. 195). These marriage entries listed the name, age, occupation, place of birth and the literacy of spouses, and nationality and occupation of both sets of parents (p. 196).

Goebel (2010) points out that "Uruguay became the destination for European emigrants from Spain and Italy before Argentina did" (p. 196), in large part because of the xenophobic tendencies of the Governor of Buenos Aires Juan Manuel de Rosas (1829-32 & 1835-52).

[7] The Civil Registry was founded in 1879. Therefore, Goebel (2010) limits the range of his study to 1880-1930 rather than 1850.

Montevideo served as “a haven to political exiles from Argentina as well as growing numbers of Europeans” (p. 196). In 1845, Domingo Faustino Sarmiento, an Argentine writer and statesman, observed that:

> the inhabitants of Montevideo are neither Argentines nor Uruguayans; it is the Europeans who have taken possession of a point of American soil. …The Genoese navigate the Río de la Plata as the owners and the crew of coastal shipping…the Basques with their broad shoulders and their iron nerves exploit the quarries in their thousands, the Spanish occupy in the market the place of food hawkers. (Sarmiento, 1845-1847 (ed. 1993), pp. 27–28 translation by Goebel (2010, p. 196))

According to the census of 1860 (INE – Uruguay), of the 57,913 inhabitants of Montevideo 57,864 provided by Goebel (2010, p. 196), 48% were foreigners. To drive home the significance of this percentage on linguistic input, this means that nearly one out of every two people in Montevideo was born abroad. In comparison, 36% of the 91,395 inhabitants of Buenos Aires were foreign-born in 1855 (Goebel, 2010, p. 196). Once again, notice the small population sizes, within which a significant increase can have a sizable impact. While the Buenos Aires percentage is lower, in terms of foreign-born residents, Buenos Aires at this point had more immigrants (32,902) than Uruguay (27,798). This means that of Montevideo’s 27,798 foreign-born residents, “28% were Spaniards, 27% were Italians, and 22% were French, by all accounts mainly Basques. From early on, immigrants in Uruguay concentrated in the capital city. Of the country’s rural population (165,222) [whereas the 1860 Census calculates 171,567 inhabitants in the rest of the country], only 29% were foreigners, with Brazilians constituting the largest group” (Goebel, 2010, p.196 citing Moya (1998) & AEROU (1902-3)).

Due to Uruguay's natural port at Montevideo and its geography relative to Europe, until the turn of the century, Montevideo was typically the first stop on the Río de la Plata for incoming ships from Europe. However, despite Uruguay's disposition to welcome European immigrants, it did not have legislation to promote immigration until 1890, when an economic recession sparked two years of emigration. Once immigrants began arriving, they would send for relatives and friends, typically from their region of origin. While immigration was briefly interrupted in the 1890s and during the First World War, immigrants kept arriving in Uruguay until the early 1930s, when the authoritarian government of Gabriel Terra (1931-1938, dictator 1833-38) enacted laws to curb the flow (Goebel, 2010, p. 197).

All these population numbers invite the question: How many European immigrants eventually made Uruguay their new home? The number of European immigrants to Uruguay is difficult to estimate given unreliable entry statistics and the fact that on-migration or exits to Argentina were under-recorded. For years 1880-1930, estimates range from 579,000 (The Cambridge History of Latin America) to 419,882 (based on the net balance of movement in the port of Montevideo). A more conservative estimate provided by Rodríguez Villamil and Sapriza (1983) stands at 273,000 European (net) immigrants. "Of these, 31% were Italians, predominantly in the 1880s, and 34% Spanish, most of which arrived after 1900" (Rodríguez Villamil & Sapriza, 1983, as cited by Goebel (2010, pp. 197-198)).

Based on a Departmental Census in 1889, the population of Montevideo was 215,061, of which 47% were immigrants. Thus, 29 years after the last National Census, nearly every other resident was born abroad, even though the population had increased by 271.3%. Of the 47% or 101,078 immigrants, 47% were Italian, and 32% were Spanish. In 1908, Montevideo's population was 309,231, of which 30% (92,769) were immigrants (Goebel, 2010). Based on

these numbers, Montevideo appears to have lost 8,309 immigrants in the span of nine years, which could mean that they moved to other departments, to Argentina, or returned to their country of origin, and naturally, some could have died. Of these 92,769 immigrants, 43% were Italian, and 36% were Spanish.

Outside of Montevideo in 1908, there lived 733,455 inhabitants. In contrast, only 12% were foreigners, largely Brazilians, who were concentrated in the northern parts (Goebel, 2010). Martínez (2011) states that the "majority of the immigrants to Durazno were Spanish, Italian, French, British, and Brazilian" (p. 5 my translation). This pattern is in keeping with the trends throughout the country. However, without further information about immigrant percentages for Durazno as a total of the population by origin, it is difficult to speculate the linguistic influence of the different groups. Since Martínez (2011) mentions Spanish first, it is probable that this was the largest group, and by mentioning Brazilians last, they likely constituted only a small part of Durazno's immigrant population. Despite what Goebel (2010) estimates would be low percentages of foreign-born in the interior, Durazno's population increased by 371% in the 48 years between 1860 and 1908, only half of which can be attributed to growth for births, as covered in Section 2.4.2.1 above, unless births in Durazno were above the national average.

With increased infrastructure, railroads, and its brief political prestige, Durazno may have attracted additional residents. However, most other Uruguayan departments show very large population growth during this time, suggesting the increase did not come at another department's loss. How to account for this population growth in the interior departments is a conundrum that this dissertation is not designed to resolve. "In rural Uruguay, Italians and Spaniards concentrated in the southern and western departments, together making up 10% of the population in the departments of Colonia, Canelones, and Paysandú (Goebel, 2010, p. 198 citing AEROU

(1889 & 1907-8[8])), which Goebel states had a percentage of foreign-born above the department average (2010, p. 195). There was not much land available for immigrants in rural Uruguay in comparison to Argentina, which led to a wide social gap, with subsistence farmers and day laborers on the low end and the owners of the large lands on the high end, which focused on raising livestock, for whom the day laborers may find temporary employment (Goebel, 2010, p. 198). This much smaller estimated immigrant population percentage of 10-12%, compared to Montevideo's nearly 50%, could certainly lead to differing linguistic trends. Between 1908 and 1963, Durazno's population increase drastically slowed, increasing only ~26.7%, in comparison to Montevideo's ~149% increase, and has remained relatively flat from 1963 to 2011, as has the population of most of the country due to the decrease in fertility rates.

From the 1870s, Argentina began to outpace Uruguay as a destination for European emigrants, in terms of absolute numbers and population percentage. This trend is attributed to the more favorable macroeconomic and political developments in Argentina and the greater availability of land. Since immigrants tend to go where they already have friends and family, and seeing as there were more Europeans in Buenos Aires by the 1850s, Buenos Aires was in a better position to attract a self-sustained in-flow of immigrants from early on (Goebel, 2010, p. 202). Rather than permanently settling in Uruguay, it was primarily a country of transit for immigrants within a broader migratory circuit. Between 1874 and 1901, no more than 1,596 foreigners became Uruguayan citizens (Zubillaga, 1993, p. 83). While there was little pressure to assimilate and few advantages to becoming a citizen, it is also true that return rates were high in both Uruguay and Argentina. Part of this rate of return may be accounted for by those that traveled for

[8] I have not been able to access this Census data for 1889 or see immigrant percentages as presented. Therefore, I hereby rely on and am limited to the analysis conducted by Goebel (2010). Additionally, I judge these findings to adequately address the needs of this dissertation.

the seasonal harvests (Goebel, 2010). For Argentina, rates of return were estimated at 46% for Spaniards between 1857 and 1930 (Moya, 1998, p. 1) and 51% for Italians between 1880 and 1920 (H. S. Klein, 1983, p. 319). “Contrary to common assumptions about migration as a linear movement from one place to another, many ‘immigrants’ to Uruguay travelled back and forth between different places in various countries and many, perhaps a majority, never intended to settle permanently” (Goebel, 2010, p. 204).

Given the extensive linguistic variation in Spain, Italy, and France, and more so in the late nineteenth and early twentieth centuries, it is of linguistic importance to this study to explore the regional origins of the immigrants within their countries of origin. Goebel (2010) sheds light on this subject using marriage records in Uruguay that list the place of birth of the bride and groom and the nationality of both sets of parents, among other things noted previously.

2.4.2.2.1 Spanish Immigration

Regarding emigration from Spain, Basques were the predominant group in the 1850s, but, as in Argentina, Galicians became the largest group by far from the 1880s, especially in Montevideo, constituting 65% of the 210 Spanish grooms for that decade, rising to 70% for both the 1900s and 1920s. Still today, in both Uruguay and Argentina, the term *gallego* (Galician) is used for all Spaniards. In Montevideo, Catalans constituted the second-largest Spanish sub-group until 1910. In rural Uruguay, immigrants were predominantly Basques from both sides of the Franco-Spanish border until the 1900s. There was a notable concentration of Canary Islanders in Canelones, which was “a group that played virtually no role in Spanish immigration elsewhere in South America” (Goebel, 2010, p. 201). To this day, residents of Canelones are called *canarios* (Canary Islanders). “Castile…was of little relevance as an area of emigration to both Uruguay and Argentina, while Andalusia was virtually insignificant” (Goebel, 2010, p. 201).

Figure 2.6 highlights the regions of origin of Spanish immigrants to Uruguay. It is worth noting that the Spanish immigrants all emigrated from bilingual regions. The Spanish and Italian immigrants from less common origins tended to be more skilled and educated than those emigrating from more frequent origins (Goebel, 2010, p. 201). Spanish spouses had lower literacy rates than the Italians, especially among women. The Galician women were mainly responsible for the low literacy rates, while Catalans came from more urban backgrounds and tended to be more literate. In comparison, northern Italian grooms had higher literacy rates than southern Italians (Goebel, 2010, p. 201).

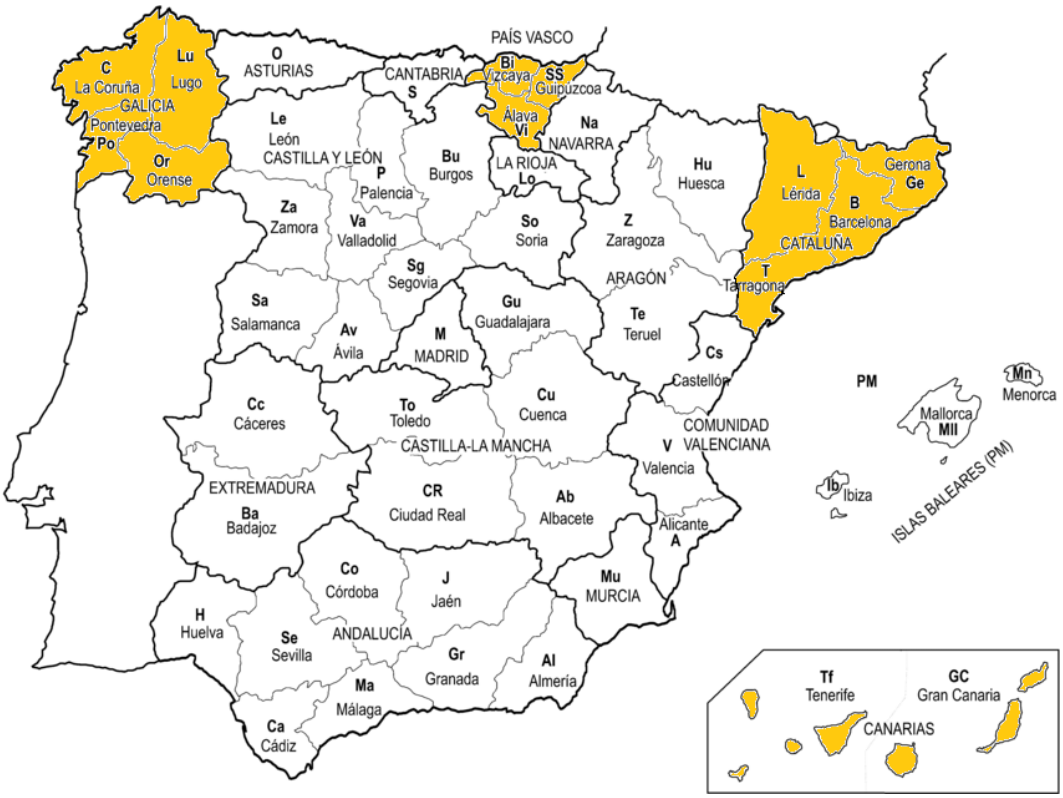

Figure 2.6: Regions of Origin of Spanish Immigrants to Uruguay
(Tardío & Pardo de Santayana, 2014). Color added.

2.4.2.2.2 Italian Immigration

Regarding emigration from Italy, central Italy remained rather unimportant as an area of emigration. In the 1880s, Italians still came predominantly from the north, 65% of the Italian

bridegrooms who were married in Montevideo and rural areas came from Liguria, Piedmont, and Lombardy. Immigrants from the Mezzogiorno (southern Italy) came second. In the 1880s, 27% for Montevideo and 30% for the other departments (i.e., Colonia, Canelones, and Paysandú) came from Campania, Calabria, and Basilicata (Goebel, 2010, p. 200). Figure 2.7 highlights the regions of origin, both north and south, of the Italian immigrants to Uruguay. By 1910, there were still fewer southern Italians in rural Uruguay, but in Montevideo the number of southern Italians surpassed that of northern Italians with 50% southern, 42% northern among all Italian husbands. In the 1920s, southern Italians continued to increase making up 58% of Montevideo's Italian grooms (Goebel, 2010, p. 200).

Figure 2.7: Regions of Origin of Italian Immigrants to Uruguay

It is important to note that these are based on marriage records. Therefore, if the Italians did not marry, were possibly already married in Italy, or were married in a department for which Goebel (2010) does not have marriage records, these would go unaccounted for here. It is also possible that southerners, having settled in the city rather than buying land on the outskirts of Montevideo like many northern Italians, being more mobile, continued to Buenos Aires and are thus unaccounted for here. Evidence for these possibilities stems from emigration records from Italy that indicate a high proportion of southerners among emigrants to Uruguay: 78.3% in the 1890s, 69.3% in the 1900s, and 71.8% in the 1910s (Goebel, 2010, p. 200 citing H.S. Klein (1983)). In sum, according to the marriage records "northern Italians arrived earlier and settled more often in the countryside, while southerners came later and stayed predominantly in the port city of Montevideo" (Goebel, 2010, p. 200). Understanding the number of immigrants and their origins is key to determining the influences that shaped the linguistic landscape in Argentina and Uruguay. The uniqueness of BAS intonation has been linked to influence from Italian (Colantoni & Gurlekian, 2004). Since the resulting linguistic features of this historical language contact situation are known, UYS can be analyzed and compared to BAS. Uruguay experienced similar, though possibly less influence from Italian because of on-migration to Buenos Aires or immigrants returning to Italy. Therefore, it stands to reason that this lesser degree of Italian influence could be encoded in Uruguayan speech; this topic is covered in detail in Chapter 3.

To recapitulate, while more detailed immigration counts are available for Montevideo than Durazno, the estimated total number of net immigrants to Uruguay varies greatly. Nevertheless, it is safe to conclude that the number of immigrants that settled in Montevideo is higher than those that settled in Durazno. Specifically, the number of Italian immigrants was higher in Montevideo. Considering the findings by both Goebel (2010) and Martinez (2011) it is

probable that most of the immigrants that settled in Durazno were Spanish, possibly Basques. Other groups also settled in Durazno, including indigenous groups and Uruguayan citizens migrating from other departments to Durazno to improve their quality of life after the many wars.

2.5 Languages in Contact

Uruguay and Argentina, especially Buenos Aires, were the recipients of massive numbers of immigrants from northern and southern Italy and from Spain, especially Galicia, Basque Country and Catalonia, from 1850 to 1930. Prior to this influx of European immigrants, these countries had relatively small populations, which invites the question: how would the languages and dialects of these immigrants impact the Spanish spoken in the region? Before examining the claims that have been made for the resulting linguistic systems in the region, I briefly explore the theoretical underpinnings of languages in contact.

The Founder Principle suggests that when languages are in contact, leading to new feature-competitions, features of the founder variety often have a selective advantage, in part, because populations do not typically double or triple overnight, but rather population growth is achieved by installments (e.g., waves of immigrants). In this way subsequent groups join previous groups that have already begun to adopt the local language and thereby begin the same process rather than attempt to replace the more common linguistic system. (Mufwene, 1996, p. 123). Language contact is a two-way street, where the founder language, being more established in society, may choose to borrow from the immigrant language. This borrowing mostly occurs with lexical items, though often with reduced or expanded semantic properties. On the other hand, the immigrant language tends to impose or transfer phonological and grammatical structures of their L1 on to the L2 as part of the SLA process (Howell, 1993).

Phonology and grammar are more stable than vocabulary and therefore in both the source language and the receiving language the phonology and grammar are better preserved. However, even within these stable structures there are differing degrees of stability such that "word order patterns transfer more easily than embedding strategies" (Winford, 2005). This stability of phonology and grammar explains why the founding language does not readily change the fundamental components of its linguistic system when language contact occurs, but rather adopts vocabulary, which depending on the degree of bilingualism may be pronounced like the source language or the receiving language. In short, the founder language, as spoken by native monolinguals, is less affected by the incoming language. On the contrary, the imposing language transfers many aspects of its phonology and grammar onto the founder language through the SLA process, such that these immigrants may speak the founder language with an "accent" or maintain grammatical forms from their L1. Segmental sounds from the source language can be transferred to the monolingual speakers of the receiving language through the adoption of lexical items whose original pronunciation is maintained (Matras, 2009, p. 222). This "process typically occurs in situations where bilingualism is fairly widespread. Bilingual members of the speech community, who are aware of the original, donor-language pronunciation, make an effort to authenticate the borrowed word by replicating its original phonology" (Matras, 2009, p. 223). This replication can spread to monolinguals of the receiving language, especially if the source language enjoys some form of prestige (p. 223). Convergence occurs when "speakers are uncomfortable maintaining the separation of phonological sub-components withing their repertoire and seek to draw instead on just a single inventory…In a community of second-language learners, this may be due to a reluctance or inability to acquire full command of the phonological system of the target language. As a result, words in the target language are

produced with the phonology of the native language. The substrate effect may lead to a group-particular 'accent'" (p. 223).

Matras (2009) notes that "Phonological replication – or 'interference', 'transfer' or borrowing' – may affect any level of sound structure: the articulation of individual phones or phonemes within words, length and gemination, stress and tone, prosody and intonation" (p. 222). Furthermore, "[p]rosody seems to be more prone to cross-linguistic replication in contact situations than segmental phonology" (p. 231). Matras (2002), studying Romani, finds that prosody is at the top of the hierarchy of adopted features. Matras (2009) notes that:

> The high susceptibility of prosody to contact might be a result of two inter-connected factors. The first is the peripheral role that prosody has in conveying meaning and the fact that it is prototypically a form of expression of emotive modes, operating at the level of the speech act and the utterance, rather than the word level. This allows speakers to mentally disconnect prosody more easily from the matter or shape of words associated with a particular language, making it prone to change and modification in contact situations. The second factor may be the proven neurophysiological separation between prosody and other aspects of speech production…making prosody more difficult to control. Both factors may contribute to the fact that foreign 'accents' are most persistent in the area of prosody" (p. 233).

Thomason and Kaufman (1988) assert that "prosodic features of the original native language are very frequently maintained in a shifting group's version of a TL; intonation is one of the most striking features of both Irish English and Indian English, for instance… Shifting speakers maintain their original language's prosodic patterns if they haven't learned those of the TL. But immigrants who have succeeded in learning the prosodic patterns of [the TL] may use those patterns so often in speaking the TL, and their own so seldom…that they replace the native patterns with the ones borrowed from the TL" (p. 42). Burridge (2007) finds that intonation characteristics of Pennsylvania German are transferred into the English of Canadian Mennonites. This ability to transfer intonation, or for intonational systems of multiple languages or dialects to

converge, is of particular interest to this dissertation since such claims have been made in Spanish varieties in contact.

A counter claim to the previous idea of transfer is that the intonation changes observed when languages are in contact, in reality, is koineization (Kerswill, 2013) where *immigrant koines* or *new dialects* (Trudgill, 1986, p. 83) are formed. Koineization is composed of three processes, namely mixing, leveling, and simplification. Mixing refers to "the presence of features from different input varieties" (Kerswill, 2013, p. 521). Leveling is "the reduction or attrition of marked variants" (Trudgill, 1986, p. 98). To illustrate these processes Kerswill (2013) uses an example by Siegel (1997) of Indian Hindi dialects and Fiji Hindi grammar. The contact situation was brought about in the late nineteenth to early twentieth centuries due to the shipment of Indian indentured laborers to European colonies (Mesthrie, 1993). The resulting Fiji Hindi differs from the dialects in contact while maintaining features attributable to one or more of the contact varieties. "The manner in which variants have been selected from the range of possibilities provided by the input dialects is an example of leveling. At the same time, the table shows extensive simplification, involving the loss of distinct suffixes for the first and second persons singular and plural, the third person singular and plural, and a failure to adopt the gender distinction in the second person found in one of the contributing dialects" (Kerswill, 2013, p. 522). In the case of intonation, late peaking pitch accent L+<H* would be considered 'marked' being in the "minority in terms of the dialects that have been transplanted to the new territory" (Kerswill, 2013, p. 521 citing Trudgill 1986), as will be more completely covered in Chapter 3. Therefore, L+<H* was arguably less likely to be preserved.

Thomason and Kaufman (1988) theorize that "it is the sociolinguistic history of the speakers, and not the structure of their language, that is the primary determinant of the linguistic

outcome of language contact. Purely linguistic considerations are relevant but strictly secondary overall" (p. 35). For this reason, this chapter has sought to establish the nature of the language contact situation in Montevideo and Durazno, relative to Buenos Aires.

Since imposition/transfer begins as a side effect of SLA, transfer features will enter the receiving language rapidly, "though the adoption of these features by original TL speakers may take more time" (Thomason & Kaufman, 1988, p. 41). Additionally, "attitudinal factors can influence the degree to which original TL speakers will imitate the altered TL as spoken by shifting speakers, but such attitudes do not seem to protect a TL from interference if the shifting group is numerically strong" (Thomason & Kaufman, 1988, p. 43). This chapter has demonstrated that the Italian immigrant populations were numerically strong, and their Italian ancestry and culture are embraced to this day, suggesting a positive attitude toward the immigrant speech community, thereby furthering the possibility that Italian intonation may have influenced BAS, and potentially UYS.

Thomason and Kaufman (1988) turn to the sociolinguistic factor of "intensity of contact" noting that if the number of source language speakers "is very small relative to the TL speaker group, there will be little to no interference [i.e. imposition/transfer] in the TL as a whole" (p. 47). This is expected because these few speakers will have increased access to native speakers, rather than being sheltered within their own linguistic communities, which would have the opposite effect by reinforcing the learner's errors. Also, little to no interference is expected from speakers that already speak the TL (p. 47). As it pertains to Buenos Aires, Argentina and Uruguay where Spanish is the founder language, Galician, Basque, and Catalonian immigrants may have imposed less on the target variety than Italian immigrants if the former were bilingual in Spanish. However, with each of these groups immigrating from language contact areas and

provided the research on their intonation patterns, it suggests that Galician and Galician Spanish employ the same intonation (Fernández Rei, 2007, 2016), similar to that employed in BAS, and that Spanish in contact with Basque (i.e., Basque Spanish) prefers early peaking (Elordieta, 2003) like BAS, though in this case neither Peninsular Spanish or Basque prefer early peaking.

When comparing the numerous intonational studies across languages in contact there appears to be three main results[9]: 1) the receiving language intonation appears unaffected by the language contact situation (e.g., the NEAS population (Colantoni, 2011)) 2) the receiving language adopts aspects of the source language intonation (Colantoni & Gurlekian, 2004) or 3) that the resulting intonation patterns are different from both languages in contact (Elordieta, 2003; Queen, 2001), perhaps representing a type of middle ground, arguably as a result of koineization.

Spanish in contact presents researchers with an additional complication in that Spanish in contact typically leads to early prenuclear peaks (see Section 3.2.2) (Colantoni & Gurlekian, 2004; Elordieta, 2003; Hualde & Schwegler, 2008; O'Rourke, 2004), this intonational contour however also often mirrors that of the source languages in many cases (Colantoni & Gurlekian, 2004; O'Rourke, 2004) because early prenuclear peaks appear to be very common. Rather than attributing early peaking to language transfer, as researchers we ought to be cautious and consider koineization which can produce the same results.

Colantoni (2011) acknowledges this debate, stating: despite the demonstrated resemblance of BAS and Italian intonation "it is not yet clear whether the differences observed [between BAS and other varieties] are … a result of language contact in general as opposed to contact with a specific language" (p. 184). To address this issue Colantoni (2011) compares BAS

[9] For many more examples see Elordieta and Romera (2021).

intonation with three other Argentine varieties, one in contact with Guaraní (NEAS) and two non-contact varieties, hypothesizing that if language contact in general leads to these features, that BAS should share these features with NEAS, however, Colantoni concludes that it does not. Spanish intonation in contact with Guaraní peaks later than in BAS in prenuclear position, and, in nuclear position, BAS preferred a falling F0 whereas NEAS preferred a rising F0. "The fact that early peak alignment has been reported for prenuclear accents in other Spanish varieties in contact is not merely the result of contact in general but the consequence of contact with a specific language…we can conclude that the differences observed between BAS and the other varieties point towards the direction of convergence with Italian and divergence from other Argentine varieties" (Colantoni, 2011, p. 207). To Colantoni's point, BAS Spanish, as will be more completely covered in Section 3.2.6, resembles Italian intonation beyond the prenuclear environment frequently compared in the studies mentioned above, leading to similar nuclear and narrow focus marking contours.

However, while Colantoni (2011) compares what may have originally been a similar Spanish variety in contact with two different languages (i.e., Italian and Guaraní), intensity of the contact plays a role in the adoption of linguistic features. "Ethnographic factors such as the demographic proportion of the newcomers relative to the local populations, their attitudes toward each other, and their social status bear also on how the systems in contact emerge from the competition" (Mufwene, 1996, p. 86). Given the lack of adoption of Guaraní features by NEAS speakers, but rather the preservation of Peninsular Spanish intonation patterns (Colantoni, 2011), this may do more to suggest that the intensity of contact in NEAS was insufficient to produce the changes commonly attested in language contact situations.

The context of Buenos Aires and Uruguay lend themselves to convergence given the historical "[e]merging bilingualism; stable minority bilingualism; emergence of ethnolect or language shift" (Matras, 2009, p. 225) as hundreds of thousands to millions of immigrants sought to make a new life for themselves while maintaining a "[s]trong group identity coupled with a need (pressure) to acquire the target language" (p. 225). In such a situation, the target language is "systematically adjusted to match the sound patterns of the native language" (p. 225), this could include intonation. These factors suggest that Italian immigrants in Buenos Aires and Uruguay could have retained their Italian intonation patterns when speaking Spanish. Given the seemingly positive attitude toward the immigrant community, the establishment of minority speech communities and schools in the minority language in Buenos Aires (Colantoni, 2011), and the susceptibility of prosody to contact (Matras, 2002, 2009). The Spanish of the region may have been affected due to the number of immigrants compared to the founding population. Whether it was language contact in general or the specific languages in contact, BAS intonation has clearly undergone a change, which seems to resemble modern Italian intonation from the regions of origin as will be covered in detail in Chapter 3. These patterns also appear to have been reinforced by Galician, Galician Spanish intonation, and Basque Spanish.

A prosodic comparison of present-day language systems has its limitations when looking backwards to understand how their historical language systems may have interacted. Despite the inherent linguistic variation present in any population, the differing origins of these immigrants, and the high levels of illiteracy among them suggests that they likely where not using the 'standard' variety of their language or dialect, thereby making a clear comparison using modern standard varieties difficult. Nevertheless, analyses of modern varieties are all we have for intonation.

2.6 Dialectal Zoning

2.6.1 River Plate Spanish

Latin American Spanish (LAS) is not a homogenous variety, nor should that be expected, given the differing histories that shaped each region, nation, community, family, and individual. The different linguistic varieties observed throughout Latin America have been and continue to be documented, and such documentation has shown specific linguistic patterns among groups of speakers. These linguistic patterns have been shown to vary along three parameters: 1) geographical – diatopic variation, 2) social (age, sex, race, class background, education, occupation, and income) – diastratic variation, 3) style/register – diaphasic variation. These parameters are independent, but variants found along one parameter may be similar or identical to variants found along another. Thus, some variants transcend parameters. This section only addresses the topic of diatopic variation.

Naturally, the first attempts to demonstrate the heterogeneity of LAS were overly simplistic and subject to scrutiny; the proposal by Pedro Henríquez Ureña in 1921 was no exception. Henríquez Ureña (1921) established five dialectal zones for LAS, and these zones were based on three criteria: 1) geographic proximity, 2) political and cultural ties, and 3) the indigenous substrate, as discussed in Section 2.4.1. Seeing as the Spanish spoken in Uruguay and its relationship to the Spanish of Buenos Aires, Argentina, are of specific interest to this dissertation, I provide here only the data relevant to these countries, for a more complete history see Alba (1992). As Alba (1992) outlines, years later other authors began to criticize the oversimplified nature of Henríquez Ureña's five dialect zones, eventually leading to a more

detailed dialectal zoning by Rona (1964) based on four criteria: one phonetic, *el žeísmo*[10]; one phonological, *el yeísmo*[11]; one syntactic, *el voseo*[12]; one morphological, the verbal forms used with the pronoun *vos*[13]. These new criteria established 16 Spanish zones and an additional 7 language-contact zones. This zoning divided Uruguay into four zones illustrated in Table 2.2 Based on the criteria, zones 15 and 19 share the same features, as do zones 16 and 20, but are here separated because of the mixing with Portuguese in the second of each pair. Ultimately, what Rona (1964) demonstrates is that some Uruguayans use *voseo* while other use *tuteo*, and that in the northern departments (i.e., the *fronterizo* zone) there is language contact with Portuguese. These topics are still highly studied today, especially the interface of Portuguese-Spanish along Uruguay's northern border (Amaral & Carvalho, 2014; Boller, 2002; Carvalho, 1998, 2006, 2016; Castaneda Molla, 2011; Douglas, 2004; Elizaincín, 1979, 2004; Hensey, 1971, 1982b, 1982a; Lipski, 1994; Waltermire, 2008, 2010, 2012, to name a few).

Zone	Description	Yeísmo	Žeísmo	Voseo	Form
15.	The "*gauchesca*" provinces of Argentina (approximately Buenos Aires, Entre Ríos, Santa Fe, La Pampa, Rio Negro, Chubut, and even Tierra del Fuego) and Uruguay (except for the '*ultraserrano y fronterizo*' zones).	Yes	Yes	Yes	-ás -és -ís
16.	The 'ultraserrano' zone of Uruguay (the Rocha, Maldonado, part of Lavalleja and Treinta y Tres departments)	Yes	Yes	No	--

[10] *El žeísmo*, also called ʒeísmo, refers to a historical merger of the Castilian phonemes /ʎ/ and /ʝ/, with /ʒ/ as the resulting phoneme. In such dialects, graphemes <y> and <ll> are pronounced [ʒ]. More common today is the voiceless allophone [ʃ] hence *sheísmo* or ʃeísmo.

[11] Majority pronunciation in Spanish in which the older palatal lateral phoneme /ʎ/ has merged with /ʝ/, so that orthographic *ll* is pronounced the same as orthographic *y*. By this definition, el *žeísmo* is a type of *yesísmo.*

[12] *El voseo* is the use of *vos* as a second-person singular pronoun, along with its associated verbal forms (e.g., *vos cantás*). This paradigm is often in place of *tuteo* or the use of the *tú* pronoun and associated verbal forms (e.g., tú cantas). In Uruguay, however, both paradigms are used.

[13] The associated verbal forms that accompany the second-person singular pronoun *vos* vary geographically and, therefore, are indicators of different LAS dialects (e.g., Arg./Uy. cant**ás** v. Chile cant**ái**)

19.	Fronterizo zone in Uruguay, except for the Tacuarembó variety.	Yes	Yes	Yes	-ás -és -ís
20.	Fronterizo zone in Uruguay, the Tacuarembó variety.	Yes	Yes	No	--

Table 2.2: The Linguistic Zoning of Uruguay (Rona, 1964, p. 220), adapted.

In preparing to carry out a massive canvasing of the country to create the *Atlas lingüístico Diatópico y Diastrático del Uruguay* (Thun & Elizaincín, 2000), the authors, who seek to study the geographical and social distribution of *el žeísmo/el sheísmo* as well as additional segmental sounds in the bilingual zone, establish a presumably bilingual zone along the Uruguay/Brazil border in the map presented in Figure 2.8. Recall that this dissertation analyzes and compares Montevideo and Durazno speech, both of which are outside the bilingual zone. These departments belong to Zone 15 (Rona, 1964), meaning speakers in both departments use *voseo* and *el žeísmo*[14], as does Buenos Aires, Argentina. Therefore, based on the research conducted to date, excluding general linguistic observations (Lipski, 2004) and linguistic impressions (García de los Santos, 2014), by all accounts, the speech of these areas should be very similar, a claim this dissertation explores for intonation in Chapter 3.

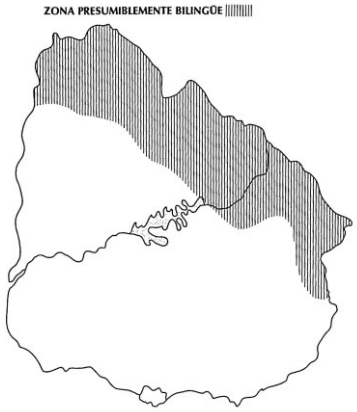

Figure 2.8: The Presumably Bilingual Zone of Uruguay (Thun et al., 1989, p. 53)

[14] As the completed ADDU (Thun & Elizaincín, 2000) finds, throughout Uruguay the voiceless variant of *žeísmo (i.e., el sheísmo)* is most frequent throughout Uruguay, whereas the voiced variant is preserved among the older generation.

While the influence of the historical and on-going language-contact situation with Brazilian Portuguese may persist more completely among rural speakers in northern Uruguay (see Elizaincín & Barrios, 1989), their speech patterns necessarily differ from those beyond such influence such as urban and rural monolingual Spanish speakers outside those language contact zones (e.g., Montevideo and Durazno). Also, while there are observable differences in urban and rural varieties of monolingual Uruguayan Spanish, I have not found studies addressing rural monolingual Uruguayan Spanish.

Another conclusion drawn from Rona's zoning efforts places most Uruguayans in the same dialect zone with speakers from Buenos Aires. This conclusion is echoed more recently by Lipski (2004), who asserts that "[w]ell over two thirds of all Uruguayans live in Montevideo, and in a sense Uruguayan Spanish is simply an extension of the *porteño* speech of Buenos Aires" (p. 337). As discussed previously in Section 2.2 regarding Uruguay's population and the national census, never has more than 46.34% of the total population lived in Montevideo. Even if Montevideo and Canelones were counted together, they would only make up ~56% of the total population, not two-thirds. Nevertheless, given the shared history and culture of Uruguay and Buenos Aires, Argentina, addressed in Section 2.3, and the main linguistic features they share (Fernández Trinidad, 2010; Rona, 1964), it is understandable why Lipski would make this broad generalization and say that one is simply an extension of the other. Certainly, this would apply more completely to Montevideo than Rocha where *tuteo* is used (Weyers, 2014) and the northern departments of Rivera and Artigas where the influence from Portuguese has been heavily studied as mentioned previously. Moreover, given the greater influence of Italian immigration on both Montevideo and Buenos Aires than on Durazno and other interior departments (see Section 2.4.2.2 above), together with the claims that Italian immigrants have affected the intonation of

Buenos Aires (Colantoni & Gurlekian, 2004), it stands to reason that all interior departments of Uruguay that experienced lower levels of Italian immigration (Goebel, 2010), and therefore less language contact, would differ linguistically from *porteño* speech. Lastly, many Uruguayans have an unfavorable opinion of *porteños,* based in part on how they speak. Lipski's claim would certainly garner disapproval from Uruguayans from across the country who see *porteños* and *porteño* speech as different. The linguistic impressions on this matter, as well as the findings of this dissertation, will be discussed in Chapter 6.

However, Lipski is not the only one who makes these generalizations. It is repeatedly mentioned in linguistic studies that BAS and, specifically, Montevideo Spanish (MS) are essentially the same, to the point that Fernández Trinidad (2010) selected informants from both cities as one homogenous group. Naturally, there continues to be social and stylistic variation among any geographical selection of informants. In fact, Fernández Trinidad (2010) was testing just that. By using socially similar participants from each country, she finds that more formal readings differed segmentally across informants from less formal readings and spontaneous speech.

2.6.2 Rural vs Urban

In his description of the Spanish of Uruguay, Lipski observes: "Uruguay can be divided into several linguistic zones based partly on geography, but more so on the urban-rural axis, and on bilingualism with Portuguese" (1994, p. 337). This quote is repeated without alteration in the second edition published in 2004 (p. 369). Having discussed the topic of geography and bilingualism with Portuguese in Section 2.6.1, this section evaluates Lipski's claim of "the urban-rural axis." Rona (1964) does not address the urban-rural axis mentioned by Lipski (2004). That is not to say it does not exist; it appears to be common knowledge that it does. The question

is, who is Lipski considering to be rural, and is this just an observation, or has it been studied? In Section 2.4.2, while discussing European immigration to Uruguay, rural would often refer to anywhere outside Montevideo because during that time rural life was the norm, in a country whose main industry was rural based. Today, and even in the 1990s and 2000s, those Uruguayans living in previously rural departments but otherwise disconnected from rural life are not the same as the rural day laborers of the past. The rural speakers in Uruguay today, those that are clearly perceived as such, are mainly those that continue to work in a rural industry, not those that live in small towns of 1000-2000 inhabitants on the outskirts of a slightly larger city of a given interior department.

Elizaincín and Barrios (1989) describe some characteristics of 'rural Uruguayan Spanish' and compare them to Montevideo Spanish, but these are segmental characteristics of the rural *fronterizo* varieties rather than monolingual Spanish speakers from rural Uruguay. Therefore, this work does more to separate rural *fronterizo* from Montevideo Spanish than illustrate the rural/urban divide mentioned in Lipski (1994, 2004). Elizaincín and Barrios (1989) explain that their initial intention was to provide data on "rural Spanish" to contrast it with "urban Spanish" but "[s]uch opposition, nevertheless, does not clearly emerge in the data we possess" (p. 63, my translation). They highlight that over half of the population lives in urban centers, mainly Montevideo, and that many people from rural areas have migrated to the cities, especially Montevideo. As a result, Montevideo's socio-demographic structure changed greatly as speakers from diverse regions interact and coexist (pp. 63–64). "From this point of view, it is not impossible to find speakers of "rural Spanish," with diverse degrees of assimilation to the urban dialects, in the city of Montevideo, and other smaller ones" (p. 64, my translation). While there was no detectable rural/urban variation in their data, and they pivot to rural *fronterizo* speech,

rural Spanish must indeed differ from urban Spanish in order for there to be "degrees of assimilation" to urban dialects. Lipski (2004) states, "rural speakers from the sparsely populated interior have linguistic characteristics[15] that do not appear in other areas" (p. 369, my translation). Despite this observation, the monolingual rural/urban divide in Uruguay has not been fully explored.

To this day, no studies clearly define what Lipski observed, despite highly rural speech being perceivable. Having done extensive fieldwork in Uruguay in 2022 for this dissertation, I observed the same rural/urban divide in monolingual Uruguayans and leave this for future research. Though empirical studies detailing the attributes of monolingual rural Uruguayan Spanish have yet to be adequately carried out, linguistic impressions given by Montevideo residents provide clues and potential hypotheses regarding the perceptual differences between speakers from different regions of Uruguay.

García de los Santos (2014) at first ignores any rural or *ultraserrrano*/eastern varieties by only dividing Uruguay into 2 "linguistic regions," one, a Spanish base variety[16] and the other a Portuguese base variety (p. 1355). Her division follows department borders in which only Artigas, Rivera, Tacuarembó, Cerro Largo, and Treinta y Tres are Portuguese based. In contrast, the *Altas lingüístico Diatópico y Diastrático del Uruguay* (ADDU) (Thun & Elizaincín, 2000) also includes Salto and most of Rocha. This deviation by García de los Santos suggests the influence of Portuguese in the region may be centering around departments with direct contact with Brazil. Salto has more contact with Argentina via the International Bridge Salto Grande than with Artigas to its north. As part of her interviews about linguistic attitudes, García de los

[15] Lipski used the word *esquemas*, which I have translated here as *characteristics* to remain equally as vague.
[16] García de los Santos uses the term *sustrato* meaning substrate. However, *base variety* is more accurate since substrate implies a language shift.

Santos broke the country down further into regions[17]. These regions were Northern Border, Interior, Rural/Countryside Zones, Littoral (west coast along the Uruguay River), East, Montevideo, and Settlements. García de los Santos gives a few examples for why her informants, 98% of whom are from Montevideo, claimed people from other regions speak differently. Some of these reasons are in line with linguistic studies (e.g., at the northern border, they mix Spanish and Portuguese), while another mentioned that the use of '*tú*' in the east is due to influence from Buenos Aires, which is inaccurate since it is the prolific use of *voseo* from Buenos Aires that is felt in Uruguay, and not *tuteo* (see Bertolotti, 2011). However, there was mention that Rural/Countryside Zones have a "distinct tune" and, in Settlements, a "different accent" (García de los Santos, 2014, p. 1366, my translation). These same informants discussed the speech of speakers from the Interior as having "*cantito*[18]", and that they "lengthen their words," and regarding residents of the Rural/Countryside Zones it was their "accentuation[19]" as well as "*cantito*" (p. 1371, my translation) that set them apart from Montevideo speakers. These linguistic impressions may have been more in line with what Lipski (2004) observed.

Research on rural Spanish intonation is a recently growing field. While nothing on this topic has been done in Uruguay or Argentina, to my knowledge, Coronado Hernández (2014) finds intonation contours in rural Mexico that differ from those documented for urban Mexican varieties. Similarly, González (2022) compares urban and rural Mexican intonation and finds not only differences between them but also among them between men and women. Roseano et al.

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[17] This was done using terms without providing delineated borders for each region, which would have ensured that each informant understood the terms the same way when judging.

[18] Commonly translated as a singsong-like tune, this same term is used across the Spanish-speaking world and does not refer to a common tune among them all but rather a tune that differs from their norm. For example, a Uruguayan would say a Chilean has a *cantito*, referring only to the tune, not their different *voseo* morphology.

[19] This likely refers to the placing of word stress on the "wrong" syllable. Common examples include: *podamos* vs. *puédamos* or *vayamos* vs. *váyamos*, the first of each set being prescriptively correct.

(2019) study Catalan intonation in Menorca and find that rural intonation is more resistant to intonational change, and therefore preserves different melodies from those of urban populations. They also find that rural males are not more resistant than rural females to intonational change as they had hypothesized.

2.7 Recent Influence of Argentinian Spanish within Uruguay

As covered in previous sections, Uruguay and Argentina share history and culture in many ways. From the beginning, they have had very similar and interconnected roots. In terms of immigration, the experiences of each were similar, but Buenos Aires began to outpace Uruguay as a destination for immigrants in the 1870s. In 1855, the population of Buenos Aires was 91,395 inhabitants, 57.8% larger than that of Montevideo, which was 57,913 in 1860. According to the 2022 Census in Argentina, the population of the Greater Buenos Aires area is 10,849,299 inhabitants, plus 3,121,707 for the population of the Autonomous City of Buenos Aires, which equals a total of 13,971,006 inhabitants (INDEC – Argentina, 2023). Meanwhile, Montevideo's population as of the 2011 Census was 1,319,108. While there appears to be some disagreement as to how much territory constitutes the (Montevideo) Metropolitan Area, the Municipality of Montevideo describes it as the entirety of the departments of Montevideo, San José, and Canelones, a combined population of 1,947,604 (INE – Uruguay).

After all the shared colonial history is relegated to the history books, Argentina and Uruguay remain neighbors which will naturally and necessarily interact. The question is, then, how might this uninterrupted, neighborly even brotherly, relationship influence the linguistic features of Uruguay? While this dissertation makes no attempt to establish causal relationships for the development of similar linguistic features in each country, it is important to consider the continued influence of Buenos Aires, as a much larger metropolitan area, on Montevideo, nearby

Uruguayan departments in western Uruguay, and the summer tourist destination that is Punta del Este, in the department of Maldonado.

As a much larger city, Buenos Aires takes center stage in many instances; it is common for Uruguayans, especially historically, to seek graduate degrees in Argentine universities, to travel to Buenos Aires for specialized medical care, as well as cultural events such as concerts and shows, professional trainings, and book fairs. Argentina also produces many television programs and films that are viewed in Uruguay, some of these films include both Argentine and Uruguayan actors.

The western Uruguayan departments of Río Negro, Paysandú, and Salto are extremely connected to Argentina. Since the largest cities in these departments are along the Uruguay River, which flows into the Rio de la Plata, there are bridges near each of their capital cities to cross into Argentine cities in the Province of Entre Ríos. Due to the ongoing financial crisis in Argentina, many Uruguayans living near these international bridges cross to Argentina only to fill their car's gas tank and return. Travel to Argentina, especially while it is so inexpensive for Uruguayans due to the favorable exchange rate, is especially common during Uruguayan holidays, commonly making headlines for the number of hours it takes to cross the bridge to Argentina. In the Department of Colonia, ferries cross the Río de la Plata daily.

While being interviewed for the Voces de Uruguay Linguistic Corpus (Goodale, 2022), one 67-year-old female resident of Colonia del Sacramento said, "Before there was cable TV [in Colonia], we would listen to Argentine TV and Argentine radio, we lived looking towards the other side of the Río de la Plata, and we did not hear about what was happening in Uruguay. We were more Argentine than Uruguayan; we knew who the ministers of the Argentine governments were, and we did not know who our own ministers were" (COLF67, my translation). Due to the

influence of Argentina, Colonia and other western departments were not selected for this dissertation but will be included in future work. Likewise, the department of Maldonado includes Punta del Este, a tourist hotspot frequented heavily by Argentines in the summer months. Residents of Maldonado, when interviewed for the Corpus, also expressed how this influx of Argentines has affected the linguistic landscape in the area. Moreover, many current residents of Maldonado were not born and raised there, making it an area where different ways of speaking converge. Montevideo is a key department of comparison in any linguistic study in Uruguay. Durazno, like much of the interior, has been mostly ignored in linguistic research. This dissertation examines it due to its limited influence from Argentina, Brazil, and Montevideo.

2.8 Conclusion

Most of Uruguay's population is found along its southern coast. The interior is a rural landscape dotted with smaller cities that house the majority of each department's population. From the 1790s to 1850, Uruguay was a developing colony and battlefield. After gaining independence in 1825, civil war ensued. After the war, the 1852 Census proves just how sparsely populated it was. Waves of Italians, first from the north and then primarily from the south, immigrated to Uruguay in the mid to late 1800s, as did many Spaniards, mainly after the turn of the century, from Galicia, Basque Country, and Catalonia. Most of these immigrants remained in or around Montevideo, and many are estimated to have moved on to Argentina or returned to their native countries.

Nevertheless, the number of immigrants compared to the small populations of Uruguay and slightly larger Buenos Aires was transformative for the language. Influence from Italian in River Plate Spanish is well documented and the theories for language contact in general and on intonation were briefly discussed. Urban populations in Uruguay were never far removed from

rural life due to the country's small population and geography. With Montevideo as the country's administrative center, all Uruguayans have been to the nation's capital, whereas not all residents of Montevideo venture into the interior departments frequently. As access to higher education in Montevideo became more accessible to students from the interior, Montevideo became a melting pot for young Uruguayans from across the country. Informants from the interior that have lived in Montevideo shared that they found greater anonymity in the large city where they could reinvent themselves, while others found themselves overwhelmed and eager to return to their department of origin. From this increased exposure to one another, the informants have formed linguistic impressions which suggest there are intonational differences between Montevideo and the interior departments. This dissertation takes as a sample the interior Department of Durazno, which, due to its location, has been less exposed to outside linguistic influences and makes for a rich point of comparison to the capital city of Montevideo.

Chapter 3: Literature Review on Intonation

3.1 Introduction

All language users are aware of and able to manipulate their pitch (i.e., the speed at which their vocal cords vibrate), duration, and intensity to alter the meaning they wish to convey. As children, if we wanted someone to give us a particular item in their possession, our parent/guardian would remind us to ask politely by prompting us with the familiar question, "What do you say?" with a specific tone, to which the child was trained to respond with "Please." Once the child was given the item, they would be prompted again with, "(Now) what do you say?". This second time, the child must respond with "Thank you." However, it was not just the words; it was how the child said them. They could have said "please" or "thank you" resentfully, boringly, smugly, excitedly, or kindly. Each of these can be easily distinguished by the accompanying parent/guardian. These different meanings are distinguished at the suprasegmental level through prosody (i.e., the patterns of stress and pitch in the voice when speaking), duration, and intensity (i.e., volume). If the adult deemed the speech act was performed inappropriately, disrespectfully, or ungratefully, they might give the child a disapproving look or instruct them to try again, not because the child is still figuring out how to use tone correctly, but to correct their behavior.

Pitch is used for linguistic purposes in all languages. Some languages, like Mandarin Chinese and Thai, use pitch to establish lexical contrasts. For example, in Mandarin Chinese, the syllable /ma/ pronounced with a high-level tone Mā means 'mother,' a rising tone Má means 'hemp,' a falling then rising tone Mǎ means 'horse,' and a falling tone Mà means 'to scold.' Languages that use pitch at the lexical level contrastively are called *tonal languages.* While speakers of non-tonal languages can manipulate pitch in this way, in non-tonal languages, this

change in pitch does not change the meaning of the word. Instead, pitch expresses pragmatic meaning, and different pitch contours specify different types of utterances. The use of pitch for pragmatic or discourse purposes is known as *intonation*. Therefore, languages that use pitch in this manner are referred to as *intonational languages* (e.g., English and Spanish). From here on out, this dissertation deals strictly with intonational languages.

Suprasegmental patterns are acquired as part of the speaker's first language (L1) and vary across languages and dialects. When discussing phonetic and phonological linguistic variation across dialects, however, most emphasis is placed on segmental sounds because these are more salient, more accessible, and more easily described and assessed. For example, in Uruguay, the graphemes 'y' and 'll' are pronounced either [ʃ], like the English 'sh' in 'ship,' or [ʒ], like the French' j' or the English 's' in the word 'measure,' in free distribution[20]. Duration, pitch, and intensity are measured in milliseconds (ms), hertz (Hz), and decibels (dB), respectively, and the human mind does not consciously think of these as discrete variables when speaking. In casual conversation, it would be unlikely to hear, "I would have been better understood if each syllable had been just 10ms longer, 50Hz lower, and 10dB higher." Instead, we mentally measure this in contrasts: ms = fast/slow or long/medium/short, Hz = high/middle/low, dB = loud/normal/quiet. Thus, a more plausible phrase to occur in casual conversation would instead be: "I would have been better understood if I had spoken a little slower (ms), in a lower tone (Hz), and a bit louder (dB)"; that is, through a suprasegmental description we can visualize. This added layer of information above and beyond words themselves is exemplified in novels as adverbial phrases such as, '"Go go go!" he whispered hurriedly'.

[20] These are two allophones that vary primarily based on age and secondarily by sex. It is more common for older adults to use the voiced [ʒ] allophone; among these older Uruguayans, it appears more often among men (Thun & Elizaincín, 2000).

The descriptive exactness required to compare prosodic features effectively is lost in the conversion from quantitative to qualitative features. Specific technology and transcription systems are required to maintain a degree of exactness in speech analysis. Key to this analysis is the ability to re-listen to and analyze the spoken word. The ability to record audio has existed for over one hundred years, and prior to modern computers and current speech analysis software, there were methods. However, these were less exact, and many linguistic judgments were done by ear. With the development of speech analysis software like Praat, initially released in 1991, this type of analysis became more accessible.

Within a speech signal, several frequencies can be tracked. Different frequencies have been found to correlate with specific aspects of articulation. We rely mainly on pitch to study Spanish intonation, with duration and intensity in key supporting roles. That said, looking down at a person's trachea and observing pitch directly through the vibration of their vocal cords is invasive and easier said than done. Therefore, we almost exclusively turn to speech analysis software and the acoustic correlate of pitch, *fundamental frequency* (F0), for intonational analysis. F0 is an energy band found in the speech signal that allows us to examine pitch indirectly. The software tracks this frequency in Hz and documents it as it rises and falls, detailing peaks and valleys throughout the utterance. Praat graphs F0 as a line or contour, thus visually representing pitch. Since the vocal cords only vibrate during voiced sounds, pitch is only observable during these segments. It is, therefore, common in intonation research to include or select utterances with increased numbers of voiced segments for a more complete contour mapping.

To facilitate understanding throughout this dissertation, Figure 3.1 introduces the reader to how Praat displays three key components (i.e., waveform, spectrogram, F0 contour). The

waveform, aided by the spectrogram, allows the researcher to examine and parse utterances into words, syllables, and sounds. The spectrogram is a field of energy bands within which vowel formants, intensity, and pitch are measured and graphed.

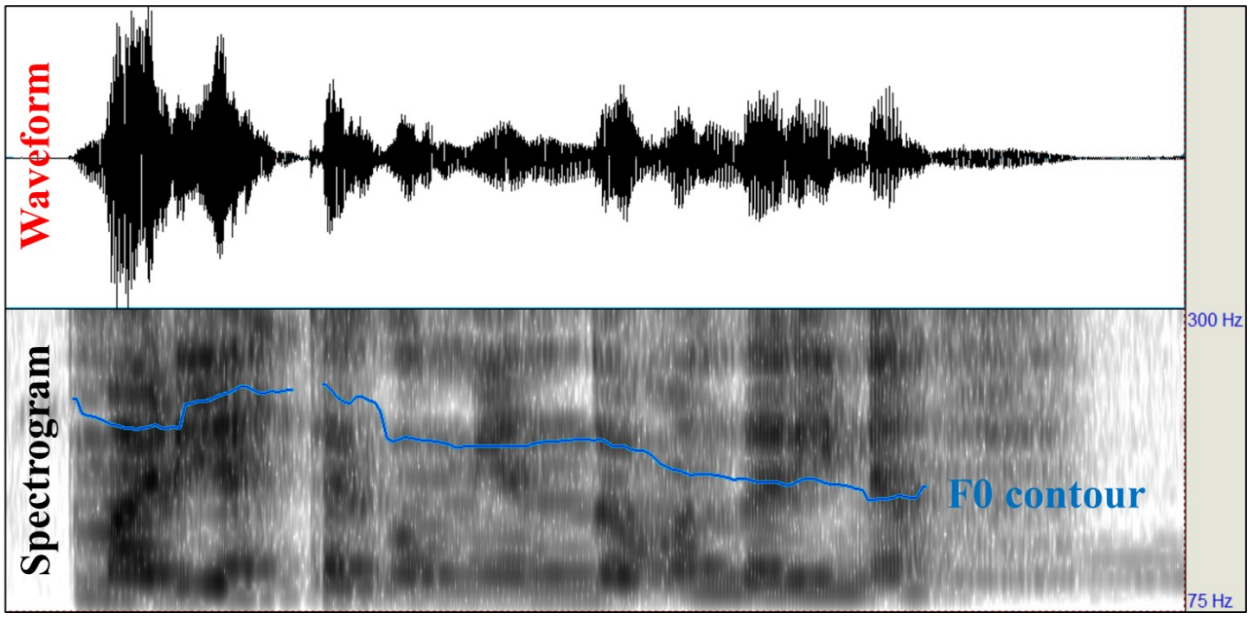


Figure 3.1: Example of Waveform, Spectrogram, and F0 Contour for statement: *María está comiendo mandarinas* 'Mary is eating mandarin oranges' produced by a 25-year-old Female from Montevideo, Uruguay (MVF25) in year 2022.

Using speech analysis software like Praat, linguists have been able to examine intonation patterns more accurately across languages and dialects. In Spanish, this has been a flourishing topic of study in the last few decades (Beckman et al., 2002; Face, 2001; Face & Prieto, 2007; Froemming & Rao, 2021; Hualde, 2003; Hualde & Prieto, 2015, among many others). Naturally, certain Spanish varieties have received greater attention than others during that time, and while Argentina has been studied more substantially, Uruguay is understudied. Uruguayan Spanish intonation has yet to be documented for all utterance types, as has been done for many other varieties. The only work to date revolves around Montevideo (Araujo, 2013; Correa & Rebollo

Couto, 2012; Machado & Escobar, 2023; Rebollo Couto et al., 2014) and Rivera[21] (Cunha et al., 2008). These studies do not cover Narrow-Focus Declaratives or other monolingual less urban departments.

This dissertation analyzes both Broad-Focus Declaratives (BFDs) (i.e., a regular, neutral statement) and Narrow-Focus Declaratives (NFDs) (i.e., a statement emphasizing a particular word). The intonation of these utterance types has been shown to vary from one dialect to the next, but this has not been adequately investigated in Uruguay. Additionally, this dissertation utilizes a larger sample size than most studies on intonation to more completely account for geographical and social variation. In the following section, I review the framework developed to comprehend and study intonation in a way that helps make it more accessible.

3.2 Phonology

3.2.1 The Autosegmental-Metrical Model

F0 or intonational contours detail a series of Highs (H) and Lows (L) that are key to discerning the meaning of the utterance and, therefore, contain significant and consistent patterns that are clearly linked to the words of the utterance. Building on previous proposals for intonation analysis, Pierrehumbert (1980) laid out a system and established rules for analyzing English intonation. Upon studying Japanese tonal accent patterns, Pierrehumbert and Beckman (1988) discovered that aspects of the system provided in Pierrehumbert (1980) needed to be reevaluated, leading them to first publish a reevaluation as Beckman and Pierrehumbert (1986) which allowed them to accommodate the linguistic structure of multiple languages. This system was denominated the Autosegmental-Metrical Model by Ladd (1996). It has also been referred to as AM Theory and AM Framework in the literature (henceforth, AM model). This model is

[21] Vanina Machado has defended her dissertation in Spring 2024 treating intonation in Rivera compared to Montevideo. Her work includes a sociolinguist analysis, but it is not yet available for review.

founded on two philosophies: 1) That tones of a language, High (H) or Low (L), occur on a separate plane, to a degree independent of other phonological traits such that they are auto-segments, associated with the segmental plane, or that of the text (Hualde, 2003). 2) It is metrical in that the association between the two planes is anchored to the metrically strong syllables (i.e., stressed syllables) (Face, 2011; Hualde, 2005). Put simply, the form of the F0 contour that occurs during each stressed syllable, as well as the final syllable of the utterance, affects the melody of the utterance and determines the utterance type (e.g., a statement or question). Also, these melodies can denote different linguistic varieties. The directional movement of F0 throughout the temporal confines of the stressed syllable, which often overflows into the posttonic syllable, is called a *pitch accent*. These can be monotonal (H*) or (L*), or bitonal, a combination of H and L joined with the + symbol (e.g., L+H* and H+L*). Lastly, the asterisk symbol *, called *star*, is placed after the tone associated with the stressed syllable (Hualde, 2003, p. 3). The star * in bitonal pitch accents is placed on the tone that defines the F0 movement during the majority of the stressed syllable. For example, L*+H, indicates that F0 remained low during the majority of the stressed syllable yet began to rise at the end, whereas L+H* indicates that while F0 started low it rose throughout the stressed syllable, reaching its peak within the stressed syllable, thus ending on a H*). More on pitch accents in Spanish and their meaning is presented in Section 3.2.3.

With pitch accents anchored to stressed syllables, we must establish which words are stressed and how stressed syllables are determined in Spanish. Words that contain stressed syllables include nouns, adjectives, stressed pronouns (e.g., subject pronouns and pronouns used with prepositions), cardinal[22] and ordinal numerals, verbs, adverbs, interrogative pronouns,

[22] In compound numerals (e.g., dos **mil** "two thousand"), the first number is unstressed, and the second is stressed.

indefinite articles, and demonstratives used as determiners. On the other hand, definite articles, prepositions, conjunctions, unstressed pronouns/clitics, possessive adjectives, and relative adverbs are only stressed if they are contrastively emphasized (Hualde, 2005; Quilis, 1975). Unlike English and other languages that can have multiple stresses in a word, Spanish words have traditionally been viewed as only having primary stress. The only exception to this rule is adverbs that contain the suffix *-mente*[23], where both the stem and the suffix *-mente* carry stress.

Having established which words carry stress, we must review how to identify the tonic or stressed syllable. In Spanish, the location of the stressed syllable falls on one of the final three syllables of the stressed word and is governed by the historical phonology of the word's final sound. However, these rules are more easily described through the orthographic system,[24] which has remained constant, at least in this aspect, across Spanish varieties. In contrast, the phonology has shifted in most Spanish dialects. To determine the stressed syllable, we focus on the final letter of the word, which, in turn, is linked to historical phonemes. Most Spanish words are *paroxytones*, which bear stress on the penultimate syllable. Paroxytone words end in vowels or the consonants 'n' or 's' (e.g., *olvi**da**do* 'forgotten'; ***co**men* 'they eat'; *co**me**mos* 'we eat') unless otherwise specified by an overruling written accent mark over the vowel of the stressed syllable

[23] Historically, the suffix - ***mente*** was a noun that meant and still means "mind"; as a noun, it had stress on the penultimate syllable. A phrase like '*devota mente'* meant "in a devout frame of mind." Eventually, the meaning of 'mind' was lost, and the *-mente* ending was used to form compound adverbs out of adjectives, such that *lenta mente* no longer meant "of slow mind" but rather "slowly". However, its historical stress remains (Penny, 2002, pp. 131–132).

[24] Spoken language precedes written language; therefore, this rule is bound to the phoneme, not the grapheme. It is explained via graphemes because Spanish phonological systems vary. In some Peninsular Spanish varieties where the phonological distinction between /θ/ and /s/ remains, it would work to say that word-final vowel phonemes and /n/ and /s/ produce paroxytones. However, in Latin America and some parts of Spain, /θ/ and /s/ fused together in favor of /s/, a phenomenon called *seseo*. Therefore, in Latin America, the grapheme 'z' is pronounced [s] rather than [θ]. However, if a word's final sound is written with 'z' despite sounding like an 's,' it does not cause the word to be paroxytone but rather oxytone because, historically, the phoneme was not /s/ but rather /θ/. Additional evidence that this is phonological is the word-final phoneme /s/ realized [h] or elided entirely still indicates a paroxytone word.

(e.g., *can**ción*** ‘song’). Most of the Spanish lexicon falls into this category since these endings are common across verbal paradigms and since ‘s’ marks plurality. Quilis (1975) calculated that 79.5% of stressed words are paroxytone. Suppose the word ends in a consonant other than ‘n’ or ‘s.’ In that case, the word is an *oxytone*, meaning a word having stress on the last syllable (e.g., *hospi**tal***), unless otherwise specified with an overruling written accent mark (e.g., ***tú**nel* ‘tunnel’). Quilis (1975) calculated that 17.68% of stressed words are oxytones[25]. For a word to be a *proparoxytone*, a word stressing the third to last syllable, an accent mark must be written, nullifying the natural orthographic/phonological rules detailed above (e.g., ***miér**coles* ‘Wednesday’). This category comprises only 2.76% of stressed words (Quilis, 1975). Due to the morphological rules governing the placement of enclitics, there are times that the stressed syllable can appear to fall on the fourth to last syllable. In Spanish, this only occurs when a series of enclitics appear at the end of a polysyllabic word like an affirmative command or gerund (***có**metelo* ‘eat it all up!’, *can**tán**dosela* ‘singing it to him/her’). In reality, these are paroxytone words with additional non-stress-bearing morphemes added to them. In these cases, the stress falls where it would have fallen naturally, on the penultimate syllable, if it had not been for the addition of the enclitics.

Having laid out the rules governing stress placement in Spanish words, we can examine the acoustic correlates present during that syllable. Across many languages, one or more of the following acoustic correlates are indicators of stress: F0 movement (Hz), duration (ms), and intensity (dB). The debate as to which of these is the leading indicator of stress in Spanish has been going on since at least the mid-20th Century (Bolinger & Hodapp, 1961; Kvavik & Olsen, 1974). Ultimately, each of the three correlates coexist and have a role to play in prominence.

[25] It would stand to reason that this percentage may increase in Uruguayan discourse due to the use of *voseo,* which marks stress on the final syllable of the verb (e.g., *can**tás*** “you sing”).

Hualde affirms that “stressed syllables receive greater prominence by means of pitch, duration, and intensity” (2005, p. 239). Unlike in English and Portuguese, in Spanish, unstressed vowels do not undergo reduction, so the vocalic quality difference between stressed versus unstressed vowels is very small (p. 241). While highest pitch and longest duration are not always associated with the stressed syllable, stressed syllables serve as anchoring points for F0, meaning “the stressed syllable is the crucial point of reference for the alignment of pitch events” (p. 243). In Castilian Spanish BFDs (i.e., regular, natural statements without emphasis or contrastive or corrective meaning), for stressed words in *nuclear position*, meaning the last stressed word of a phrase, F0 peaks tend to occur within the temporal confines of the stressed syllable (L+H*), whereas in *prenuclear position*, meaning any stressed word prior to the last, F0 often peaks in the posttonic syllable (L+<H*). Duration is likewise a correlate for stress, but this does not mean stressed syllables are always the longest, because duration has additional linguistic functions (Hualde, 2005, p. 244). Furthermore, Hualde (2005) notes that “intensity also plays some role in enhancing the prominence of the stressed syllables, although its role only becomes significant when combined with the other factors above” (p. 245). Supporting this idea of F0 as the constant indicator of stress, Llisterri et al. (2003), in their experimental perception study, found that F0, duration, and intensity in isolation are “not sufficient to perceive a clear change of the stress pattern” (p. 8). However, when F0 and either duration or intensity are combined, the stressed syllable is correctly identified. Removing F0 and only combining duration and intensity was not enough to correctly perceive the stressed syllable, thereby highlighting the crucial role of F0 in the detection of lexical stress. This present study focuses on the role of F0 being anchored to the stressed syllable for intonational analysis. The role of duration and intensity and their influence on stressed syllables and beyond is left for future research.

Before continuing we must discuss the prosodic hierarchy of an utterance (illustrated in Figure 3.2 below). The entire utterance is called the *intonational phrase* (IP), which is delimited by pauses at both ends. The tone located at each end[26] is called a *boundary tone*, signaled with the % symbol (e.g., L%, H%) (Beckman et al., 2002; Hualde, 2005; Rao, 2009). Within an IP, there may be an *intermediate phrase* (ip),[27] which refers to a smaller phrase within the larger utterance. There are specific phonetic cues that aid in identifying an ip boundary, such as: "F0 continuation rises ending in the final syllable of a word, longer duration of stressed syllables, large pitch range increases or decreases, and pauses" (Rao, 2009, p. 34). In the case of the existence of an ip, there is an *intermediate boundary tone*, expressed with the - symbol (e.g., H- or L-), to indicate high or low intermediate phrase boundaries. Within each ip or IP (if there is no intermediate phrase), there are Prosodic Words (PWs). PWs are the stressed words in the phrase. Unstressed words do not constitute their own but combine with the following stressed word and form a PW together. In Spanish, each PW will contain one stressed syllable for which a pitch accent is assigned based on the movement of F0 during that stressed syllable. The pitch accents that occur during these stressed syllables throughout the utterance provide the phonological representation of intonation.

[26] The initial boundary tone is less frequently marked and is not included in the figures presented in this dissertation.
[27] Previously called *Phonological Phrase* (PPH). Rao (2009) associates the two.

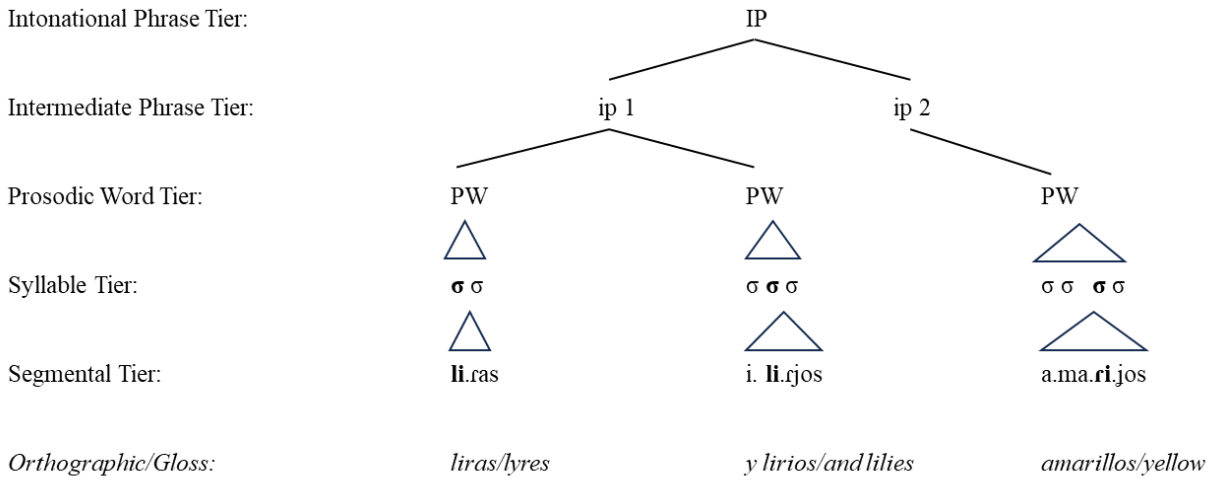


Figure 3.2: The Prosodic Hierarchy for an IP, Containing an ip. The bolded syllable symbols **'σ'** represent stressed syllables with which tones are associated. (Example adapted and modified from Nibert (1999; 2000).

By breaking the IP into two ips as presented in Figure 3.2, with ip2 containing the adjective *amarillos (yellow)*, *yellow* modifies both nouns, *lyres* and *lilies*. Without auditory clues (e.g., a pause or high ip boundary tone) that signal ip2, it would be ambiguous if both were yellow or only the lilies. Thus, the addition of an ip allows for greater nuance. Had ip1 only contained *liras* and ip2 *y lirios amarillos,* the only possible interpretation would be that the *lirios* alone were yellow.

3.2.2 Spanish Tones and Break Indices (Sp_ToBI) Labeling System

Tones and Break Indices (ToBI) is a prosodic transcription system initially developed for English by a diverse group of speech scientists and engineers to teach transcribers, thereby achieving high inter-transcriber agreement and reliability (Pitrelli et al., 1994). The ToBI labeling system consists of 4-5 parallel tiers, listed here[28] in order from top to bottom[29].

1) The Orthographic Tier includes the recorded sentences in plain text.

[28] Taken from the Sp_ToBI Training materials found at http://prosodia.upf.edu/sp_tobi/en/labeling_system/description.html)
[29] While this is the order of the tiers established by Sp_ToBI, in practice, order often varies.

2) The Phonetic Transcription Tier includes the IPA transcription of the utterance.

3) The Break Index (BI) Tier includes five break options BI 0-BI 4.

BI 0 marks cohesion between orthographic words. Orthographic words separated by BI 0 constitute a prosodic word that may bear only one pitch accent.

BI 1 marks boundaries between prosodic words. Items separated by BI 1 should carry at most one pitch accent each.

BI 2 marks either a perceived disjuncture with no intonation effect or an apparent intonational boundary but with no slowing or other break cues.

BI 3 marks the boundaries of ips (intermediate phrases).

BI 4 marks the boundaries of IPs (Intonational Phrases).

4) The Tone Tier includes the pitch accents associated with each stressed syllable and the IP and ip boundary tones. ToBI frameworks also house the accepted tones for the language.

5) The Miscellaneous Tier: is, in essence, a comment tier for optional markings.

ToBI applied to Spanish, henceforth Sp_ToBI, is visualized in Figure 3.3. In this example, the Miscellaneous Tier is left empty.

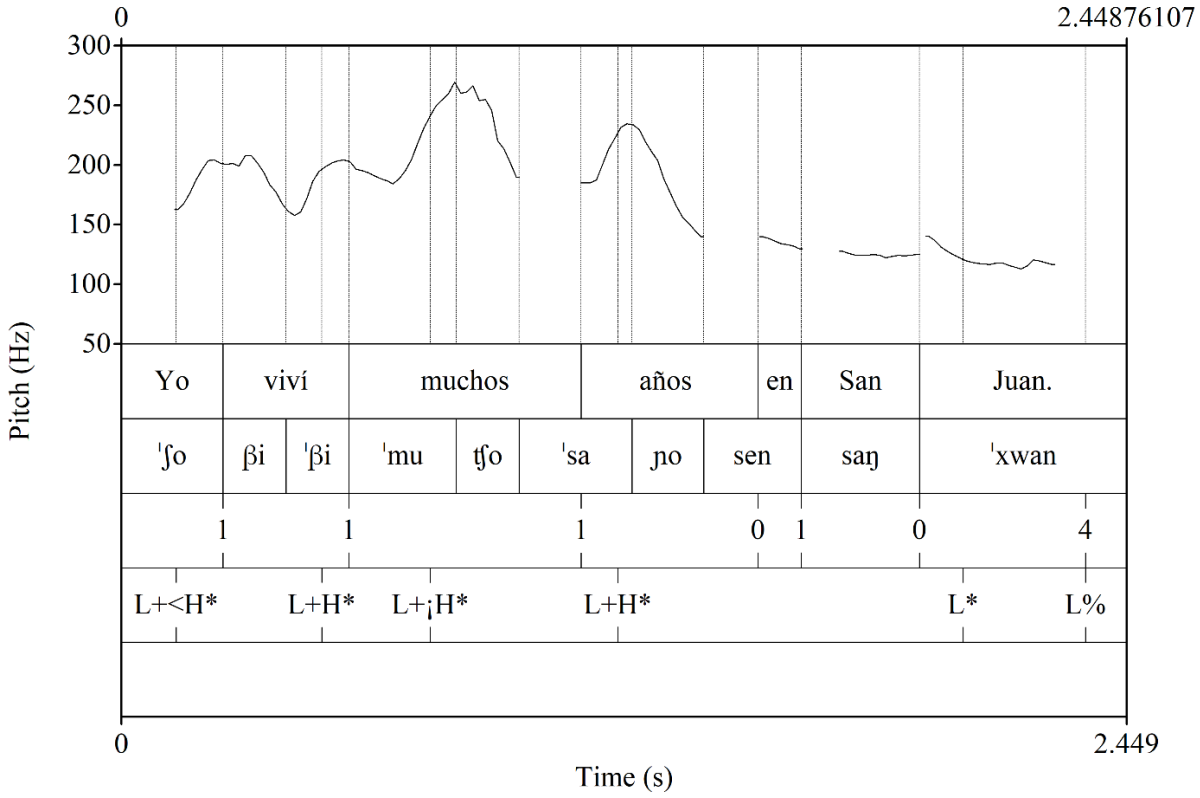


Figure 3.3: Broad-Focus Declarative Utterance Demonstrating the Use of Sp_ToBI (MVF77-2) *Yo viví muchos años en San Juan* 'I lived many years in San Juan.'

Due to the inherent prosodic differences between and among languages, the number of accepted pitch accents and boundary tones varies (McGory & Díaz-Campos, 2002). To accommodate these differences while aiming for a uniform prosodic transcription system, ToBI was adapted to different languages (e.g., Spanish ToBI, Catalan ToBI, Greek ToBI, etc.). This adaptability allows specific languages to create a consensus around the use of additional pitch accents to meet their needs. The 'Spanish' Tones and Break Indices (Sp_ToBI) started with Beckman et al. (2002) and has been revised and added to by Hualde (2003), Face and Prieto (2007), Estebas and Prieto (2008), the volume edited by Prieto and Roseano (2010) and Hualde and Prieto (2015). Rather than detail every change to Sp_ToBI from Beckman et al. (2002) until the present day, I refer the reader to the above publications for a detailed summary of the evolution of the framework. Before detailing the intonation patterns of the geographical variety

examined in this dissertation and how its nuances affect Sp_ToBI, we review the most current version of Sp_ToBI found in Hualde and Prieto (2015).

3.2.3 The Sp_ToBI Pitch Accent and Boundary Tone Labels

Each intonational language develops its own notation system. These language-specific inventories of pitch accents and boundary tones are accompanied by schematic representations (a picture). The notation may be the same as in other languages; however, their meaning can vary slightly (Hualde & Prieto, 2016). Schematic representations are pictured below as follows: monotonal pitch accents in Figure 3.4, bitonal pitch accents in Figure 3.5, IP boundary tones in Figure 3.6, and ip boundary tones in Figure 3.7. Each schematic representation represents a prosodic word within which we see vertical columns with dark lines delineating syllabic boundaries. For pitch accents, the column with the darkest shading represents the stressed or tonic syllable. Therefore, the white column to the left is the pretonic syllable(s), and to the right is the posttonic syllable. The dark line traversing the columns represents the F0 contour.

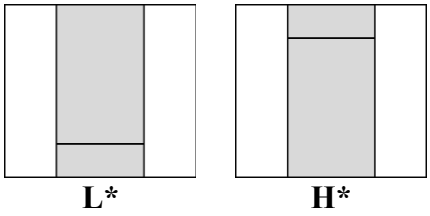


Figure 3.4: Schematic Representations of Monotonal Pitch Accents adapted from (Aguilar et al., 2009) via http://prosodia.upf.edu/sp_tobi)

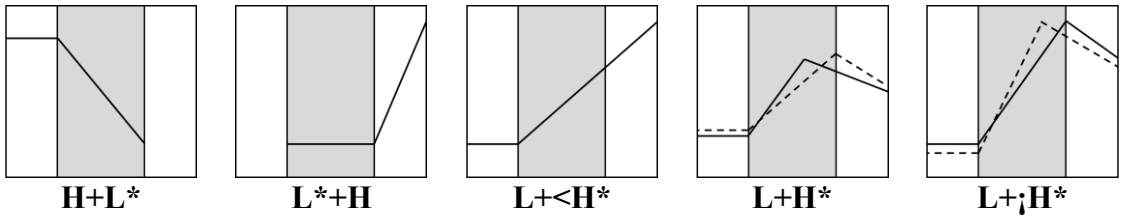


Figure 3.5: Schematic Representations of Bitonal Pitch Accents adapted from (Aguilar et al., 2009) via http://prosodia.upf.edu/sp_tobi), modified by (Hualde & Prieto, 2015) with dashed lines added to illustrate more than one possible alignment.

There is only one difference in pitch accents between Aguilar et al. (2009) and Hualde and Prieto (2015), which is the flipping of the > symbol to <. This change is included in the schematic representation above.

L+>H* → **L+<H***

This change to the pitch accent label, referring to the same F0 movement, was made to align itself better with the labeling systems in other languages, thus maximizing inter-language comparability. Therefore, the label L+<H* will be used in this dissertation to further those efforts.

While not a new pitch accent, on the contrary, it formed part of the system originally proposed by Beckman et al. (2002), the pitch accent L+¡H* contains a unique symbol ¡, which indicates an *upstep* (i.e., a peak higher than the previous peak). Since Spanish is a *downstepping* language (i.e., peak height falls from left to right), a break from this trend is contrastive and is thus included in the labeling system. The difference between L+H* and L+¡H* is peak height relative to the previous peak, with both indicating that F0 rises and peaks within the stressed syllable. This upstepped symbol is not restricted to L+¡H*; it can be added to any pitch accent that peaks above the previous one. Downstepping is revisited in Section 3.2.5.1.

For IP boundary tones, the light gray column represents the remaining syllables after the final stressed syllable prior to an IP boundary. Likewise, the dark line traversing the columns represents F0 movement.

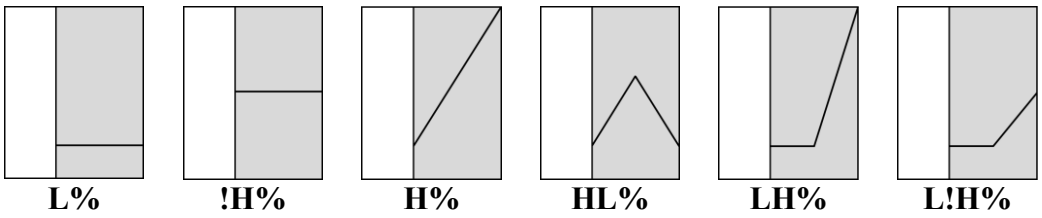


Figure 3.6: Schematic Representations of IP Boundary Tones adapted from (Aguilar et al., 2009), modified in accordance with (Hualde & Prieto, 2015)

Compared to Aguilar et al. (2009), Hualde and Prieto (2015) utilize a slightly different set of IP boundary tones. The following changes were made to increase comparability with other Romance languages.

M% → **!H%**

Hualde and Prieto (2015) exclude mid boundary tones (M%) from the inventory. !H% is the more universal label of a downstepped H boundary tone.

LM% → **L!H%**

This swap of M for !H also applies to LM%, which changes to L!H% (Hualde & Prieto, 2015, p. 362).

HH% → **H%**

Hualde and Prieto (2015) do not include boundary tone HH% in their revised inventory, despite its previous use in Estebas-Vilaplana and Prieto (2010). Instead, Hualde and Prieto (2015) treat it as H%. Since HH% referred to an upstepped high boundary tone, other authors who see the need to retain it do so as ¡H%. With this dissertation treating declaratives, high IP boundaries are not expected. However, for the sake of completeness of the Sp_ToBI system, in this dissertation a single H is enough to label an H boundary tone, being higher than the downstepped !H%.

LHL% → **excluded**

Lastly, Hualde and Prieto (2015) exclude the complex LHL% boundary tone, which was not attested in their data. This dissertation employs these updated labels and will propose additional labels in Chapter 5, as warranted by the present data.

Regarding ip boundary tones, Hualde and Prieto (2015) drastically reduce the inventory presented in Aguilar et al. (2009). Replacing the M- with !H- was expected, given the reasoning for the same replacement for IPs, but the exclusion of HH-, HL-, LH-, and LHL- is not

addressed[30]. This dissertation employs the reduced number of ip boundary tones proposed by Hualde and Prieto (2015). If the following ip boundary tones prove insufficient for the current data set, this will be addressed in Chapter 5.

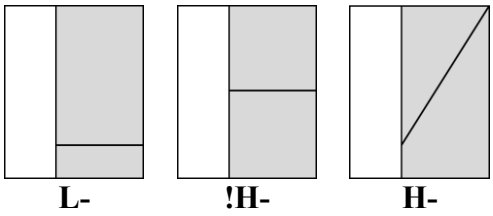


Figure 3.7: Schematic Representations of ip Boundary Tones (Aguilar et al., 2009) modified in accordance with (Hualde & Prieto, 2015)

Aguilar et al. (2009) include schematic representations for *nuclear configurations* (i.e., the combination of each potential nuclear pitch accent and boundary tone, displayed as a single schematic representation), which detail all F0 movement during the final PW, which is why these only contain the IP boundary tone symbol %. Details for each and accompanying audio samples are available online at http://prosodia.upf.edu/sp_tobi. They are excluded here because this dissertation is limited to declaratives, and many nuclear configurations will not apply. The combinations attested in the present data are included in Chapter 4. Table 3.1 below provides examples of how pitch accents and boundary tones function in Peninsular Spanish and how they can vary based on utterance type and pragmatic meaning.

[30] Surely, had the authors seen evidence of the excluded intermediate boundary tones, they would have included them. Therefore, their exclusion indicates that they did not find such notation useful or necessary to differentiate between the more limited role that intermediate boundaries play in interpreting utterances.

bebe	*La limonada*	Function
L+<H*	L+H* L%	Statement or command
L+<H*	L* L%	Statement or command
L+H* L-	L* L%	Statement or command with emphasis on the first word
L+<H* H-	L+H* L%	Statement or command with emphasis on the second word. First word is topic
L+<H*	L+H* L!H%	Statement of the obvious (se also echo-question expressing surprise)
L*+H	L* H%	Information-seeking question
L+<H*	L+H* HL%	Confirmation question
L+<H*	L+¡H* L%	Echo question (surprise etc.)
L+H*	H* H%	Quiz question
L+<H*	H+L* L%	Insistent explanation and Insistent request

Our intonation analysis of Spanish has included the following inventory:

Pitch accents: H*, L*, H+L*, L+H*, L+<H*, L+¡H*, L*+H;
Intermediate-phrase boundary tones: L-, H-, and !H-;
Intonational-phrase boundary tones: H%, L%, !H%, LH%, L!H%, and HL%

Table 3.1: Phonological Inventory for Peninsular Spanish Intonation. Some possible intonation contours for *Bebe la limonada* "S/he is drinking the lemonade' in (adapted from Hualde and Prieto (2015 p. 389)

As has become apparent from the presentation of pitch accents and boundary tones above, this dissertation uses the Sp_ToBI framework and the pitch accent and boundary tone inventories found in Hualde and Prieto (2015). Sp_ToBI continues to evolve to achieve its objective of standardizing the prosodic transcription labeling system for both dialectal and cross-linguistic comparability. While this inventory and set of transcriptions in Table 3.1 represent the intonation of Peninsular Spanish, these same labels apply to other dialects and languages, though their use and frequency may pattern differently.

3.2.4 The Tritonal Pitch Accent

Recall from the previous sections the existence of both monotonal and bitonal pitch accents. Noticeably absent from the Sp_ToBI inventory from Beckman (2002) through Hualde and Prieto (2015) are *tritonal pitch accents,* referring to the three-part pitch accent L+H*+L that

depicts both a rise and a fall within the time constraints of the accented syllable; demonstrated in Figure 3.8.

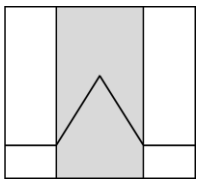


Figure 3.8: Schematization of the Tritonal, L+H*+L.

At the foundation of the AM model, Pierrehumbert (1980) stated that "since our system has no tritonal accents, we would claim that a pitch accent cannot constrain the F0 both to the right and to the left of the accented syllable" (p. 31). However, as outlined previously, F0 is associated with and anchored to stressed syllables (Hualde, 2005), and F0 has been shown to peak in different locations both within and outside the confines of the stressed syllable. If F0 rises and peaks towards the right edge of the stressed syllable, we label that L+H*; if F0 falls during the stressed syllable, we label that H+L*. Therefore, what is occurring in what is being called a *tritonal pitch accent* is a combination of both L+H* and H+L*; hence the H's combine, creating the L+H*+L sequence. These tritonals have been found in different Spanish dialects in specific environments (Colantoni, 2011; Colantoni & Gurlekian, 2004; Froemming, 2020; Gabriel et al., 2010; Labastía, 2006, 2011). Evidence for tritonal pitch accents in Buenos Aires Spanish (Colantoni, 2011; Colantoni & Gurlekian, 2004; Gabriel et al., 2010; Labastía, 2006, 2011) has been attributed to the influence of massive Italian immigration that began in the late 19th century. Goebel (2010) demonstrates that this massive wave of Italian immigrants occurred in Argentina and Uruguay, which I addressed in Chapter 2. Additionally, Uruguay and Argentina have a close ongoing historical, cultural, and linguistic relationship, such that the presence or absence of a tritonal pitch accent in Uruguayan Spanish will demonstrate notable linguistic

(dis)similarity between the two countries. The uses and justification for adding the tritonal pitch accent to the inventory will be discussed further in later sections and chapters.

3.2.5. Utterance Types: Broad-Focus Declaratives (BDFs) vs. Narrow-Focus Declaratives (NFDs)

To effectively discuss the phonetic and phonological representations of intonation patterns, we must first establish the role F0 plays in meaning creation. As Hualde and Prieto (2015) outlined for Peninsular Spanish (seen in Table 3.1 above), distinct F0 contours imposed on a single sentence generate a variety of utterance types (e.g., declarative, interrogative, exclamative). Within these categories, multiple pragmatic meanings can be conveyed by manipulating F0. The following section focuses on the declarative utterance type being examined in this dissertation.

As already noted, this dissertation investigates declarative utterances, divided into *Broad-Focus Declaratives* (BFDs) and *Narrow-Focus Declaratives* (NFDs). While the Voces de Uruguay Linguistic Corpus (Goodale, 2022) used for this dissertation contains samples of all utterance types, only the BFDs and NFDs are examined, leaving the remaining utterance types for future research.

Declaratives, simply put, are statements. The term *focus* refers to the emphasis given to the different elements of the statement. If the focus is *broad*, there is no particular emphasis on any specific element of the statement, described as a regular or neutral statement. For example, if a speaker were casually asked the question "*¿Qué come María?",* 'What is Mary eating?' and responded equally calmly with "*María está comiendo mandarinas."* 'Mary is eating mandarin oranges,' each of these words would be spoken with equal importance, not emphasizing any one word over another. The focus is so broad that all elements are treated equally. However, if the

focus is *narrow*, emphasis is placed on a specific element of the statement, causing it to be highlighted differently from the other elements. There are three types of narrow focus: 1) *non-contrastive/new information focus*, 2) *contrastive/corrective focus*, and 3) *emphatic focus* or *emphasis*.

An example of non-contrastive/new information narrow focus is typical of a response to a question. Therefore, it is possible for the BFD example mentioned above, *María está comiendo mandarinas.* 'Mary is eating mandarin oranges' to also be interpreted using narrow focus because it is a response to the question "*¿Qué come María?",* 'What is Mary eating?'. The missing information provided in the response is '*mandarinas*' and could therefore be interpreted as new information. This effect was mitigated by providing the informant with a picture of Mary eating mandarin oranges, making this information no longer new. However, some informants interpreted it narrowly as will be discussed in later chapters. This dissertation, however, studies contrastive/corrective narrow focus and emphatic focus or emphasis. Corrective narrow focus is visible in the following example: "*Señora, ¡no quiero limones, ¡quiero NARANJAS!"* 'Ma'am' I don't want lemons, I want ORANGES!'.

Narrow focus can be placed on any number of elements altering the pragmatic meaning of the statement. Let's take a look at a longer phrase with more elements that can be focalized. For example, the following sentence is said correcting a misinformed friend. "*¡No, se van a vivir a San Juan!* 'No, they are going to live in San Juan!' Depending on which information the friend had incorrect, a number of words could receive corrective focus. "*¡No, se van a vivir a SAN JUAN!"* 'No, they are going to live in SAN JUAN!' indicating that the friend thought they were

going to live somewhere else or *"¡No, se van a VIVIR a San Juan!"* 'No, they are going TO LIVE in San Juan!.' indicating that the friend thought they would only go to visit, not live[31].

To start, the descriptions provided to describe BFDs are based on Castilian Spanish, which has been extensively investigated (Face, 2001, 2002, 2010, 2011; Face & Prieto, 2007 among others) and which commonly serves as a point of comparison for other linguistic varieties[32] due to the frequency with which these patterns occur in other Spanish varieties, outside of language contact environments. Spanish BFDs are characterized by an F0 rise associated with every stressed syllable with each subsequent peak being lower than the previous one, this is known as *downstepping.* An additional characteristic of Spanish declaratives is *final lowering*, a tendency to have a much lower rise or no measurable rise in nuclear position, pictured in Figure 3.9. This tendency is even more pronounced in lab speech when compared to spontaneous speech (Face, 2003, p. 125).

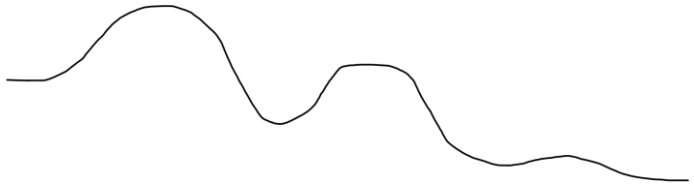


Figure 3.9: Schematization of Downstepping with Final Lowering.

Having established that F0 movement is associated with the stressed syllable, Castilian Spanish shows for BFDs, that in prenuclear position, F0 rises during the stressed syllable and peaks in the posttonic syllable L+<H* (Estebas Vilaplana & Prieto, 2010; Face, 2011), a trend

[31] This phrase is a categorical declarative, and the primary corrective focus is marked on "No", leaving the second element with what I call *secondary focus*. While *San Juan* or *a vivir* are corrections, they are not marked with corrective/contrastive focus because of the primary focus. In most cases secondary focus is not focalized as much if at all (see Chapter 5). If the correction were issued without the categorical correction (i.e., "No), then what was secondary would become primary and be marked with corrective focus (e.g., se van a vivir a SAN JUAN).

[32] As addressed in Chapter 2, the main Spanish immigrants were not from Castile but rather Galicia, Basque Country and Catalonia. Their intonation patterns will also be accounted for later on.

that was first noted by Navarro Tomás (1944). This F0 contour is demonstrated in Figure 3.10. Also notice in nuclear position that F0 peaks within the confines of the tonic syllable in *limonada*[33].

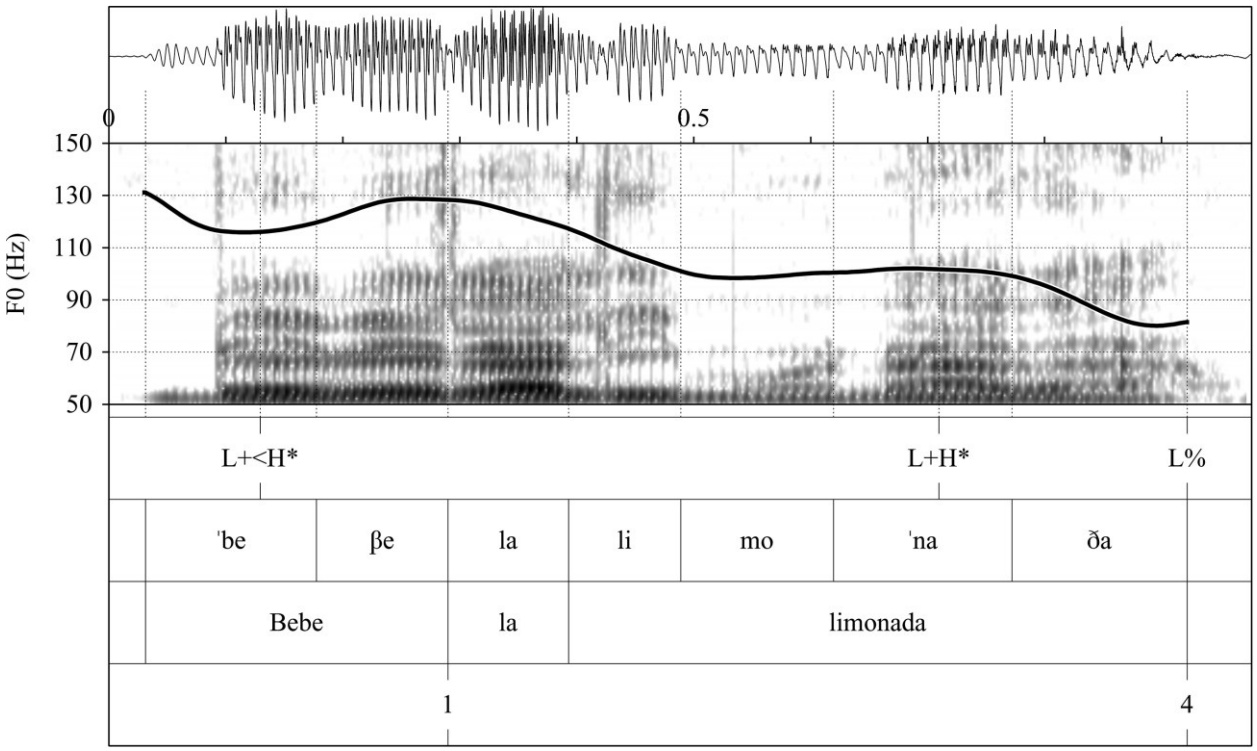


Figure 3.10: Broad-Focus Declarative from Castilian Spanish (Hualde & Prieto, 2015, p. 365) *Bebe la limonada* 'S/he drinks the lemonade.

However, this pattern only holds in some Spanish varieties. BFDs in Puerto Rico, for example, are characterized by L*+H in prenuclear position, meaning a low F0 during the stressed syllable that begins to rise in the posttonic (Armstrong, 2010). Likewise, the same pattern is found in the Dominican Republic (Willis, 2003). In fact, in this variety, L+<H* indicates narrow focus, which, while certainly not the norm, is expected in the variety, as we will see when discussing NFDs.

[33] The nuclear pitch accent is very low due to final lowering but a clear drop in F0 begins after the stressed syllable indicating that F0 fought not to fall until the stressed syllable concluded, and its peak is higher than the preceding valley.

Pitch accents in nuclear position have been shown to behave differently than prenuclear pitch accents. In prenuclear position, in most varieties, late peaking, be it L+<H* or L*+H, is common, whereas in nuclear position F0 rises substantially less due to final lowering but also peaks within the confines of the stressed syllable as seen in Figure 3.10 above. It also peaks within the stressed syllable because the phrase is ending and there is no room to peak in the posttonic syllable, if there is one at all. The nuclear stressed syllable has also been shown to have a longer duration, known as *final lengthening,* which helps it appear stronger even as F0 falls (Rao, 2009).

Narrow-focus declaratives, on the other hand, vary in that the focus can be located on words in either prenuclear or nuclear positions. Nevertheless, beginning first with narrow-focus in prenuclear position, in Castilian Spanish, F0 peaks earlier than in BFDs, employing L+H* for narrow focus versus L+<H* for broad focus (Face, 2001, 2002; Face & Prieto, 2007). This shift in peak alignment, called *early peaking*, holds for other Spanish varieties in prenuclear position. As briefly mentioned earlier, in Dominican (Willis, 2003) and Puerto Rican Spanish (Armstrong, 2010), late rise L*+H in BFDs becomes L+<H* in NFDs. This tendency for early peaking is not the only indication of narrow focus in prenuclear position. Face and Prieto (2007) note that for Castilian Spanish, after the focalized element of the utterance, subsequent F0 peaks associated with the remaining PWs are reduced and sometimes not visible on the pitch track (p. 129). The same description is given by O'Rourke (2012, p. 509) for Peruvian Spanish a phenomenon O'Rourke calls *deaccenting*. Additionally, the F0 peak height of the focalized element is sometimes higher or upstepped, a pattern not characteristic of BFDs. In this dissertation there is only one NFD sentence in which the focalized element is not the final word of the utterance, but rather the penultimate, but since nuclear pitch accents in declaratives are usually low, this post-

focal L* nuclear pitch accent cannot be only attributed to the earlier focalized element. To determine how Uruguayan Spanish treats PWs in the post-focal environment additional research is required.

Similar cues could be expected for narrow focus occurring in nuclear position; that is, increased peak height, possible F0 reduction in non-focalized prenuclear position, and possibly earlier peaking, though nuclear peaking has already been shown to be earlier in BFDs. However, in Puerto Rican Spanish, Armstrong (2010) finds a high plateau (H*) throughout the stressed syllable, followed by a low boundary tone L%. In Buenos Aires Spanish, early peaking is observed and documented as the tritonal pitch accent L+H*+L, while pre-focal syllables not under focus are not reduced but rather continue to peak as they would in prenuclear position in BFDs. For BAS L+H*, especially for males is the common non-focalized prenuclear pitch accent (Enbe & Tobin, 2007, 2008; Gabriel et al., 2010).

In short, BFDs and NFDs have different F0 contours, as will continue to be highlighted in this dissertation, which is how the speaker encodes their intended meaning above and beyond the words used. The hearer then perceives a pattern that differs from the BFD F0 pattern and knows where the narrow focus is being added. However, not all Spanish varieties vary F0 the same way to mark this contrast (Armstrong, 2010; Colantoni, 2011; Face, 2003; Gabriel et al., 2010; Willis, 2003), which helps listeners to differentiate between speakers of different varieties.

3.2.6 Intonation in Buenos Aires, Argentina, and Uruguay

Hualde and Prieto (2015) note that "[t]he difference among the educated varieties of, say, Mexico City, Caracas, Madrid, and Buenos Aires is roughly comparable to that existing between London and Chicago English in speakers of the same educational level" (p. 353).

Recall that Chapter 2 explained that Uruguay pertains to the River Plate dialect zone, as does Argentina, and that variation present across the zone is of particular interest to this dissertation. Therefore, the emphasis moving forward is on intonation studies conducted in the region and these are compared to other varieties as warranted. Before continuing the discussion on Buenos Aires Spanish (BAS) intonation, an item of politics and geography requires clarification. Argentina is made up of 23 provinces and 1 Autonomous City. Within the Province of Buenos Aires, along the coast, is the Greater Buenos Aires, which surrounds the Autonomous City of Buenos Aires, as pictured in Figure 3.11 below. Studies conducted on Buenos Aires Spanish state that their informants are from "Buenos Aires" (Colantoni, 2011; Colantoni & Gurlekian, 2004; Feldhausen et al., 2010; Pešková et al., 2011, 2012) without further detail. It is to be assumed that this refers to speakers living in either the Greater Buenos Aires area or the Autonomous City of Buenos Aires, not the province as a whole. The term *porteño* refers to Buenos Aires residents; those born in the City of Buenos Aires consistently consider themselves *porteños*. However, some, not all, natives of Greater Buenos Aires consider themselves *porteños*, whereas speakers from other provinces would likely consider anyone from the Greater Buenos Aires area to be *porteño*.

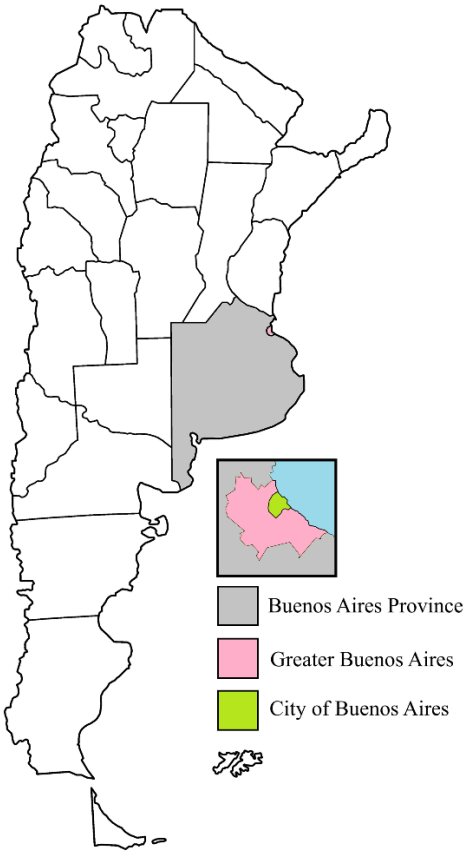


Figure 3.11: Map of Buenos Aires, Argentina

BAS intonation has been more extensively studied, and seeing as Buenos Aires speech has been shown to be segmentally quite homogenous with, at least, Montevideo speech (Fernández Trinidad, 2010), BAS intonation is of comparative interest. Studies of BAS intonation demonstrate a preference for prenuclear L+H* and nuclear H+L* in BFDs (Colantoni & Gurlekian, 2004; Gabriel et al., 2010; Kaisse, 2001; Pešková et al., 2012), and a preference for tritonal L+H*+L to mark narrow focus (Gabriel et al., 2010). Recall from Chapter 2 that immigrants to both Buenos Aires and Uruguay were mainly Spanish and Italian, with most of the Spanish immigrants being *gallegos* (Galicians) and most of the Italians coming first from northern Italy and then in higher numbers from southern Italy. As mentioned previously, one of the prevailing theories about BAS intonation is the influence of the arrival of Italian immigrants

in the mid to late 19th and early 20th centuries. Colantoni (2011), Colantoni and Gurlekian (2004), and Pešková et al. (2012) argue that the present intonation patterns in BAS emerged at the turn of the 20th century and coincided with the peak of Italian immigration to Buenos Aires, Argentina, and that prior to this, BAS intonation was similar to that of Peninsular Spanish. The influence from Galician or Galician Spanish is not mentioned in these analyses of BAS intonation. Nevertheless, Galician intonation employs prenuclear L+H* and nuclear H+L* in BFDs (Fernández Rei, 2007) the same description given for BAS intonation. Subsequent work on yes/no question intonation finds that Galician intonation is transferred to Galician Spanish, thereby demonstrating that the same intonation is used in both languages emanating from that region of Spain (Fernández Rei, 2016).

Regarding the influence of Italian, Colantoni (2011) outlines the numerous observations made by linguists and non-linguists, locals and foreigners, of the resemblance of BAS intonation and Italian intonation. While intonation patterns vary significantly across the Italian landscape, declarative intonation, especially BFDs, is extremely stable across varieties and is characterized by a falling nuclear pitch accent H+L* (Gili Fivela et al., 2015; Grice et al., 2005; Orrico et al., 2020). This nuclear pitch accent is phonetically realized as an F0 fall from a high pretonic syllable to a low tone. “The height of the pretonic syllable is variable: it may be a clearly high target, the end of a plateau, and sometimes a high target can be even hard to detect, being included within a quite gradual fall” (Gili Fivela et al., 2015, p. 147), pictured Figure 3.12.

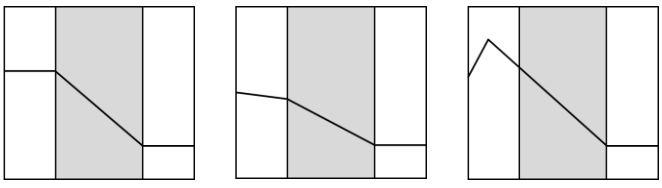


Figure 3.12: Schematic Representation of Bitonal Nuclear Pitch Accent H+L* in Broad-Focus Declaratives in Italian (Gili Fivela et al., 2015)

The latter case is visible in Gili Fivela et al. (2015, p. 158) as falling from a prenuclear pitch accent, consistently labeled L+H*, as shown in Figure 3.13. However, in Italian intonation, less attention is paid to prenuclear pitch accents, often labeled H* in earlier publications (Grice et al., 2005, p. 363).

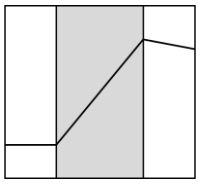


Figure 3.13: Schematic Representation of Bitonal Prenuclear Pitch Accent L+H* in both Broad and Narrow Focus Declaratives in Italian (Gili Fivela et al., 2015)

However, Italian NFDs are less stable across varieties. Gili Fivela et al. (2015) demonstrate that, for contrastive/corrective focus occurring in nuclear position, L+H* L%, pictured in Figure 3.14, is common in Northern Italian (e.g., in Milan and Turin), Tuscan (e.g., in Florence, Siena, and Lucca), Southern Italian (e.g., to the west in Naples and Salerno), whereas H*+L L%, pictured in Figure 3.15, forms the nuclear pattern in Central Italian (e.g., in Pisa and Rome), Southern Italian (e.g., to the east in Pescara and Bari), as well as in Extreme Southern Italian (e.g., in Cosenza and Lecce) (p. 160). Despite this diatopic variation in narrow-focus intonation patterns, both L+H* and H*+L differ from the stable broad-focus pattern of H+L*. In Italian, the BFD nuclear pitch accent H+L* is characterized by a long fall throughout the stressed syllable, often with no salient peak. Therefore, by either creating this peak in the pretonic syllable H*+L or within the stressed syllable L+H*, Italian marks contrast by what can be considered (early) peaking. Therefore, Italian, like Spanish, marks narrow focus with earlier F0 peaks.

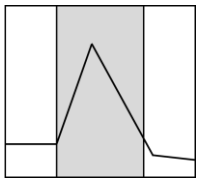


Figure 3.14: Schematic Representation of Bitonal Nuclear Pitch Accent L+H* in NFDs in Italian (in Milan, Turin, Florence, Siena, Lucca, Naples, and Salerno) (Gili Fivela et al., 2015)

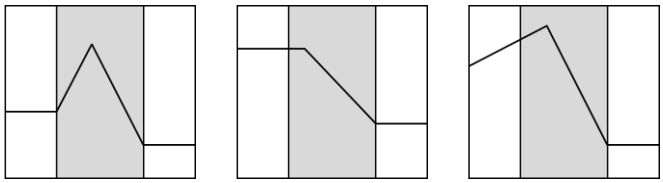


Figure 3.15: Schematic Representation of Bitonal Nuclear Pitch Accent H*+L in NFDs in Italian (in Pisa, Cosenza, Bari, Lecce, and Pescara) (Gili Fivela et al., 2015)

In support of the theory of Italian→Spanish transfer[34] (Colantoni, 2011; Colantoni & Gurlekian, 2004), BAS and Italian share the stable BFD nuclear pitch accent H+L* (Gabriel et al., 2010), as represented in Figure 3.16, also attested in Galician and Galician Spanish (Fernández Rei, 2016), whereas Basque prefers H*+L (Elordieta, 2003).

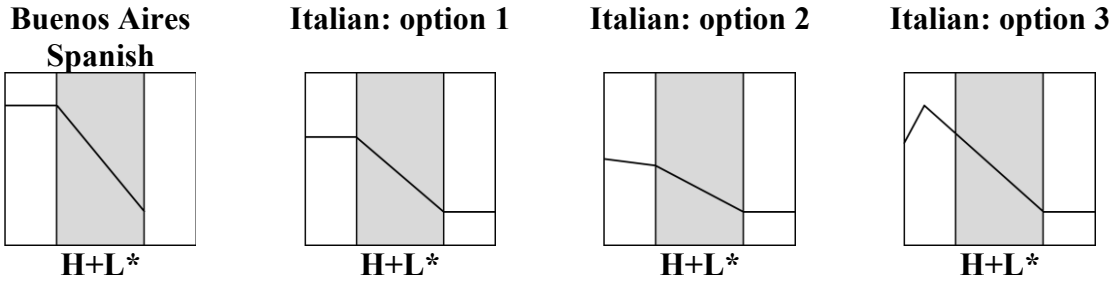


Figure 3.16: Schematic Representation of Nuclear Pitch Accents in Broad-Focus Declaratives in Spanish and Italian (Gabriel et al., 2010; Gili Fivela et al., 2015)

However, a comparison shows that BAS presents a more salient peak before falling than Italian. Kaisse (2001), describing BAS BFD intonation, uses the nuclear pitch accent H*+L for the long fall contour. Italian uses this pitch accent notation for narrow focus. While not

[34] The notion of linguistic transfer and its effect on intonation is not limited to these studies on Spanish and Italian, see Elordieta and Romera (2021) for an expansive list of publication on the topic.

addressed, it appears that, with the evolution of Sp_ToBI, H+L* came to be used for what Kaisse (2001)[35] described. The pitch accent H*+L is not included in the Sp_ToBI inventory presented by Gabriel et al. (2010). Again, in support of the theory of Italian→Spanish transfer in NFDs, both BAS and Northern and Southern Italian peak early. However, how they peak differs. A comparison of the F0 contours provided for NFDs in Italian by Gili Fivela et al. (2015, pp. 161–163) and those for BAS by Gabriel et al. (2010, pp. 290–293) again highlight that BAS prefers more salient peaks.

For narrow focus, BAS employs a tritonal nuclear pitch accent L+H*+L; see Figure 3.8 above. This tritonal pattern, described as such, is not attested in Italian. However, in Italian, L+H* and H*+L are attested, both of which appear to rise and fall within the confines of the stressed syllable, (i.e., very early peaking). Thus, a combination of these efforts could be at play in the formation of the BAS tritonal. Based on the F0 contours for Italian provided by Gili Fivela et al. (2015), BFD prenuclear pitch accent L+H* tends to peak at the syllable's edge, like BAS, whereas NFD nuclear pitch accent L+H* peaks earlier in the stressed syllable, as illustrated above in Figures 3.14, similar to that of the BAS tritonal pictured in Figure 3.8. To further stress this point, Figure 3.17 combines the Spanish and Italian schematic representations employed in nuclear position in NFDs.

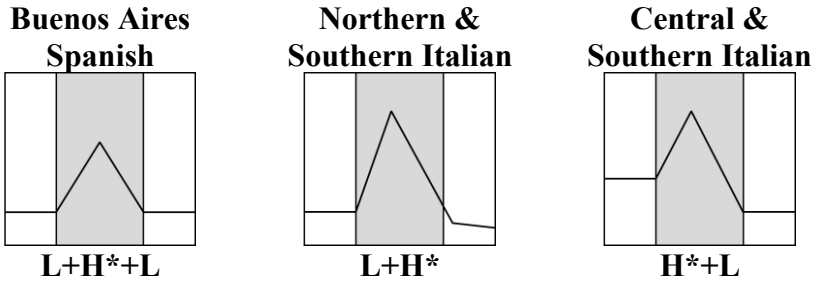


Figure 3.17: Schematic Representation of Nuclear Pitch Accents in NFDs in Spanish (Gabriel et al., 2010; Gili Fivela et al., 2015)

[35] It should also be highlighted that this study is based on a single informant who is not linguistically naïve and was aware of the melody being sought.

Their similarity is striking. This dissertation does not treat the topic of speaker perceptions of these differences in Italian pitch accents. However, regarding the transfer of Italian intonational features to Spanish in Argentina and Uruguay, one possibility could be that this variation converged into what BAS calls the tritonal pitch accent L+H*+L. Another possibility is that the difference is one of pitch accent label choices, such that if any of these three contours appeared in BAS they would all be labeled L+H*+L because they include a rise and complete fall within the stressed syllable. Where the analysis of narrow-focus nuclear pitch accents gets murky, especially in oxytone words (i.e., stress on the final syllable of the word), is in that final fall within the stressed syllable. Is this fall intentional to mark focus or is it just the uncontrolled falling of the voice to a L% boundary tone because the statement is ending? This topic will be taken up for the present data in Chapter 4.

To say that BAS was like Peninsular Spanish before the contact with Italian would suggest that before 1850, BAS used L+<H* in BFD prenuclear positions like CS does. While there are documented instances of L+<H* in prenuclear BAS currently, Pešková et al. (2012) find them to be infrequent, only 5% in 1983 and 6.5% in 2008; instead, L+H* predominates. The same goes for BFD nuclear pitch accents; CS pitch accents, L* and a low-peaking L+H*, are far less common in BAS than H+L*, with L* at 24 % in 1983 and 13% in 2008 and L+H* even lower, with 0% in 1983 and 6% in 2008 (pp. 376–377). However, as will be discussed later, Enbe and Tobin (2008) find “classic Type 2” (i.e., L+<H*) common in Buenos Aires female speakers which is at odds with Pešková et al. (2012).

Since narrow focus is marked by early peaking, and BAS peaks earlier than CS in BFDs, the tritonal L+H*+L takes center stage in BAS, whereas a more salient higher peaking L+H* occurs in CS. Table 3.3 includes the pitch accents, with schematic representations, employed

most frequently in BAS BFDs and NFDs compared to CS BFDs and NFDs. In NFDs, typically only one element is focalized; the non-focalized elements of the NFD adhere to the patterns of that variety. In BAS, the non-focalized pitch accents in NFDs behave as if part of BFDs, whereas in CS, pre-focal peak height remains as in BFDs but, post-focal peak height is reduced or indistinguishable (Face & Prieto, 2007, p. 129), as mentioned before in Section 3.2.5.1. As expected in language, there is variation for which attested alternate nuclear pitch accents and boundary tones are provided.

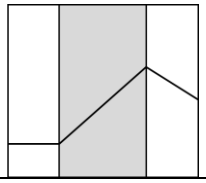
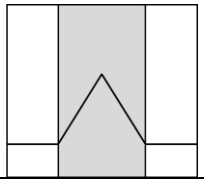
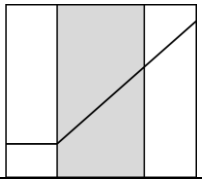
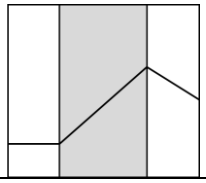
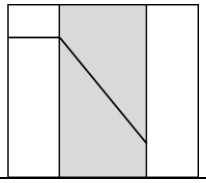
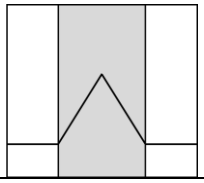
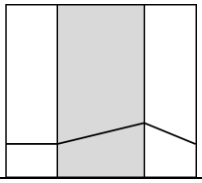
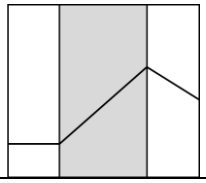
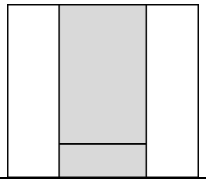
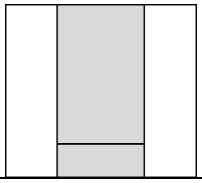
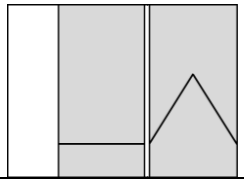
Variety	Buenos Aires Spanish (BAS)		Castilian Spanish (CS)	
Type	BFD	NFD focalized	BFD	NFD focalized
Prenuclear accents	**L+H*** 	**L+H*+L** 	**L+<H*** 	**L+H*** 
Nuclear accents	**H+L*** **L%** 	**L+H*+L** **L%** 	**L+H*** **L%** 	**L+H*** **L%** 
Alt. Nuclear accents	**L*** **L%** 		**L*** **L%** 	**L*** **HL%**[36] 

Table 3.3: BAS BFD and NFD Pitch Accents Compared to Castilian Spanish. (Informed by: Colantoni, 2011; Colantoni & Gurlekian, 2004; Estebas-Vilaplana & Prieto, 2010; Face, 2001, 2002; Face & Prieto, 2007; Gabriel et al., 2010; Pešková et al., 2012)

Intonation studies in Uruguay are few (Araujo, 2013; Correa & Rebollo Couto, 2012; Cunha et al., 2008; Felismino dos-Santos, 2008, 2012; Machado & Escobar, 2023; Rebollo Couto et al., 2014), here I evaluate the contributions of each and how they inform the present

[36] Here the boundary tone schematic representation is included since it is responsible for marking the narrow focus.

study. In chronological order, Cunha et al. (2008) compare Montevideo Spanish and Rio de Janeiro Portuguese intonation in Yes/No questions to the intonational patterns found in the interconnected border cities of Rivera, Uruguay, and Sant'Ana do Livramento, Brazil. This conference proceedings publication was the precursor for the MA Thesis of one of the coauthors, Felismino dos-Santos (2008), and dissertation, Felismino dos-Santos (2012). With her graduate studies completed in Brazil, I could only access the MA Thesis for this dissertation. Felismino dos-Santos (2008) compares the intonation of statements and questions from Montevideo and Rivera, Uruguay, to Sant'Ana and Rio de Janeiro, Brazil. The thesis relies on only two young adult female speakers from each area, so two from Montevideo. The pitch accents used to characterize F0 differ from those used in this dissertation. To make her findings more comparable, I have reanalyzed the F0 contours in her figures and placed my analysis in parentheses. Felismino dos-Santos studies the same sentence throughout: *Francisco vive en Europa*. (Francisco lives in Europe). She finds that Montevideo BFD prenuclear position employs pitch accent L*+H (potentially L+<H*) and nuclear pitch accent H* L% (likely L+!H* L%). In NFDs, for the prenuclear focalized PW *Francisco*, pitch accent H*+L (possibly L+H*) is used, with a nuclear pitch accent L* L% (agreed). When the focalized PW is in nuclear position, her notation does not differ from the BFD pattern, meaning prenuclear L*+H (possibly L+<H*) and nuclear H* L% (L+H* L% this time without the !). Felismino dos-Santos also finds that Rivera's intonation is the same as Montevideo's (Felismino dos-Santos, 2008, pp. 65–103). Due to the number of voiceless sounds present in her chosen sample sentence in key locations[37], it is difficult to accurately label F0's behavior. This MA thesis is the first attempt to study narrow-focus declaratives in Uruguay. It does not provide evidence of the BAS tritonal pitch

[37] Especially in the word *Fran**cis**co*, where the bolded stressed syllable contains a vowel surrounded by two voiceless consonants.

accent and suggests that narrow focus in prenuclear position leads to deaccenting post-focally, which was found in CS. However, this study counts on the analysis of one utterance by two young adult females from Montevideo, leaving significant room from additional research on the topic.

Correa and Couto (2012) briefly mention Montevideo Spanish interrogative intonation as part of a much larger overview of sociolinguistic variation between Montevideo and Buenos Aires, Argentina. Their findings from River Plate intonation are more completely covered by Rebollo Couto et al. (2014), discussed shortly. Araujo (2013) treats BFDs and Yes/No questions in Montevideo Spanish and is the first Uruguayan Spanish intonation study strictly dedicated to Montevideo Spanish. Araujo (2013) and Machado and Escobar (2023), which evaluates Montevideo intonation, rhythm, and tempo in Yes/No questions, Tag questions, and statements (i.e., BFDs), serve as key points of comparison for the present dissertation and will be discussed in greater detail below.

Lastly, Rebollo Couto et al. (2014) study five pragmatic meanings expressed with absolute interrogatives (i.e., confirmation, incredulous, rhetorical, petition, neutral) produced by two informants from Buenos Aires and two from Montevideo to see how the two River Plate dialects compare. They find only confirmation questions to be phonologically contrastive on the basis of intonation, differentiating itself with a different boundary tone than the other four. Additionally, they conclude that there are no phonological differences between BAS and MS for intonation, due to their use of the same pitch accents and boundary tones during the interrogative task (p. 181). Any distinction to be made between them would then be phonetic. However, since pitch accents and boundary tones were insufficient to distinguish these readily perceivable pragmatic meanings, there must be additional linguistic qualities that, perhaps together with

intonation, provide enough linguistic information to draw the required contrast for meaning change.

Seeing as this dissertation only treats the topic of declarative utterances, we return to the descriptions provided by Araujo (2013) and Machado and Escobar (2023) for an introduction to Montevideo BFD intonation patterns. Araujo (2013) counts on six informants (three male and three female), all monolingual college students between the ages of 22 and 26, all born and raised in Montevideo, and whose parents are natives of Uruguay (p. 13). Araujo (2013) does not identify what part of Montevideo the speakers are from, just that they were attending the university.

Recall that in BAS BFDs, L+H* was the most common pitch accent in prenuclear position. Araujo (2013) takes a different approach and combines multiple F0 contours, typically specified separately (i.e., L+H* and L+<H*), under one pitch accent, L+<H*. "The most common contour, [L+<H*], occurred in 88% of the prenuclear stressed syllables. This contour was characterized by a rising F0 that generally started at the beginning of the tonic syllable. The end of the contour was flexible, occurring between the end of the tonic syllable [L+H*] and the end of the posttonic syllable [L+<H*]" (Araujo, 2013, p. 20). Additionally, Araujo (2013) finds L*+H to be very infrequent, at 4% (p. 52). However, Araujo (2013) does employ the L+H* pitch accent in nuclear position when the peak falls clearly within the stressed syllable rather than at the right edge. Araujo (2013) adds that "the ratio between tonic alignment [L+H*] and posttonic alignment [L+<H*] in our data was approximately 1:1.2. The distribution was fairly balanced, with slightly more early rises with posttonic alignment [L+<H*] than with tonic alignment [L+H*]" (p. 45). Araujo (2013) treats these alignments as allotones and labels them both L+<H*, which provides the overwhelming 88% frequency. However, due to this mixing of contours

under one pitch accent, MS looks like CS on paper, but in practice, it appears to be a mixture of BAS and CS prenuclear BFD intonation patterns. Araujo (2013) also notes that Gabriel et al. (2010) do the same for BAS, but that they select the tonic peak alignment, L+H*, as the primary and the posttonic L+<H* as the allotone in free variation. However, Gabriel et al. (2010) do not combine the two pitch accents like Araujo (2013) but explain that they often occur in the same prenuclear position. This dissertation pushes back on labeling tonic and posttonic alignment the same for the sake of accuracy and comparability, even if the conclusion is that they are not always phonologically contrastive. Moreover, the larger data set employed in this dissertation indicates that posttonic alignment, L+<H* in Montevideo Spanish is not randomly distributed.

Regarding pitch accents in nuclear position, Araujo (2013) finds that pitch accent L+H* is the most prevalent, peaking within the confines of the stressed syllable and followed by an L% boundary tone. Alternative options for nuclear pitch accents occurring in 29% of the cases are described by Araujo (2013) as *deaccented* (pp. 64-65). This dissertation describes these nuclear pitch accents with the monotonal pitch accent L*, leaving the term 'deaccented' for cases where prenuclear pitch accents fail to rise. In nuclear position in BFDs, it is common for the final PW to have a lower or indistinguishable rise as the voice trails off into silence; this is marked as L* in CS and BAS. Deaccenting is seen as a possible characteristic in nuclear position for NFDs (O'Rourke, 2012), but not for BFDs. The long fall pitch accent H+L*, prominent in BAS and a noted product of the Spanish-Italian convergence theory, is not included by Araujo (2013).

Table 3.4 is provided below to summarize and include schematic representations of MS BFD intonation based on the findings and conclusions provided by Araujo (2013). Notice how the same F0 contour is drawn (with a dashed line) for both prenuclear and nuclear pitch accents and yet are labeled differently. This dissertation treats these F0 contours separately. Lastly,

Araujo (2013) only examines BFDs and Yes/No Questions, so the inventory provided here has fewer pitch accents and boundary tones than studies that include all utterance types.

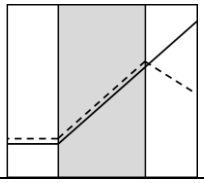
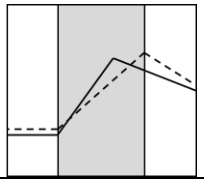
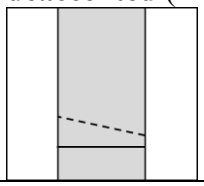
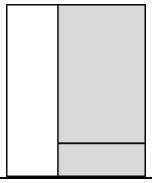
Variety	Montevideo Spanish (MS)	
Type	BFD	
Prenuclear accents	**L+<H*** 	
Nuclear accents	**L+H*** **or** 	**deaccented** (L*) 
IP Boundary Tone	**L%** 	

Table 3.4: MS BFD Pitch Accents and Boundary Tone. (Informed by: Araujo, 2013)

Machado and Escobar (2023) take a similar approach to that of Araujo (2013) in simplifying the pitch accent inventory, but instead combine L+<H* with L*+H, in favor of the L*+H notation, as was done prior to the revision to Sp_ToBI by Face and Prieto (2007). They define L*+H as "characterized by the presence of a posttonic peak that starts rising during the tonic syllable and fully realizes in the following one" (p. 6). This is typically the definition given in more recent work for pitch accent L+<H*. On the other hand, L*+H is defined by the Sp_ToBI Training Materials as "a low tone on the accented syllable followed by a rise on the posttonic syllable. The peak is typically realized at the end of the posttonic syllable, and sometimes later." (Aguilar et al., 2009). This choice by Machado and Escobar, to group these pitch accents, implies, on paper, that MS sounds more similar to Puerto Rican (Armstrong, 2010) and Dominican Spanish (Willis, 2003) which prefer L*+H, with which Montevideo has little

contact and commonality, and which perceptually should be easily distinguishable. Machado and Escobar (2023) include 30 female monolingual speakers of Montevideo Spanish, all native lifelong residents of Montevideo. Like this dissertation, the authors categorized their informants into three generational groups, but further detail is not provided. While the authors recorded a variety of tasks, the stimuli presented is quite rigid, and therefore assumed to have been presented in the "Contextualized Task (CT), intended to generate structured yet natural responses to 80 fictional scenarios" (Machado & Escobar, 2023, pp. 5–6), since 20 Yes or No questions, 20 Statements, 20 Tag questions, and 20 distractors equals 80 scenarios. This task type is similar to that of the Discourse Completion Task employed in this dissertation, however the author's stimuli are restricted to utterances only containing two prosodic words, one prenuclear and the other nuclear. The words were between 2 and 4 syllables long and were consistently stressed on the penultimate syllable. Additionally, based on the sample provided, the words and structure remained the same across utterance types making intonation the only difference between them. This level of control does allow for crisp comparisons across utterance types and eliminates complicating factors. However, it has the side effect of making the intention of the task visible to the informant which can affect the informant's production. While restricting the utterances to two PWs allows for equal numbers of each, it reduces naturalness, eliminates our ability to see how prenuclear pitch accents behave in a sequence, and does not offer insights into the complexity of grammatical category, syntax, or communicative value. Therefore, the difference in task type will prove to be a valuable point of comparison between this and the present dissertation.

Machado and Escobar (2023) find for BFDs that, in prenuclear position, L*+H (i.e., L+<H*) is the most common, whereas in nuclear position L* predominates at 72.95%, with

L+H* in a distant second at 19.54% (p. 7). This would suggest, like Araujo, that MS is more similar to CS than BAS. These findings also suggest that language contact with Italian has not influenced Montevideo intonation as it has Buenos Aires, despite their common history. Interestingly, Araujo (2013) found more instances of L+H* in prenuclear position, leading her to group them with L+<H*. Machado on the other hand, found that "MS speakers sporadically use prenuclear L+H* in declaratives to mark early focus…This is not in line with the expected neutral utterance" (p. 6). In the use and nature of L+H* the publications disagree. This dissertation provides a more complete picture of how intonation interacts with social and structural or grammatical variables and through this approach is able to demonstrate why Araujo (2013) and Machado and Escobar (2023) found the patterns they did. The key to understanding intonation is to allow the data to demonstrate patterns of its own. By severely restricting the task or by not interviewing sufficient informants, patterns found cannot be generalized and therefore incomplete conclusions can be drawn with respect to the nature of language.

3.3 Sociolinguistic Considerations

Before speaking scientifically on this topic, let us talk about how language and society interact. It boils down to input and peer groups. Language acquisition requires input, which is obtained from the speaker's speech community. A child's speech community comprises family, which likely grew up together, and friends residing near the child's home. The young speaker makes friends with neighbors and eventually with classmates who also live nearby. While initially exposed to their parent's speech, speakers tend to emulate the speech of their peers, with whom they also spend considerable amounts of their day, thus creating linguistic cohorts by age/generation. During this time of hormonal changes and physical development and change, preteens and teens seek to make sense of what it means to be a man or woman in their society,

and some challenge these norms. As they discover physical attraction, each seeks to understand how to attract the people they are attracted to, and this can manifest in deliberate attempts to appear more mature. Linguistically, this can take the form of boys trying to deepen their voices (Pisanski et al., 2018) and feeling embarrassed when their voices crack. The linguistic trends set in these young cohorts form the foundation of their sociolect. In English, for example, each generation has its own word for 'cool' things (e.g., rad, dope, sweet, sick, fire). Linguistic features can either persist, eventually replacing the features employed by previous generations, or the youth can outgrow their linguistic contributions and adopt the features of the older generations, this may be aided by their incorporation in the workforce.

By attending school, students gain input from their teachers, who may have more education than their parents and certainly more than their peers. Their teachers have also likely spent significant time outside of the student's neighborhood and had access to a more linguistically diverse population. If the student does not study or finish school, this often limits their upward mobility, and they are less likely to leave their initial speech community for prolonged periods. Dialectologists traditionally sought out nonmobile, older, rural males (NORMs) to document conservative regional speech patterns (Chambers, 2015). Through increased education or exposure to other speech communities, speakers become aware of certain linguistic stigmas or, at the very least, notice that other speech communities speak differently. This awareness was clear when attempting to recruit rural speakers for this dissertation. They felt my time would be better spent interviewing people who speak "better" than they do. As a speaker increases in education and begins to have more dealings with individuals with high levels of education and socioeconomic status, they may choose to adopt linguistic features that 'elevate' their variety as they seek acceptance into a new speech community, one of

professionals, for example. Once aging out of the workforce, prolonged exposure to upcoming linguistic trends is often limited to interacting with grandchildren. Their speech community typically shrinks and may center around their children or retired individuals from their initial linguistic cohort.

Orderly heterogeneity (Weinreich et al., 1968) observes that language varies in a structured rather than random fashion at the inter- and intraspeaker level. Within any given variety, there are ranges of acceptability for the surface realization of any underlying representation. For example, informants selected for this dissertation were asked to say the same phrase identically three times, yet their F0 tracks were not identical, even when they sounded the same. Instead, each F0 track fell within the bounds of acceptability, causing the minimal variation between them to go unperceived. Beyond the role of the physiology of the vocal track that varies both from one speaker to the next and across the lifespan of a single speaker (Gussenhoven, 2004), there are social factors that impact linguistic varieties. In the 1960s it was "the normative idea that in a democratic society language should not contribute to perpetuating social inequality [that] provided a strong incentive to research into the linkages between social stratification and linguistic variation" (Coulmas, 2013, p. 21). Within this context, William Labov, published his foundational work titled *The Social Stratification of English in New York* (Labov, 1966), leading the way in the study of the social significance of dialectal variation, known as *variationist sociolinguistics*. The sociolinguistic variation in each language is restrained by its underlying linguistic system, and is defined as "the alternation of two or more expressions of the same element, when this does not involve any type of alteration or change of semantic nature and when it is conditioned by linguistic and social factors" (Moreno-Fernández, 2009, p. 39, my translation). "Language exists in context, dependent on the speaker who is using

it, and dependent on where it is being used and why" (Tagliamonte, 2006, p. 3). In this context, language is subject to social influence through its users. Through language, and with language, users establish and communicate their identities, which Norton (1997) defines as "how people understand their relationship to the world, how that relationship is constructed across time and space, and how people understand their possibilities for the future" (p. 410). Language is a reflection of our identity, the construction of which is not devoid of societal input, nor are we all so unique that we have nothing in common. Language use is about choice, and sociolinguistics is the study of speaker choices (Coulmas, 2013). Seeking acceptance in a specific linguistic community is a choice, often a conscious one, that inherently increases exposure to that community, ultimately leading to it forming part of the speaker's identity. Elordieta and Romera (2021) have shown that when Spanish and Basque are in contact, the adoption of Basque intonation in Spanish does not correlate with the speaker's linguistic profile but rather with those that have "a higher degree of contact with the Basque ethnolinguistic group, and more positive attitudes towards the Basque language and the Basque ethnolinguistic group" (p. 286). Therefore, a positive attitude toward a contact language is a choice that has proven to have linguistic ramifications. Should speakers along Uruguay's northern border with Brazil, for example, begin to embrace a negative attitude towards Brazil, Brazilians, or the mixing of Spanish and Portuguese, this would likely begin to be reflected in the region's language. Therefore, beyond typical gender, age, and social class, exposure to and attitude toward another linguistic community is a prominent indicator of linguistic borrowing and transfer.

Through variation analysis (Tagliamonte, 2006), countless studies have found that linguistic variation correlates with social factors such as gender, age, social network, and social class, commonly substituted for education level (Blas Arroyo, 2005). However, social class or

socioeconomic status includes a great deal of complexity in terms of occupation, income, and education. It is often measured using other factors, such as whether a speaker owns or rents their home (Moreno-Fernández, 2009). During data collection for this dissertation, the main social variables sought were age, sex/gender, education, and occupation. However, as this dissertation compares two departments, one a densely populated urban center and the other a sparsely populated landscape with most residents living in the department's capital, the options for education and occupations vary substantially, as do their social networks. With most Montevideo informants having completed tertiary education, conclusions cannot be drawn based on education as a social variable. In Durazno, the education level is more evenly balanced. However, it favors the completion of secondary education, partly because speakers who had spent significant time in Montevideo (e.g., to attend the university) were excluded from the sample to ensure the departments could be compared more fairly. For this reason, this dissertation only examines the roles of age and gender on variation.

It is also worth highlighting that although language has been demonstrated to vary along these social axes, the strength of each variable depends on the speech community and the linguistic feature. For example, in a given speech community, alternation of specific linguistic features may be more strongly tied to sex rather than age or vice versa. In another speech community, profession or education level could be the common variable shared among speakers who employ specific linguistic forms (Moreno-Fernández, 2009, p. 40). In the following sections, this dissertation explores the roles of age and gender for linguistic variation. Finally, due to the breadth of publications on the topic of sociolinguistic variation, this dissertation centers on those demonstrating sociolinguistic variation in Spanish intonation, which is covered in Section 3.4.

3.3.1 The Role of Gender

Gender refers to the socially constructed roles, behaviors, expressions, and identities of girls, women, boys, men, and gender-diverse people. On the other hand, sex is usually categorized as female or male, but there is variation in the biological attributes that comprise sex. The individual's biology is not what causes the speaker to adopt different linguistic features. Instead, gender, which is socially constructed, is used to discuss the topic of language, which is also constructed and influenced by society. Nevertheless, most studies on language and gender treat this social variable as a male/female dichotomy, which mirrors the sex of the informants (D. Cameron, 2003; R. Cameron, 2005; Froemming & Rao, 2021; Michnowicz & Barnes, 2013; Roseano et al., 2019, among others).

This dissertation does not investigate the effect of gender on language beyond the man/woman or male/female dichotomy. In this dissertation, the terms man/male and woman/female are used interchangeably, as also occurs throughout the literature on the topic. In this dissertation, male and female are often used when age is not being considered and when used as an adjective (e.g., female intonation), whereas boys and men are used when age is being considered. While gathering data across Uruguay, only two individuals recorded differed from the male/female dichotomy, both from departments not sampled in this dissertation. Therefore, as it relates to the informants of this dissertation, all men sampled are male-presenting, and all women sampled are female-presenting. Lastly, sexual orientation was not recorded, and therefore, no conclusions are sought on this topic. While boys and girls spend time together growing up, each learns what it means linguistically to be and speak like a boy or girl by emulating their older peers. This, and other societal pressures lead males and females to adopt

often alternating forms. As we will see shortly, females tend to adopt less marked[38], more prestigious linguistic features than males, as a result these features typically increase intonational contrasts, which should increase clarity in conversation. However, it is currently unknown if females mark greater contrasts with the intention of increasing clarity or this is an unintended side effect of their speech choices.

The impact of social variables differs across speech communities and linguistic features. Some studies find sex or gender to be strongly correlated with linguistic alternation (Fontanella de Weinberg, 1973; López García & Morant, 1991), while others find it secondary to other social variables such as education (Barrios, 2002b), and still others do not find a correlation and conclude that gender is not a factor. Most intonation studies have too few informants to be able to draw conclusions about potential social variation. Those that do typically find that males and females' pattern differently and that, many times, females employ forms typical of upper-class or higher-educated speakers. This topic of sociolinguistic variation in Spanish intonation is covered in Section 3.4.

3.3.2 The Role of Age

Age is a biological characteristic, which like sex does not cause a speaker to adopt specific linguistic characteristics due to the speaker's biology. However, the biology of aging can impact speech production. Children learn to express themselves with greater fluidity as they age, and as speakers grow old, their speech rate may begin to slow (Ramig, 1983). Cartei et al. (2019) find that "[c]hildren have some knowledge of the sexually dimorphic acoustic cues underlying the expression of gender" and are capable of manipulating pitch to reflect more masculine or

[38] This term varies in its reference throughout the literature. Enbe and Tobin (2008) categorize the prenuclear pitch accented preferred by females as 'marked' and the alternating pitch accent preferred by males as unmarked because it is more common in the world's languages.

feminine tones (p. 1). However, unlike gender, age is not socially constructed but can play a key role in society. Different age groups are treated differently in society. Social pressures may affect how individuals present themselves linguistically as they age. The combination of age and recording date also signals a speaker's birth year and linguistic cohort, effectively placing them on the timeline of linguistic evolution.

Languages change, and these changes take time. It has also become accepted that social variables influence linguistic change (Labov, 1972). When seeking to know if a linguistic change has occurred, one can compare accounts of the same language taken at different times. If there is a new feature or a previous feature that is now missing, then clearly a change has occurred (Labov, 1994, p. 43). There are two methods for studying a linguistic change in progress: *apparent time* (i.e., the distribution of linguistic variables across age levels) and *real time* (i.e., changes in the same individuals longitudinally). Studies relying on apparent time must account for additional factors such as *age grading*, where the difference observed across different age groups at a single point of time is indicative of changes in the speech of an individual as they move through life rather than a *historical change*, a change in the speech community as it moves through time (Eckert, 1997). Studying language change in real time can provide findings that indicate age grading but should the features in question not behave in that manner, it is the surest way to observe change in progress. The difficulty with this observation method is the inherent difficulty of studying the same group of speakers throughout their lives (i.e., panel study) or collecting samples of comparable but different speakers at successive points in time (i.e., trend study). “A trend study with an age-graded sample is the only kind that can unequivocally show change in progress as it shows successive cohorts at each stage of life. A panel study is the only kind that can unequivocally show change in the individual lifetime, as it sees the same people at

different stages of life. Trend studies, however, can yield convincing evidence of both kinds of change" (Eckert, 1997, p. 153). For example, I collected recordings in Uruguay from all adult age groups in 2022 for this dissertation. Should I return in 2032 and rerecord the same individuals and compare the two, I would have a real-time panel study that can show me how an individual's speech evolves with age. If when I return in 2032, and I instead record different individuals from comparative communities, I would have a trend study that can tell me if each age group has the same features as ten years prior or if features that were previously found in the lower age group have made their way into the older age groups, suggesting that the speech patterns of the young group are stable and are replacing those of the older age groups over time. In Buenos Aires and Uruguay, the previous preference for the voiced postalveolar fricative [ʒ] is being replaced by the voiceless variant [ʃ], a change estimated to have begun in the 1940s, with only the oldest generation maintaining the voiced allophone today (Barrios, 2002a; Canale & Coll, 2016; Chang, 2008; Fontanella de Weinberg, 1978; Thun & Elizaincín, 2000).

Studies using apparent time, like the examples discussed shortly, provide snapshots of the linguistic features stratified by age. If such studies are conducted regularly in comparative communities, a comparison of the studies can yield a real-time panel study. If the same patterns emerge, either there is no linguistic change occurring, or the differences seen among different age groups are stable and are the result of age grading. In this case, these features come and go with age rather than contribute to a larger shift in the features of the speech community, where new features overwrite the features common to past generations.

Age as a social variable may overlap with other factors like education. This overlap with education is especially evident in rural Uruguayan communities where, historically, access to secondary education was limited (Fernández Aguerre et al., 2021). Therefore, lower age often

overlaps with higher levels of education because today's youth have greater access to education than their parents and grandparents had. Consequently, the older participants sampled have less education, which is another reason this dissertation does not explore education as a social variable. Age can also interact with gender. Richard Cameron (2005) finds that linguistic differences based on gender vary with age. Studying the production of Spanish intervocalic /d/ and word final /s/, Cameron demonstrates that there is little difference between the realization of these phonemes in boys and girls in early childhood. In adolescence, boys and girls differ the most in their production because age and gender segregation are more strongly practiced or enforced during the teenage years. By 18 years old, the difference has reduced, and males and females speak more similarly throughout their working years due to increased cross-age and cross-gender interaction, which reduces the degree of difference. However, after the age of 60, coinciding with retirement and therefore decreased cross-age and cross-gender interaction, the linguistic differences between males and females again begins to increase (p. 40). This pattern of linguistic change over the course of an individual's life is a prime example of age grading.

3.4 Social Variation in Spanish Intonation

3.4.1 Gender and Spanish Intonation

Moreno-Fernández (1999) finds in Alcalá (Madrid) that upper-class and female speakers preferred a high nuclear pitch accent falling to a low boundary tone in absolute interrogatives. In contrast, lower-class speakers preferred a low nuclear pitch accent and a rising boundary tone. Quilis (1999) finds that women employ a faster tempo, exhibit more pronounced differences in syllable duration when considering speech rate, use much wider fundamental intervals (interpreted here as later peaks), and more pronounced fundamental movements (interpreted here as greater contrast in peak height), compared to the relative monotonal speech of men

(interpreted here as flatter F0 contours)[39] (pp. 488–489). Seemingly contrary to the finding of Quilis (1999), for Mexican Spanish, Martín Butragueño (2004) finds that males prefer a circumflex nuclear configuration L+¡H* L% in declaratives, whereas females preferred downstepped (!) nuclear peaks.

Mexican Spanish *fresa* speech, like the sociolinguistic English melody denominated *uptalk,* defined as declarative sentences ending with rising intonation as if they were questions, is attested among females as a linguistic marker of socioeconomic power and used by those who wish to project this image. *Fresa* speech manifests intonationally as rising boundary tone H% or LH% (Holguín Mendoza, 2011).

Michnowicz and Barnes (2013) find that in Yucatan Spanish declaratives, females prefer earlier peaks than males. This difference is small but statistically significant. Michnowicz and Barnes note that "this could be perceived as going against the sociolinguistic tendency for women to use more standard or prestigious forms (Labov, 2001), but more likely is related to social and geographic mobility, as men are more likely to travel for purposes of work, which brings them into increased contact with other varieties of Spanish" (2013, p. 232). To the contrary, and more in line with linguistic tendencies, Enbe et al. (2006) and Enbe and Tobin (2007, 2008) studying BAS intonation, find that females produce more "classic Type 2" (i.e., L+<H*) prenuclear declarative pitch accents than males who prefer "classic Type 1" (i.e., L+H*). Pitch accent L+<H* is not typically considered the most common in BAS, which typically employs L+H* in prenuclear position (Colantoni, 2011; Colantoni & Gurlekian, 2004; Gabriel et al., 2010). However, the frequency of this finding among women and children in BAS

[39] Enbe and Tobin (2008) interpret this description provided by Quilis (1993, 1999) as "females prefer to use what we refer to as the marked prosodic patterns ["classic Type 2" L+<H*] which provide greater communicative contrasts in intonation as opposed to the more monotonic prosodic patterns found in males" (p. 146).

brings into question the findings that BAS prefers L+H* over L+<H*. Lastly, Froemming and Rao (2021) find in Ecuador, in Cuenca Spanish, that tritonal pitch accent L+H*+L is employed by females at nearly double the rate of males in BFDs.

González (2022) compares urban Santiago de Querétaro and rural San Joaquín Mexican intonation and finds more salient differences in declarative intonation between men and women than along the urban/rural axis, covered in Section 3.4.3. In prenuclear position, both urban and rural groups report the same linguistic tendencies. However, these vary by gender, meaning urban and rural men pattern together, preferring pitch accent L+<H*, whereas urban and rural females pattern together, preferring pitch accent H*. In nuclear position, men in both locations favor pitch accent L*, or L+¡H*, whereas urban women prefer H* and rural women L+H*. Regarding boundary tones, this alternation aligns more with the urban/rural axis. However, rural men employ fewer overall options than rural females selecting either boundary tone L% or M% (i.e., !H%), whereas rural women prefer M% (i.e., !H%) but are less consistent. Urban men and women use both M% and HM% with high frequency, with women using M% more and men using HM% more (pp. 85–86)

3.4.2 Age and Spanish Intonation

Regarding age as a social variable on intonation, we return to Enbe and Tobin (2008), who, apart from showing variation between genders, as discussed in the previous section, also find variation across ages. Buenos Aires boys favor the BFD contours preferred by females, “classic Type 2” (i.e., L+<H*), whereas adult males aged 18-78 prefer “classic Type 1” (i.e., L+H*) (p. 145). This study of linguistic change in apparent time also demonstrates age grading. However, it differs from the previous example by Cameron (2005) in that these young boys are coming into their own as maturing males and begin to adopt the linguistic features of men,

replacing features they maintained as children that they may have acquired from their mothers[40]. Should these boys not change their pitch patterns as they age, one would expect pitch accent L+<H* to overtake L+H* as the dominant prenuclear pitch accent in BAS in males and females. However, given the preference of young adult males for pitch accent L+H* in BAS, such a shift does not appear to be happening. This dissertation can only speak to apparent time but sets the foundation for future longitudinal work.

3.4.3 Rural/Urban Spanish Intonation

As mentioned briefly in Section 2.6.2, research on rural Spanish intonation is growing. While nothing on this topic has been done in Uruguay or Argentina, to my knowledge, Coronado Hernández (2014) finds declarative intonation contours in rural Mexico that differ from those documented for urban Mexican Spanish from the *Distrito Federal* (DF), described by de-la-Mota et al. (2010). Coronado Hernández compares two rural varieties to the urban Mexican DF variety. Coronado Hernández (2014) studies declaratives taken from spontaneous speech, whereas de-la-Mota et al. employed a discourse completion task similar to that used in this dissertation. Since de-la-Mota et al. found nuclear pitch accent L+H* with boundary tone L% to be common in both BFDs and NFDs, Coronado Hernández (2014) does not differentiate between them in his comparison. The main difference between the rural varieties and the urban variety was a preference for the upstepped pitch accent L+¡H* versus the urban L+H*.

Additionally, the Pátzcuaro rural variety differentiates itself further by using boundary tones M% or LM%, which in urban Spanish is found in exhortative wh- questions, uncertainty statements, and vocatives. As explained in section 3.2.3, these boundary tones are currently labeled: !H% or L!H%, respectively. Based on the F0 contours provided by Coronado

[40] This could be evaluated by controlling for the family dynamic by selecting and recording young boys from male only households.

Hernández, similar F0 contours have been labeled !H% in this dissertation, as described in Chapter 4.

As covered in Section 3.4.1, González (2022) compares urban Santiago de Querétaro and rural San Joaquín Mexican intonation and mainly finds differences between men and women, with less rural/urban distinction irrespective of gender. However, in declarative boundary tones, the rural variety preferred L% (almost entirely among men) and M% (i.e., !H%), whereas the urban variety preferred M% and HM%[41], a boundary tone not attested in other studies compared. This preference for M% in urban Santiago de Querétaro differs from the urban preference in the DF Spanish for L% (de-la-Mota et al., 2010). In rural Mexico, Coronado Hernández (2014) found L% common in Tlachco and M% (i.e., !H%) in Pátzcuaro, with no mention of HM%. Additionally, the urban women, according to González (2022), used nuclear pitch accent H* with great frequency, a trend not attested by de-la-Mota et al. (2010). These studies demonstrate that, within a single country, urban varieties differ from rural varieties, and urban varieties differ from each other, as do rural varieties.

Lastly, recall from section 3.3 that Elordieta and Romera (2021) found that exposure and attitude toward Basque were indicators of higher adoption of Basque information-seeking yes/no question intonation in Spanish. While this was the case in the urban centers of Bilbao and San Sebastian, in rural settings, the adoption of Basque intonation was 93% on average, with no effect from the degree of contact or attitudes towards Basque (Elordieta & Romera, 2022, p. 1). This is "probably due to the stability of the variety of Spanish heavily influenced by Basque prosody. In Navarre there is a lower presence of falling contours, which would suggest a lower

[41] It is described as a "Rise-plateau of F0 equal to or greater than 3 semitones with respect to the nuclear accent, which can be H* or L*. The rise is achieved before the end of the syllable, which then plateaus" (González, 2022, p. 80, my translation)

degree of prosodic convergence of Spanish and Basque, due to the smaller presence of Basque in Navarre" (Elordieta & Romera, 2022, p. 4).

3.5 Conclusion

This chapter introduced the reader to pitch and the theoretical framework (i.e., the Autosegmental-Metrical Model) consistently used in intonation research. Section 3.2.2 explored the Spanish Tones and Break Indices (Sp_ToBI) used to standardize the notation of intonational events to increase crosslinguistic comparability. The widely accepted inventory of pitch accents and boundary tones used in the analysis of Spanish intonation was presented in section 3.2.3, along with recent updates to the labeling system, including the addition of the tritonal boundary tone used in several varieties of Spanish in the Americas. To effectively determine which elements of an utterance receive a pitch accent, section 3.2.1 explained which Spanish words carry stress and contribute to the melody of the utterance. Moving up the hierarchical structure, this chapter illustrated the utility of intermediate phrases (ip) within intonational phrases (IP). Since this dissertation only treats broad and narrow-focus declaratives, examples were provided of each and how these are differentiated in other Spanish varieties. The focus then turned to the main varieties for comparison: Buenos Aires Spanish (BAS) and Castilian Spanish (CS). Within this discussion, I addressed Italian BFD and NFD patterns and how Italian intonation has presumably affected the intonation of River Plate Spanish. I also covered briefly how Galician and Basque behave intonationally. Compared to BAS intonation, much less has been done on Uruguayan intonation, and all studies to date that are relevant to the current topic of BFDs and NFDs were discussed. In Section 3.3, I reviewed the roles of age and gender on sociolinguistic variation, and in Section 3.4, I discussed the research that treated these social variables within Spanish intonation. Additionally, I included in Section 3.4 the limited yet growing amount of

research on differences found between urban and rural Spanish varieties, as such environments condition a number of other sociolinguistic variables like education, occupation, social class, and social network. Throughout this chapter, the emphasis was always on Spanish intonation specifically.

Moving forward, Chapter 4 details the informants selected for this dissertation, the tasks they performed, and how it was analyzed. Chapter 5 presents the results for Montevideo and Durazno intonation accounting for sociolinguistic variation. In Chapter 6, conclusions for the present data are provided and compared to patterns established for other Spanish varieties. These conclusions are also applied to the current theoretical underpinnings addressed in this chapter.

Chapter 4: Methodology, Tasks, and Participants

4.1 Introduction

This chapter presents the research objectives and questions, lays out the study procedures and informant selection criteria, provides the linguistic profiles of the selected informants, and illustrates how the data was analyzed. The audio recordings analyzed in this dissertation come from my own Voces de Uruguay Linguistic Corpus (VULC)[42] (Goodale, 2022). The study procedures and recruitment methods for VULC are presented first, followed by an explanation of how the informants for the present dissertation were selected and grouped. The linguistic profiles of each informant are presented, and details about recruitment and recording in both departments are discussed. The Discourse Completion Task (DCT) used to make the analyzed recordings is presented and made accessible via prosodic and syntactic hierarchies (see Appendix B). Examples and explanations are provided to demonstrate how all pitch accents and boundary tones were coded using Sp_ToBI. Lastly, the statistical model used to analyze the linguistic patterns is explained.

4.2 Research Questions

Motivated by the in-depth review of the relevant literature in Chapters 2 and 3, this dissertation has the following objectives:

1) To provide a phonological description of the intonation patterns used in the Uruguayan departments of Montevideo and Durazno, as they occur in Broad-Focus Declaratives

[42] The fieldwork for this dissertation was made possible through the generous support of various research grants. These include a U.S. Student/Open Research Fulbright Award to Uruguay in 2022, a Lois Roth Foundation Award, and research grants from the University of Wisconsin-Madison. This study, titled Patterns in Uruguayan Speech, was approved by the Institutional Review Board (IRB) of the University of Wisconsin-Madison ID: 2021-0228.

(BFDs) and Narrow-Focus Declaratives (NFDs) extracted using a Discourse Completion Task (DCT).

2) Address any sociolinguistic variation present in the intonation patterns of these two departments according to the social variables of age and gender.
3) Explore the role of grammar, syntax, and communicative value on the selection of phonological targets (i.e., pitch accents and boundary tones).

To reach these objectives, this dissertation seeks to answer the following research questions:

1) What are the Sp_ToBI pitch accents and boundary tones that comprise the inventory of BFD and NFD patterns in the speech of Montevideo and Durazno, Uruguay? How do the patterns from each department compare to one another? How does this comparison inform our understanding of the linguistic influences in the region including language contact? What, if any, effects do the social variables of age and gender have on the frequency of these pitch accents and boundary tones?
2) How does the intonation of Montevideo and Durazno, Uruguay compare to that of Buenos Aires Spanish (BAS) and Castilian Spanish (CS)?
    a. Does the speech of Montevideo or Durazno, Uruguay, follow the previously mentioned BFD early prenuclear peak alignment (L+H*) tendencies attested in BAS or the delayed alignment tendencies (L+<H*) attested in CS?
    b. Does the speech of Montevideo or Durazno, Uruguay, follow the previously mentioned BFD long-fall nuclear peak alignment tendencies (H+L*) attested in BAS or the early peaking alignment (L+H*)/monotonal low pitch accent (L*) tendencies attested in CS?

c. Does the speech of Montevideo or Durazno, Uruguay, employ the previously mentioned tritonal pitch accent (L+H*+L) to mark narrow focus in NFDs as attested in BAS, or do these varieties mark narrow focus with the early peaking pitch accent (L+H*) attested in CS? Do these varieties use different pitch accents or boundary tones to convey different types of narrow focus? Do upstepped peaks (¡) and boundary tones play a role in marking narrow focus?

Based on the history presented in Chapter 2 and the linguistic impressions, discussed in Chapter 6, made by the 533 VULC informants, from which this dissertation pulls, it is predicted that Durazno and Montevideo will differ intonationally, and that Montevideo will employ F0 contours more like those of BAS since both cities had similar language contact with Italian. On the other hand, Durazno is predicted to employ less Italian-like intonation due to the decreased influence in the region and rural origin.

It is also predicted that social variation regarding gender will be seen, as has been documented in BAS intonation (Enbe & Tobin, 2008). VULC informants also find differences in male and female speech habits, patterns, and preferences as will be discussed in Chapter 6. Linguistic variation by age is attested in the region, exemplified by the change in progress of *zhesímo* to *sheísmo* in Buenos Aires (Chang, 2008; Fontanella de Weinberg, 1978) and Uruguay (Canale & Coll, 2016; Michnowicz & Planchón, 2020; Thun & Elizaincín, 2000). However, its influence on intonation is less certain. Buenos Aires boys modify their intonation patterns as they age to match their adult male speech community (Enbe & Tobin, 2008). However, as Uruguayans from the interior move to Montevideo and increasingly interact with the Montevideo youth, two options are possible: 1) the intonation of the younger generation in Montevideo will begin to differ from that of the older generation, which is predicted to be more

like BAS intonation, or 2) that the Montevideo youth, being in the majority position, will resist the influence from the interior, and therefore not differ by age. The same options exist for youth in Durazno who find themselves increasingly exposed to media content from Montevideo and beyond. Durazno youth could either adopt features common to Montevideo or recognize them as different and seek to preserve their linguistic identity. Despite the increased exposure to other varieties, I predict that the intonation of Montevideo youth will not differ from that of the older generations. However, I predict that the intonation of Durazno youth will differ from the older generations as they grow up in a more urban and technologically interconnected society.

4.3 Procedure

4.3.1 Voces de Uruguay Linguistic Corpus (VULC)

This dissertation pulls audio recordings from a much larger data set I created in 2022 from across Uruguay via in-person interviews. VULC (Goodale, 2022) consists of 533 speakers, each of which completed the following tasks in the described order. Each interview began with an extensive demographic survey followed by three speaking tasks:

1. A sociolinguistic interview that elicited spontaneous speech
2. The Discourse Completion Task (DCT) developed for the *Interactive Atlas of Spanish Intonation* (Prieto & Roseano, 2009)
3. The reading of the fable *El viento norte y el sol* (The North Wind and the Sun).

Following these three speaking tasks, the informants completed an exit survey, which gathered linguistic impressions. All informants were unpaid volunteers, and each interview typically lasted between 1 and 1.5 hours . Informants were sought from big cities and small towns. Figure 4.1 shows the geographic distribution of all VULC informants, colored by Department.

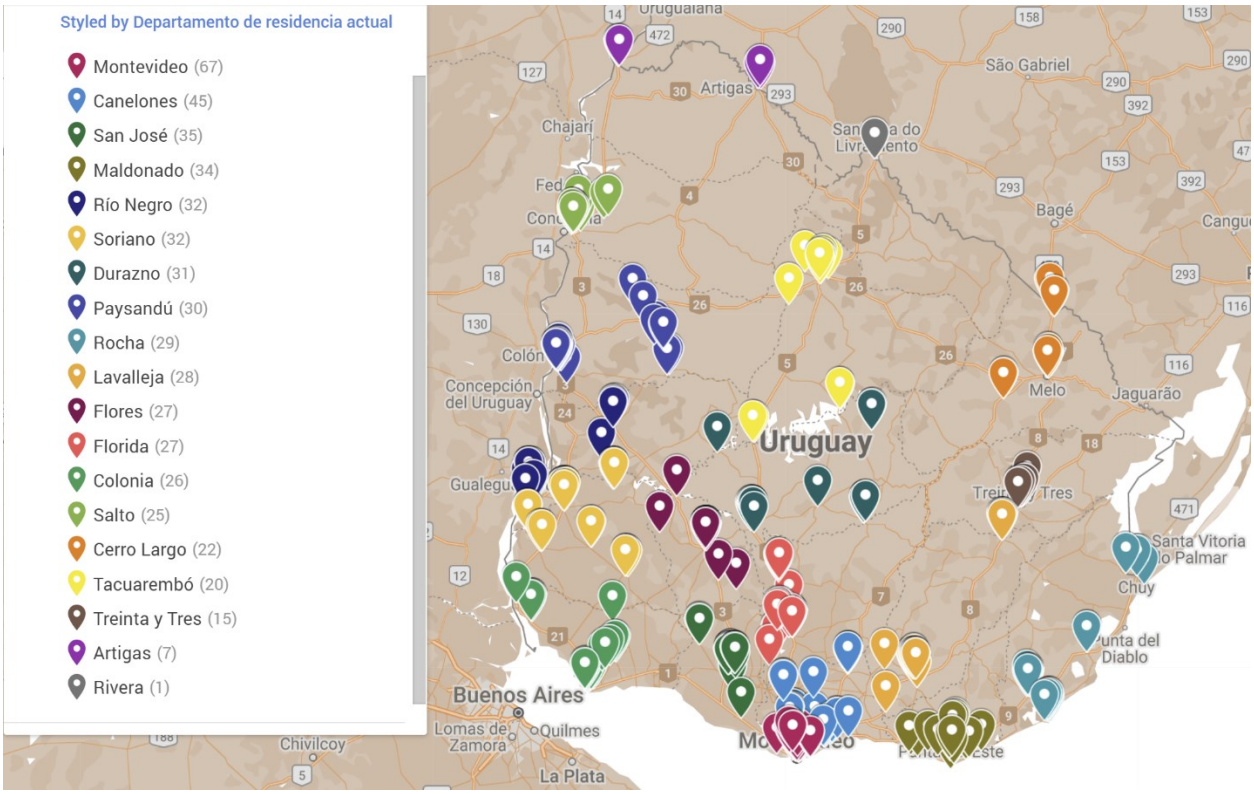


Figure 4.1: Geographic Distribution of VULC Informants using Google My Maps

Males and females of all adult ages and education levels were sought. Ultimately more females (n = 326) participated than males (n = 207). Tertiary education dominated the Montevideo informants but was otherwise varied across the other departments. Informants ranged from 18 to 91 years of age (i.e., birth years 1931-2004) with a median birth year of 1975 or 47 years old, and, similarly, an average birth year of 1974. Recruitment methods favored this middle-age group. This data collection differs from most previous work on intonation which favors younger speakers and smaller data sets.

Prior to beginning fieldwork, I created a website, vocesdeuruguay.com, to aid me in recruitment. Recruitment began first in Montevideo with the help of university faculty[43] at

[43] A special thanks to Dr. Virgina Bertolotti and Dr. Germán Canale at Udelar for helping me recruit in Montevideo.

Universidad de la República (Udelar). Recruitment flyers were posted around the School of Information and Communication and the School of Humanities. The flyer was also emailed to university faculty and forwarded to university students. This flyer led potential informants to the dedicated website to learn more and complete the prescreening survey.

Once interviews began, informants invited their friends and shared the study in their WhatsApp groups. Since not everyone who participated in Montevideo was originally from Montevideo, these transplant informants forwarded the flyer or web address to their family and friends in the interior departments. Upon arriving in several departments, local newspapers, radio stations, and television channels had me on to talk about my research, and I used that platform to recruit. These interviews were then linked or uploaded to my website, significantly improving my credibility and, thereby, my ability to recruit. After a few months in the interior, I created a Voces de Uruguay Facebook page through which I ran paid recruitment ads. This proved enormously successful and allowed me to access groups of speakers that were from different social circles. Most informants recruited through social media were middle-aged, but they were instrumental in helping me interview their parents and adult children. Some of these potential informants recruited through Facebook were in Montevideo, causing me to return to conduct additional interviews occasionally. By August 2022, nearly all informants were recruited through social media first and then by referral. In Durazno, I also had significant success recruiting individuals after religious services. In other departments, I found success by visiting schools and interviewing educators. Potential informants expressed interest in participating via a pre-screening survey created using Qualtrics. The survey link was accessed through my dedicated vocesdeuruguay.com recruitment website. Individuals were subsequently contacted through WhatsApp or phone call to schedule the interview.

4.3.2 Informant Selection and Grouping

While a study including all 533 VULC informants would have been extraordinary and the first of its kind for intonation, it was simply not feasible. This dissertation instead focuses on the departments of Montevideo and Durazno. The original 67 informants interviewed in Montevideo were filtered down to 30, 15 males and 15 females. The main criteria for selection were that the informants were indeed born and raised in Montevideo, considered themselves to be from Montevideo, and had not lived for a significant time outside Montevideo. None of the 30 informants selected lived abroad for more than five years, none lived in Argentina, and the two males that lived in Spain for 1 and 2 years did so many years ago. Attempts were made to include equal numbers per age group, though this was not always possible. The same was done in Durazno; the original 31 informants were filtered down to 20, 10 males and 10 females. Due to the availability of hospitals, two males were not born in Durazno but were raised in Durazno and considered themselves to be from Durazno. Only two Durazno informants, both females, lived abroad for 18 months; neither lived in Spain or Argentina. Given the fewer males recorded, I could not filter out as many; therefore, some males lived for several years in Montevideo. However, each of these had returned to live in Durazno at least eight years prior to the time of recording.

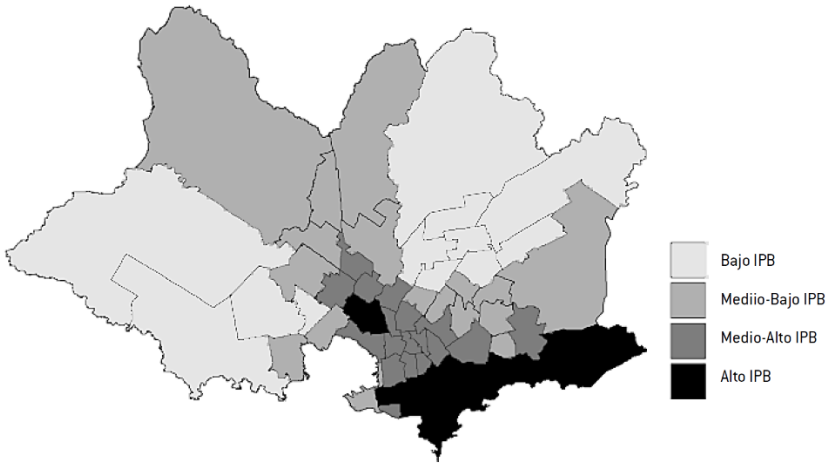
Given the push for Uruguayan students to learn additional languages, primarily English, with Portuguese and Italian occupying lesser roles, it was not plausible to filter out informants based on their level of exposure to or experience with a second language, nor was this dissertation's fieldwork designed to gauge an informant's proficiency in a second language. Instead, I decided to base eligibility on the amount of time the informants had spent abroad and where they lived. It is supposed that by living in their native communities, they necessarily

interact daily with their speech communities and, therefore, are representative of that speech community despite being able to use another language in specific contexts. Only Spanish was spoken before and during the interviews to avoid influence from other languages.

The parameters of age groups vary from study to study. This dissertation employs three age groups: 18-35, 36-59, and 60+. First, 60 is the retirement age in Uruguay, and therefore, this age group represents those who have left the workforce. This age was chosen because language tends to change after leaving the workforce (R. Cameron, 2005). Regarding the other two age groups, the break was made at age 35. This age was chosen to allow nearly equal numbers of years in each group, 17 years and 23 years, respectively. Additionally, many adults in their early thirties continue to attend college, are unmarried, and do not have children. Machado and Escobar (2023) chose ages 18-30, 31-59, and 60+ for Uruguay. Froemming (2020) chose age groups 18-32, 33-49, and 50+ for Ecuador. Ultimately, efforts were made to group informants in groups by age that roughly correlate with the three stages of adulthood: 18-35, those that are still getting established; 36-59, those that are established; and 60+, those that had left the workforce. Having included male and female speakers of all adult ages, should there be a linguistic shift at a particular age, this will be evident in the data even if the shift does not correlate perfectly with the age ranges chosen in this dissertation.

Efforts were made in Montevideo to find informants without university education, but few were obtained, and even fewer made it past the previously mentioned filters. Due to the primarily college-educated Montevideo speakers, this dissertation does not treat education as a social variable; instead, it relies on geography. Nevertheless, a breakdown by education is provided in Tables 4.1, 4.2, and 4.3 in order to provide a more complete description of the informants analyzed in this dissertation. In the hopes of obtaining a socioeconomically diverse

sampling, informants were sought from neighborhoods across the department. Aguiar (2011) provides a geographic breakdown of Montevideo by social class, provided in Figure 4.2. This was done using a multidimensional index (IPB) that considers a variety of aspects of people and homes throughout the department. These aspects included economics, employment, education, health, and possession of modern belongings. Following these criteria, four socioeconomic zones were established: low (*bajo*), middle-low (*medio-bajo*), middle-high (*medio-alto*), and high (*alto*), and neighborhoods were assigned to each zone (Aguiar, 2011, p. 56).



Zona 1
Bañados de Carrasco, Casabó, Pajas Blancas, Casavalle, Jardines del Hipódromo, La Paloma, Tomkinson, Las Acacias, Manga, Toledo Chico, Nuevo París, Paso de la Arena, Piedras Blancas, Punta de Rieles, Bella Italia, Tres Ombúes, Victoria, Villa García, Manga Rural

Zona 2
Castro, Castelano, Cerrito, Cerro, Colón Sureste, Abayubá, Conciliación, Flor de Maroñas, Ituzaingó, La teja, Lezica, Melilla, Malvín Norte, Maroñas, Parque Guaraní, Peñarol, Lavalleja, Villa Española

Zona 3
Aguada, Aires Puros, Atahualpa, Barrio Sur, Belvedere, Brazo oriental, Capurro, Bella Vista, Carrasco Norte, Ciudad Vieja, Cordón, Jacinto Vera, La Comercial, La Figurita, Larrañaga, Las Canteras, Mercado Modelo, Bolívar, Paso de las Duranas, Reducto, Sayago, Unión, Villa Muñoz, Retiro

Zona 4
Buceo, Carrasco, Centro, La Blanqueada, Malvín, Palermo, Parque Rodó, Pocitos, Parque Batlle, Villa Dolores, Prado, Nueva Savona, Punta Carretas, Punta Gorda
Tres Cruces

Fuente: Elaboración propia en base a datos de ENHA 2006, INE

Figure 4.2: Socioeconomic Distribution of Montevideo (Aguiar, 2011, p. 56)

Most of the Montevideo informants reside in Zone 4 (n = 16), followed by Zone 3 (n = 7), Zone 2 (n = 6), and Zone 1 (n = 1). However, the neighborhood of Carrasco in Zone 4 is the most affluent and exclusive in the department. Carrasco is a garden neighborhood that

historically served as a summer destination where the elite of Montevideo had their second residence. Presently, this neighborhood includes lavish homes and the most distinguished private schools in the country. Despite my efforts to recruit informants raised in Carrasco, all three of the informants I recorded between the Carrasco and Punta Gorda neighborhoods are retired medical professionals in their late seventies who were raised in other Zone 4 neighborhoods and who moved to Carrasco/Punta Gorda after getting established in their careers. When asking informants for referrals living in Carrasco, it became apparent that there is a clear societal disconnect between the upper classes and the exceptionally wealthy. Figure 4.3 demonstrates the geographic distribution of the selected Montevideo informants, and Table 4.1 provides detailed demographic information for each Montevideo informant.

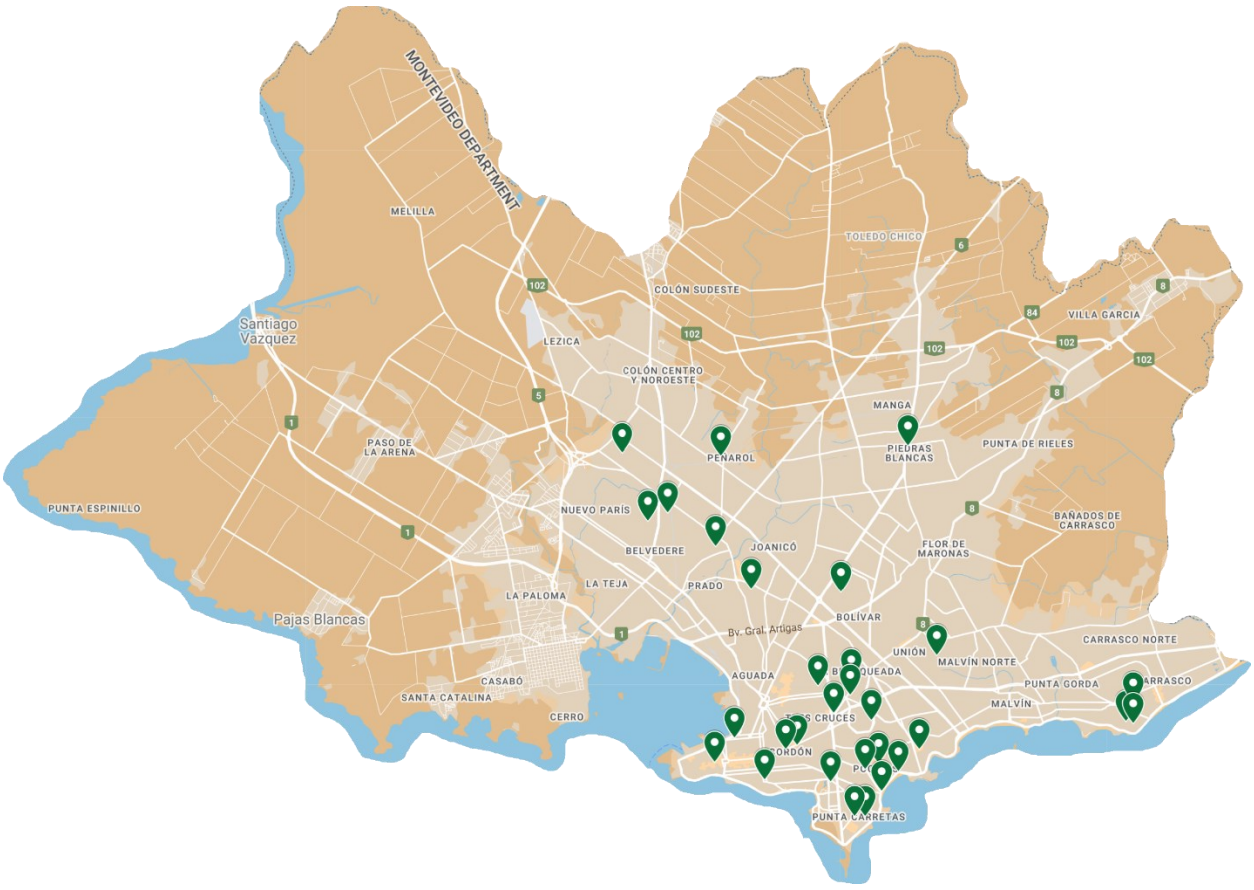


Figure 4.3: Geographic Distribution of Montevideo Informants via Google My Maps

NAME	BIRTH YEAR	AGE GROUP	GENDER	EDUCATION LEVEL	EDUCATION SIMPLIFIED	JOB TITLE	DEPARTMENT	CITY	NEIGHBORHOOD
MVF20	2002	18-35	Female	Tertiary Pre-Bachelors	T	Student	Montevideo	Montevideo	Piedras Blancas
MVF21	2001	18-35	Female	Tertiary Pre-Bachelors	T	Teacher	Montevideo	Montevideo	Pocitos
MVF26	1995	18-35	Female	Tertiary Pre-Bachelors	T	Freight forwarder	Montevideo	Montevideo	Punta Carretas
MVF34	1987	18-35	Female	Tertiary Pre-Bachelors	T	Administrative	Montevideo	Montevideo	Pérez Castellano
MVF36	1986	36-59	Female	Masters	T	Teacher	Montevideo	Montevideo	Cordón
MVF49	1973	36-59	Female	Bachelors	T	Librarian	Montevideo	Montevideo	Peñarol
MVF50	1972	36-59	Female	High School	S	Medical Records Assistant	Montevideo	Montevideo	Villa Teresa
MVF55	1966	36-59	Female	Tertiary Pre-Bachelors	T	Teacher	Montevideo	Montevideo	La Blanqueada
MVF58-2	1964	36-59	Female	Tertiary Pre-Bachelors	T	Public official	Montevideo	Montevideo	La Comercial
MVF59	1962	36-59	Female	Bachelors	T	Teacher	Montevideo	Montevideo	Atahualpa
MVF63	1959	60+	Female	Doctorate	T	Associate Professor	Montevideo	Montevideo	Tres Cruces / Cordón
MVF64	1957	60+	Female	Bachelors	T	Librarian	Montevideo	Montevideo	La Blanqueada
MVF76	1946	60+	Female	Doctorate	T	Oncologist	Montevideo	Montevideo	Punta Gorda / Carrasco
MVF77	1944	60+	Female	Bachelors	T	Notary	Montevideo	Montevideo	Pocitos
MVF77-2	1945	60+	Female	Doctorate	T	Psychiatrist	Montevideo	Montevideo	Carrasco
MVM21	2000	18-35	Male	Tertiary Pre-Bachelors	T	Student	Montevideo	Montevideo	Buceo
MVM23	1998	18-35	Male	High School	S	Student	Montevideo	Montevideo	Barrio Sur
MVM26-2	1995	18-35	Male	High School	S	Advertising Project Manager	Montevideo	Montevideo	Villa Teresa
MVM28	1994	18-35	Male	Bachelors	T	Business Analyst	Montevideo	Montevideo	Pocitos
MVM31	1990	18-35	Male	Bachelors	T	Company Administrator	Montevideo	Montevideo	Pocitos
MVM36	1985	36-59	Male	Bachelors	T	Photographer	Montevideo	Montevideo	Unión
MVM37	1984	36-59	Male	Doctorate	T	Teacher	Montevideo	Montevideo	Ciudad Vieja
MVM42	1979	36-59	Male	Tertiary Pre-Bachelors	T	Administrator and Journalist	Montevideo	Montevideo	Conciliación
MVM42-2	1980	36-59	Male	High School	S	Managing Director	Montevideo	Montevideo	Prado
MVM44	1977	36-59	Male	Bachelors	T	IT Manager	Montevideo	Montevideo	Centro
MVM49	1973	36-59	Male	Middle School	P/M	Audiovisual post-producer	Montevideo	Montevideo	Villa Dolores
MVM50	1971	36-59	Male	Bachelors	T	Real estate	Montevideo	Montevideo	Parque Rodó
MVM68	1953	60+	Male	High School	S	Public employee	Montevideo	Montevideo	Cordón
MVM69	1952	60+	Male	High School	S	Employee	Montevideo	Montevideo	Punta Carretas
MVM78	1944	60+	Male	Doctorate	T	Anesthesiologist	Montevideo	Montevideo	Punta Gorda / Carrasco

Table 4.1: Demographic Information of Montevideo Informants

Durazno, to my knowledge, has not been zoned by socioeconomic status like Montevideo. However, to ensure a diverse sampling, speakers in the department's capital city, as well as other smaller cities and towns, were recorded. Rural speakers in Durazno were sought out, but few were obtained. Throughout the country, rural speakers were more difficult to reach and less interested in participating, and in some cases, their participation in the DCT lacked the naturalness required for comparability. Four of the ten men in Durazno work or worked in a rural industry and it is likewise expected that the informants living outside the capital city of Durazno have increased informal contact with rural community members. Figure 4.4 demonstrates the geographic distribution of the selected Durazno informants, and Table 4.2 provides detailed information for each Durazno informant.

Figure 4.4: Geographic Distribution of Durazno Informants via Google My Maps

NAME	BIRTH YEAR	AGE GROUP	GENDER	EDUCATION LEVEL	EDUCATION SIMPLIFIED	JOB	DEPARTMENT	CITY	NEIGHBORHOOD
DZF20	2002	18-35	Female	Tertiary Pre-Bachelors	T	Student	Durazno	Durazno	Barrio La Lanera
DZF34	1988	18-35	Female	High School	S	Housekeeper	Durazno	Durazno	Barrio Tabaré
DZF34-2	1988	18-35	Female	High School	S	Housekeeper	Durazno	Durazno	Barrio Varona
DZF35	1986	18-35	Female	High School	S	Manager	Durazno	Durazno	Barrio Centro
DZF41-2	1980	36-59	Female	Tertiary Pre-Bachelors	T	Teacher	Durazno	Durazno	Barrio Centro
DZF55	1966	36-59	Female	Middle School	P/M	Disability recipient	Durazno	Sarandí del Yi	Barrio Mevir
DZF56	1966	36-59	Female	Middle School	P/M	Housekeeper	Durazno	Sarandí del Yi	Barrio Malbajar
DZF60	1962	60+	Female	High School	S	Public Health Official	Durazno	Sarandí del Yi	Barrio Banco Hipotecario
DZF66	1956	60+	Female	Tertiary Pre-Bachelors	T	Teacher	Durazno	Durazno	Plaza de Deportes
DZF67	1955	60+	Female	Tertiary Pre-Bachelors	T	Housekeeper	Durazno	Durazno	Barrio Tabaré
DZM20	2001	18-35	Male	High School	S	Student	Durazno	Durazno	Barrio Corralón
DZM25	1997	18-35	Male	Middle School	P/M	City employee	Durazno	Durazno	Barrio Varona
DZM41	1981	36-59	Male	Primary School	P/M	Customer Service Representative	Durazno	Durazno	Barrio Bertonasco
DZM43	1978	36-59	Male	Bachelors	T	Teacher	Durazno	Durazno	Parque de la Hispanidad
DZM45	1977	36-59	Male	High School	S	Construction Small Business Owner	Durazno	Carmen	Barrio Centro
DZM48	1973	36-59	Male	Tertiary Pre-Bachelors	T	Agricultural Technician	Durazno	La Paloma	Barrio Centro
DZM60	1961	60+	Male	Primary School	P/M	City official	Durazno	Sarandí del Yi	Barrio Malbajar
DZM62	1959	60+	Male	Tertiary Pre-Bachelors	T	Agricultural Technician	Durazno	La Paloma	Barrio Centro
DZM68	1953	60+	Male	Primary School	P/M	Rural worker	Durazno	Durazno	Barrio Tabaré
DZM70	1952	60+	Male	Primary School	P/M	Construction / farm worker	Durazno	Sarandí del Yi	Barrio Malbajar

Table 4.2: Demographic Information of Durazno Informants

In total, this dissertation counts on 50 informants, 30 from Montevideo and 20 from Durazno, consisting of 25 males and 25 females, 15 from Age Group 1 (G1), 20 from Age Group 2 (G2), and 15 from Age Group 3 (G3) of differing levels of education and occupational

backgrounds. Informant pseudonyms, as pictured in Tables 4.1 and 4.2, were generated using information from the informant's linguistic profile: MV = Montevideo and DZ = Durazno, M = male and F = female, the number represents the informant's age at the time of recording, and in cases where after the age there is a "-2", this -2 refers to the second VULC informant with the otherwise same name. Therefore, informant MVF77-2 is the second 77-year-old female from Montevideo recorded. Table 4.3 provides a simplified count of the informant distribution across the parameters of department, gender, age group, and education level[44]. All informants were selected before their speech was analyzed acoustically for intonation based on the previously presented criteria.

		Age Group												
		18-35 > G1				**36-59 > G2**				**60+ > G3**				
	Education Level	**P/M**	**S**	**T**	**Total**	**P/M**	**S**	**T**	**Total**	**P/M**	**S**	**T**	**Total**	**Grand Totals**
Montevideo	**Female**	0/0	0	4	**4**	0/0	1	5	**6**	0/0	0	5	**5**	**15F**
	Male	0/0	2	3	**5**	0/1	1	5	**7**	0/0	2	1	**3**	**15M**
	Total	0	2	7	**9**	1	2	10	**13**	0/0	2	6	**8**	**30**
Durazno	**Female**	0/0	3	1	**4**	0/2	0	1	**3**	0/0	1	2	**3**	**10F**
	Male	0/1	1	0	**2**	1/0	1	2	**4**	3/0	0	1	**4**	**10M**
	Total	1	4	1	**6**	3	1	3	**7**	3	1	3	**7**	**20**
	Grand Total	1	6	8	**15G1**	4	3	13	**20G2**	3	3	9	**15G3**	**50**

Table 4.3: Informant Count by Department, Gender, Age Group, and Education Level

4.3.3 Material and Procedure

Using an extensive Qualtrics survey to guide the interview, each informant read the consent form (See Appendix A) and accepted to participate by checking two boxes on the

[44] Education level is only provided for context. Education is not considered in this dissertation as a social variable due to the unequal distribution of education levels across the informants. Despite middle school (*ciclo básico*) forming part of secondary education, it is grouped here with primary school. This leaves secondary education to refer to High School graduates. Tertiary Education groups teachers, who have a degree that is not considered a bachelors (*licenciatura*), with those who have specialized professional post-secondary training, and those individuals with university degrees.

consent form, without which the survey would conclude, and no further information could be gathered. This method was used in place of a signature to protect the identity of the informants. The consent form and all surveys and tasks were presented to the informant in large text on a 16-inch laptop screen. All recordings were made using a Sony ICD-UX570 and saved on a removable 64GB MicroSD. All interviews were recorded as .wav files at 44.1kHz. Due to initial conflicts with lapel microphones due to expressive body language, all recordings were made using the recorder's built-in stereo microphones. The recorder most often rested in my outstretched hand as the sole interviewer for all VULC informants. It was also frequent for the recorder to rest on the table in front of the informant, though this was most frequent during the sociolinguistic interview task due to the extended length of those recordings. In very rare cases where the informant was sitting further away, they would hold the recorder and hand it off to me to pause and stop recording. Interviews were conducted between March and December 2022. Due to the COVID-19 pandemic, masks were required until April 2022 while inside the Universidad de la República in Montevideo. Informants agreed to remove their masks to be recorded, whereas I, as the interviewer, retained my mask and handled all the equipment. Mask mandates were lifted before recording began in the interior. To ensure quality recordings, quiet spaces were sought. Due to expressive body language, informants were asked to remove noisy jackets and other accessories, like rings, earrings, and bracelets, which they did without issue or hesitation. Because informants were not connected to any recording equipment, they were free to be physically expressive, and they did not acknowledge the recorder in any negative way.

4.3.4 Elicitation Procedure

Most informants completed the prescreening survey independently and were subsequently contacted through WhatsApp or phone call to schedule the interview. Informants I

recruited face-to-face, who agreed to be interviewed, completed the prescreening survey to ensure they met the recruitment criteria and to preserve their contact information in the same secure location (n = 896). In Montevideo, nearly all the VULC informants agreed to travel at their own expense to the School of Information and Communication of the Universidad de la República located at San Salvador 1944, Montevideo. There, I reserved a small sound-treated recording studio where the interviews were conducted. The remaining interviews in Montevideo were done in the informants' homes or empty offices at the informant's place of business. Measures were taken to reduce background noise, and recording quality was verified before beginning the interview. Throughout the interior departments, including Durazno, nearly all recordings took place in the informants' homes. In cases where their homes were not an adequate recording environment, I sought out recording space among local churches, schools, cultural centers, and libraries. Particularly in the city of Durazno, a centralized church building was used for many informants. Again, measures were taken to reduce background noise and avoid locations that echo. Controlling for conflicting noise was more challenging in the interior because the recording environments varied greatly, but adequate locations were found. In the event a substantial noise interrupted the recording of the DCT, the task analyzed in this dissertation, the informant was asked to repeat the interrupted sentence.

I conducted all 533 VULC interviews to ensure consistency across the data in terms of the operation of the recorder, interview structure, and interviewer influence[45]. Therefore, as

[45] I am not Uruguayan, nor am I a native Spanish speaker. I share a linguistic and cultural connection to Uruguay through my spouse and her family dating back to 2010. Consequently, I had spent time in Uruguay prior to conducting this fieldwork. Thanks to my Fulbright funding, I spent nine uninterrupted months in Uruguay conducting interviews, further immersing myself in the language and culture of each department. During the interviews, I only spoke Spanish and used the accepted *voseo* or *tuteo* forms based on informant preference. While recruiting a native Uruguayan Spanish speaker would have mitigated any influence I had, it would have had its own influence. Using an interviewer from Montevideo in the interior could have affected speech production as interior informants could feel judged by them

outlined in the consent form, informants understood the nature of their involvement, that they could end their participation at any time, and were provided with contact information for the study team should they have any questions following their participation. The informants were aware that the study sought to investigate patterns in Uruguayan speech but were not aware that the present focus was intonation. In fact, a series of three tasks was used to make this purpose less obvious and inform future research on other topics.

As explained in Section 4.3.1, each interview began with an "entrance survey," an extensive demographic survey that asked informants about themselves and their parents, any time abroad, any time they lived in other departments, departments they have family in, had visited, and frequent. These questions were asked to build a linguistic profile for each informant and to understand the degree of connectivity between departments. Following the entrance survey, the recorded interview began with a series of 8-10 questions, depending on and informed by their responses to the entrance survey. These questions were designed with two main purposes: first, to get the informant to speak naturally and become accustomed to being recorded, and second, to solicit spontaneous speech about topics relating to their childhood and city. These topics allowed the informants to provide an oral history of their communities and a record of their lived experiences. Such topics built rapport between me and the informants and made the interviewing of 533 people very enjoyable.

The next recorded speaking task was the Discourse Completion Task (DCT) developed for the *Interactive Atlas of Spanish Intonation* (Prieto & Roseano, 2009). This task has been used over and over again (see Prieto & Roseano, 2010) in most Spanish-speaking countries. It has

politically, culturally, and linguistically. Being from the outside allowed informants to express their opinions on society and language freely without judgment, which helped mitigate the influence I may have had. That said, I am not rural, and in the future, recruiting a rural interviewer for rural participants could prove beneficial as could designing tasks where speakers interact among themselves.

been evaluated and determined effective for the study of intonation (Vanrell et al., 2018). The version of the DCT employed in this dissertation was adapted from the version used in Argentina, with minor changes in vocabulary, none of which affected the BFD or NDF utterances. This nearly identical task was used to essentially replicate the study done in Buenos Aries by Gabriel et al. (2010). By eliciting identical sentences[46] as those used by Gabriel et al. (2010), differing results cannot be attributed to task type but instead indicate dialectal variation. This DCT covered a range of utterance types, but only BFDs and NFDs are examined in this dissertation. All sentences recorded were grouped by utterance type such that all declaratives were grouped and recorded together, followed by absolute interrogatives, vocatives, reiterative interrogatives, imperatives, and partial interrogatives. I recognize that this made the purpose of the task more visible to the informants. This was a sacrifice made to facilitate file labeling and acoustic analysis. However, unlike highly structured studies where the only difference from one sentence to the next is the intonation (Machado & Escobar, 2023), the DCT phrases recorded were completely different from one utterance type to the next. An unexpected side effect of this grouping was that a few informants, who were perhaps less invested, began to overgeneralize absolute interrogative intonation patterns on the subsequent interrogative groups. This unfortunate side effect does not influence the results of this dissertation because interrogatives are excluded here. Nevertheless, this situation suggests that mixing utterance types would be best, or at the very least, if grouped, absolute interrogatives should go last. This situation also serves as an investment indicator, such that informants who overgeneralized the absolute interrogative intonation pattern were not paying full attention to the prompts at that point in the

[46] I discovered after completing my VULC fieldwork, that Gabriel et al. (2010) had modified one of the NDF utterances. Therefore, what will later be referred to NFD1 *¡Señora, no quiero limones, quiero naranjas!*, follows the materials provided for the *Atlas Interactivo de la entonación del español* (Prieto & Roseano, 2009) for Buenos Aires, rather than that of Gabriel et al. (2010) *¡No, naranjas!*.

study and should not be considered reliable informants. Following the DCT, informants read the fable *El viento norte y el sol* (The North Wind and the Sun).

These three speaking tasks represent different degrees of structure. In the spontaneous response task, the only structure was the topic. In the DCT, speakers were provided with a situation and an accompanying pragmatically relevant target phrase. They were asked to say the phrases as a reaction to the situation, so while this task is highly structured, informants essentially become actors, playing themselves, that act out the particular line. Ideally, these phrases were said to sound spontaneous even though they were scripted. Lastly, the reading task is the most structured task; some informants read it more story-like than others. Following these three speaking tasks, the informants completed an exit survey, which gathered linguistic impressions. These were purposefully solicited after the recordings were made so that these questions did not prime them or influence their speech choices. These final questions asked how people speak throughout Uruguay and if they believed they speak differently from *porteños* in Buenos Aires, and what they perceive those differences to be. Lastly, depending on their exit survey responses, there was an optional short fourth recording task where informants could try to imitate *porteño* speech and *cantito* speech. This was done at the end so as not to influence how they completed the other speaking tasks.

The interview and recording ended once the exit survey and the optional recording had been completed[47]. Since the recorder was not running during the entirety of the interview session, each interview rendered approximately 45 minutes of audio across all tasks. Since only the BFD and NFD utterances of the DCT are of interest to this dissertation, the recording time for these tasks was approximately 3 minutes per speaker.

[47] Depending on my availability and that of the informant, either prior to starting or after the interview officially ended, our conversations would often continue off the record.

To complete the DCT, I read the prompts[48], which were the situations that provided the required context for the provided target phrases that the informant would subsequently read. I chose to read each situation for the recorder to ensure that the informant did, in fact, hear it and to ensure that the informant did not tag the provided target phrase on the end of the context paragraph but instead read it intentionally based on the context provided. In Table 4.4, I provide the BFD situations and target phrases in Spanish and English; in Table 4.5, I provide the same for NFDs. Notice that there are very few BFD utterances. This is ultimately a result of using the "reduced list" of situations provided in the DCT source material for Buenos Aires (Prieto & Roseano, 2009). Additionally, this dissertation did not analyze the BFD3 target phrase, *lunes, martes, miércoles …*, being the days of the week. As a list of individual words, each word constitutes its own intermediate phrase (ip). Each ip contains just one pitch accent and ends with a high ip boundary tone (H-) to signal that the speaker has not finished saying the list. When an H- follows a pitch accent, it is often difficult to accurately[49] determine the F0 peak alignment relative to the stressed syllable. Therefore, an individual analysis of BFD3 was not carried out since it would not inform the research questions. Given the limited number of BFD utterances recorded and their different lengths and syntax, this dissertation also looks at the non-focalized PWs occurring prior to the focalized PW in the NFD utterances to inform the research questions.

Utterance name **Justification**	**Situation (Original Spanish)**	**Target Phrase (Original Spanish)**	**Situation (English translation)**	**Target Phrase (English translation)**
BFD1 1-word sentence	Te preguntaron si preferís peras o mandarinas. Vos	**Mandarinas.**	They ask you if you prefer pears or mandarin oranges.	**Mandarin oranges**

[48] The only exception was when I lost my voice, and the informant, not included in this dissertation, read the situations as well as the provided target phrases.
[49] Should F0 not fall after the stressed syllable and instead plateau or continue to rise because of the H- boundary tone, it is unclear where the F0 peak would occur to assign it the correct pitch accent.

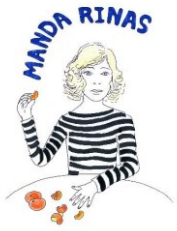
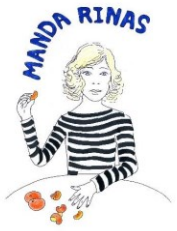
	respondés que mandarinas.		You respond with mandarin oranges.	
BFD2 Multiple-word sentence	 Mirá el dibujo y decime: ¿qué está haciendo María?	**María está comiendo mandarinas.**	 Look at the picture and tell me: What is María doing?	**María is eating mandarin oranges.**
BFD4 Peripheral elements	Imaginate que acabás de conocer a alguien de San Juan y resulta que allá viviste muchos años. ¿Cómo se lo dirías?	**Yo viví muchos años, en San Juan.**[50]	Imagine that you just met someone from San Juan and it turns out that you lived there for many years. How would you tell them that?	**I lived for many years, in San Juan.**

Table 4.4: DCT Situations and Target Phrases for BFDs adapted and translated from Prieto and Roseano (2009).

Utterance name **Pragmatic interpretation**	**Situation (Original Spanish)**	**Target Phrase (Original Spanish)**	**Situation (English translation)**	**Target Phrase (English translation)**
NFD1 Contrastive Focus	Entrás en una frutería donde hay una señora que es un poco sorda. No te oyó bien, y, después de decirle que querías un par de naranjas, ella te	**¡Señora, no quiero limones, quiero naranjas!**	You enter a fruit store where there is a woman that is a little deaf. She didn't hear you well, and, after telling her you want two oranges,	**Ma'am, I don't want lemons, I want oranges!**

[50] Due to continued objection by the informants regarding the comma, it was eventually removed. However, most of the Montevideo informants saw the comma. Pausing there was unnatural, and many informants did not respect the comma. Once removed, informants did not pause. This was not the only protest; others contested the placement of other punctuation marks, and these were not changed due to a lack of consensus, even among teachers. Instead, each informant was instructed to interpret the sentence as they felt it should be said naturally in response to the situation.

	pregunta si son limones, lo que querés. Decile que no, que lo que querés son naranjas.		she asks you if what you want is lemons. Tell her no, that what you want are oranges.	
NFD2 Exclamative Declarative with Emphasis	Entrás a una panadería y olés unas rebuenas medialunas. Decíselo al panadero.	**¡Qué rico olor a medialunas!**	You enter a bakery and smell some delicious croissants. Say this to the baker.	**What a delicious croissant smell!**
NFD3 Categorical declarative with corrective focus and emphasis	Estás hablando con una amiga sobre unos amigos que se quieren comprar un apartamento y ustedes no están seguro/as de a dónde se van a vivir. Vos sabés que ellos se van a vivir a San Juan. Tu amiga te dice que no, que seguro a San Rafael. Decile, convencido/a, que no, que ellos se van a vivir a San Juan.	**¡No, se van a vivir a San Juan![51]**	You are talking with a friend about some friends that want to buy an apartment and you disagree on where you think they are going to live. You know that they are going to live in San Juan. Your friend tells you no, that they are surely going to live in San Rafael. Tell her, convinced, that that is incorrect, that they are going to live in San Juan.	No, they are going to live in San Juan!
NFD4 Doubtful declarative	Un amigo te pide que compres un regalo para alguien que apenas conocés y tenés miedo de no elegir algo adecuado. Decile que puede ser que no le guste.	**Es posible que no le guste el regalo.**	A friend asks you to buy a gift for someone that you barely know, and you are afraid of not picking something adequate. Tell him that it is possible that she won't like it.	**It's possible that she won't like the gift.**

[51] There is no city of San Juan in Uruguay, but this was preserved for comparability.

NFD5 Statement of the obvious	Estás con una amiga y le decís que María, una amiga de ustedes, se va a casar. Ella te pregunta con quién. A vos te sorprende mucho que ella no lo sepa, porque todo el mundo sabe que con su novio, Manuel. Decile que claro que es con Manuel.	**¿Con quién va a ser? ¡Con Manuel!**	You are with a friend and you tell her that María, a mutual friend, is going to get married. She asks you who to. It surprises you that she doesn't know, because everyone knows she is marrying her boyfriend, Manuel. Tell her that of course to Manuel.	**To whom do you think? To Manuel!**
NFD6 Emphatic Declarative	Te invitaron a un asado que es lo mejor que habías comido en tu vida, te encantó. ¿Qué decís?	**¡Está buenísimo!**	They invited you to a barbecue that was the best you had ever eaten in your life, you loved it. What do you say?	**It's great!**

Table 4.5: DCT Situations and Target Phrases for NFDs adapted and translated from Prieto and Roseano (2009).

This dissertation analyses 9 utterances, 3 BFDs, and 6 NFDs from 50 informants, totaling 450 utterances, 150 BFDs, and 300 NFDs. Having provided the translations in Tables 4.4 and 4.5 above, I will no longer translate these sentences moving forward. Please refer to these tables as needed. To make this analysis more accessible to readers less familiar with the Spanish language, the prosodic hierarchy and syntactic structure of each target phrase is in Appendix B.

4.4. Analysis

4.4.1 Sample Selection

Collecting audio recordings of select utterances via a DCT ensures that the phrases spoken are produced with the intended meaning and with the desired broad or narrow focus. Another benefit of the DCT is that all utterances analyzed across speakers are identical, allowing for a clean comparative analysis. There are also limitations to this methodology that will be

discussed in Chapter 7. In cases where an informant provided speech samples that varied from the intended interpretation or that were not spoken naturally, these were marked as NA in my analysis. Since each speaker repeated each target phrase three times, the most natural-sounding version was chosen for analysis[52]. The cleanest-looking[53] F0 contour was analyzed if all versions were equally good. I did not document which of the three versions was chosen, but anecdotally I can confidently say that for most informants, the first version was the most natural. This initial reaction to the situation would often ring truest, with subsequent recordings showing less emotion. However, versions two and three were sometimes analyzed instead of version one for a few reasons: 1) The informant struggled to act out the target phrases; therefore, the first reading was unnatural. Having three tries often helped them master the utterance; thus, in these cases, often the later versions were better than the first. This was especially common in informants with lower levels of reading proficiency. 2) The informant read versions one and two as if part of a list, signaled by an unnatural high boundary tone H% communicating that the speaker was not finished talking. In such cases, the third version was analyzed since it was said more naturally because it was the last element in the list and thus ended with a low boundary tone, as expected. However, these were marked NA if all three were unnatural or misinterpreted. The number of NAs was significantly higher in Durazno than in Montevideo. This type of acting task was a new experience for the informants, and some struggled, especially those with lower reading

[52] While some informants did gesture when they were unconvinced by their own production of the target sentence, for the sake of time, the three versions were not played back for them to choose the most natural sounding version. Instead, I made this determination by eliminating versions that were produced with unexpected hesitation due to reading effects, unexpected high boundary tones due to listing effects, and reduced overall commitment and engagement with the situation. Having conducted 533 interviews, it was apparent when a speaker deviated from the intended interpretation.

[53] F0 contours can be jagged and untidy. At times, unexpected and disjointed jumps in the F0 track occur in the Praat visualization despite there being no audible drastic pitch increase or decrease. If all versions of the target phrase were otherwise identical, the smoothest and least jumpy F0 track was analyzed to ensure a more accurate analysis.

proficiency levels. I did not model the target phrase for the informants to avoid influencing the intonation informants may ascribe to the utterance. Consequently, some informants initially misunderstood the instructions or struggled to say the phrase naturally. In such cases I would often recommend they attempt to memorize the short target phrase and then say it without looking at the laptop screen. This proved helpful for those informants with lower levels of reading proficiency who would otherwise read the phrase slowly sounding it out as they went along, leading to an unnatural sounding utterance.

All 50 informants were selected based on their linguistic profiles prior to acoustic analysis, and their BFD and NFD audio tracks were analyzed using Praat (Boersma & Weenink, 2021). Of the 450 target phrases analyzed, 25 target phrases were analyzed as NA, 4 from Montevideo, and 21 from Durazno. This increased number of NAs from Durazno is significant. Durazno speakers have less exposure to these types of tasks, and the population sampled is more socially diverse in terms of education and occupation. While nearly all Montevideo informants are university-educated and, therefore, had no trouble performing the DCT task, several Durazno informants struggled, especially males from Age Groups 2 and 3.

4.4.2 Acoustic and Phonological Analyses

4.4.2.1 Coding of Pitch Accents

In the coding of pitch accents, as covered in Chapter 3, F0 is measured for every content word (Hualde & Prieto, 2015, p. 358) and assigned one of the monotonal, bitonal, or tritonal pitch accents based on F0's behavior. Examples of each of these pitch accents is provided in the following subsections. A difference of 7 Hz was required to constitute a peak. This threshold has been found to be perceptually significant (Klatt, 1973). However, most peaks are substantially

higher than a difference of 7 Hz. As F0 peaks downstep from left to right, the salience of each peak decreases.

Due to Praat software limitations regarding visualizations, all pitch track figures below exclude the waveform. Nevertheless, each image contains the entire utterance and excludes prior and final silence, such that any breaks in the F0 track represent an utterance-internal pause or voiceless or devoiced sounds.

4.4.2.1.1 Monotonals

Recall from Chapter 3 that High H* and Low L* monotonal pitch accents occur when the F0 track, corresponding to a stressed syllable, is flat (i.e., without a rise or fall greater than 7 Hz). H* pitch accents can be found throughout the utterance, whereas L* pitch accents are only found in nuclear position. Low and flat F0 tracks in prenuclear position are labeled as deaccented, meaning the speaker omitted a rise where otherwise a peak was warranted. L* nuclear pitch accents are common in Spanish declaratives. As F0 downsteps, the nuclear pitch accent is often within the bottom third of the speaker's pitch range and does not rise to the designated 7 Hz threshold. H* in nuclear position, on the other hand, in declaratives is uncommon. Any height attained in nuclear position typically is accompanied by a rise throughout the syllable and is therefore coded as a bitonal pitch accent. Examples of H* and L* are provided in Figures 4.5 and 4.6, respectively.

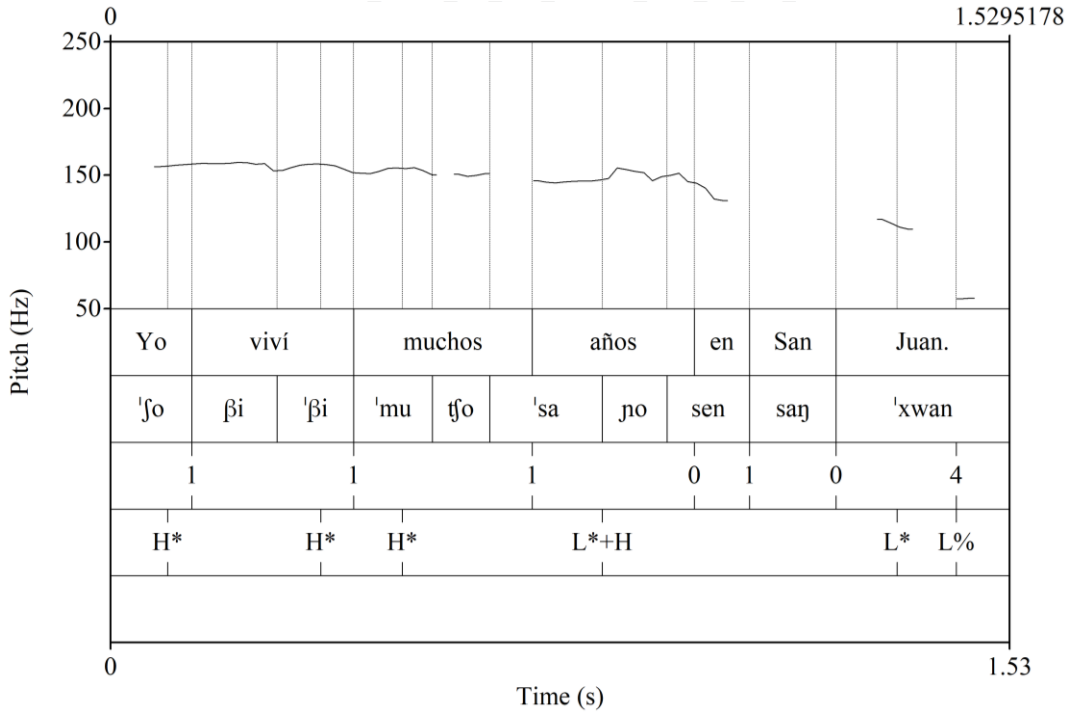


Figure 4.5: Sample Pitch Track of H* from Data. MVM50, producing BFD4, employs a continuous H* monotonal pitch accent with a pitch difference of only 3-5 Hz throughout the first three content words *Yo viví muchos.*

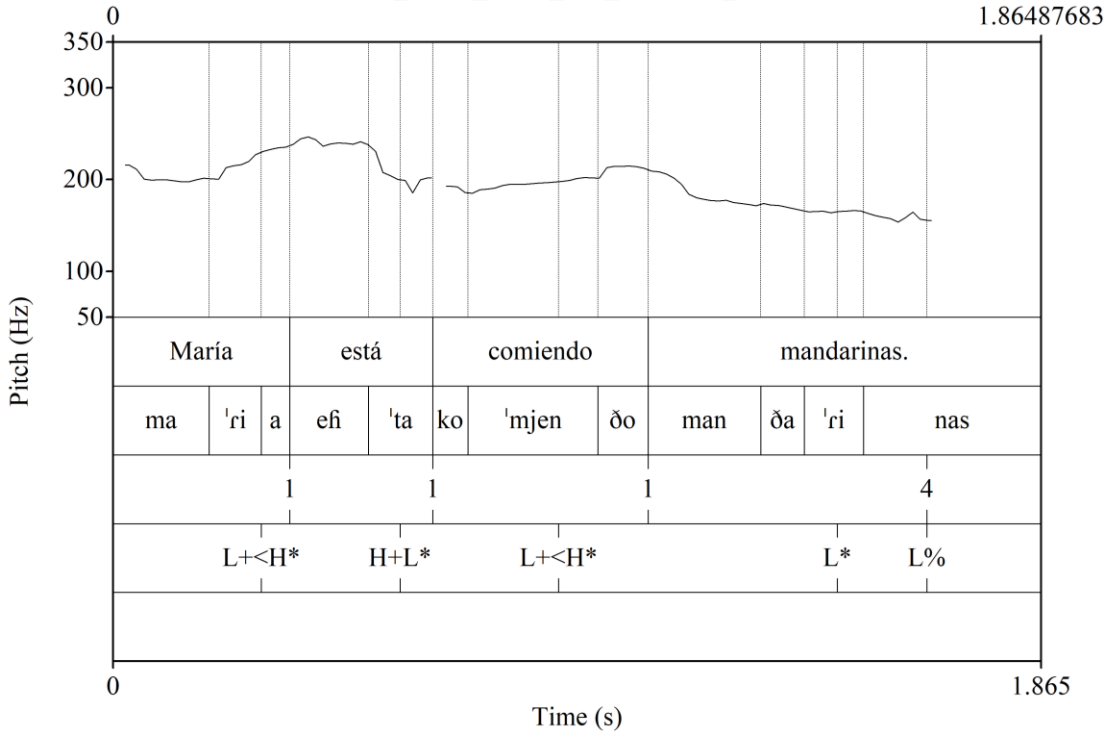


Figure 4.6: Sample Pitch Track of L* from Data. DZF34-2, producing BFD2, employs the common L* nuclear pitch accent on *mandarinas*, a F0 difference of 1 Hz.

4.4.2.1.2 Bitonals

As presented in Chapter 3, bitonal pitch accents are used to demonstrate a rise or fall in the F0 track corresponding to a stressed syllable. Unlike from the monotonal pitch accents presented in the previous section, bitonal pitch accents require an F0 change of greater than 7 Hz. In the present data, bitonal pitch accents are more common than monotonal pitch accents, especially in prenuclear position.

Taking each of these pitch accents in the order they are presented in Chapter 3, I begin with pitch accent H+L*. H+L* denotes an F0 peak reached in the pre-tonic syllable and constitutes a significant fall during the stressed syllable. While this is a frequent nuclear pitch accent in BAS (Colantoni & Gurlekian, 2004; Gabriel et al., 2010), in the present data, it occurs infrequently in nuclear position, see Figure 4.7. More commonly in the present data, H+L* is used with the auxiliary verb *estar* before a present participle, see Figure 4.8. Other researchers may code this auxiliary verb in BFD2 as deaccented (DA) due to its lack of rise during the stressed syllable. I have chosen to code it in most cases as H+L* because there is stress clash with the previous PW *María.* This stress clash may not seem apparent since there are, in fact, two unstressed syllables between them. However, in this sentence, the final *a* of *María* reduces and merges phonetically with the onset vowel *e* of *está*. This reduction and merger, plus the common aspiration or elision of preconsonantal *s,* becomes [ma. ɾíeh.tá]. This clash makes marking it as DA less clear. Additional utterances could make this phono-syntactic relationship clearer. That said, the auxiliary verb rarely has a rising pitch accent; doing so indicates a more careful or emphatic reading.

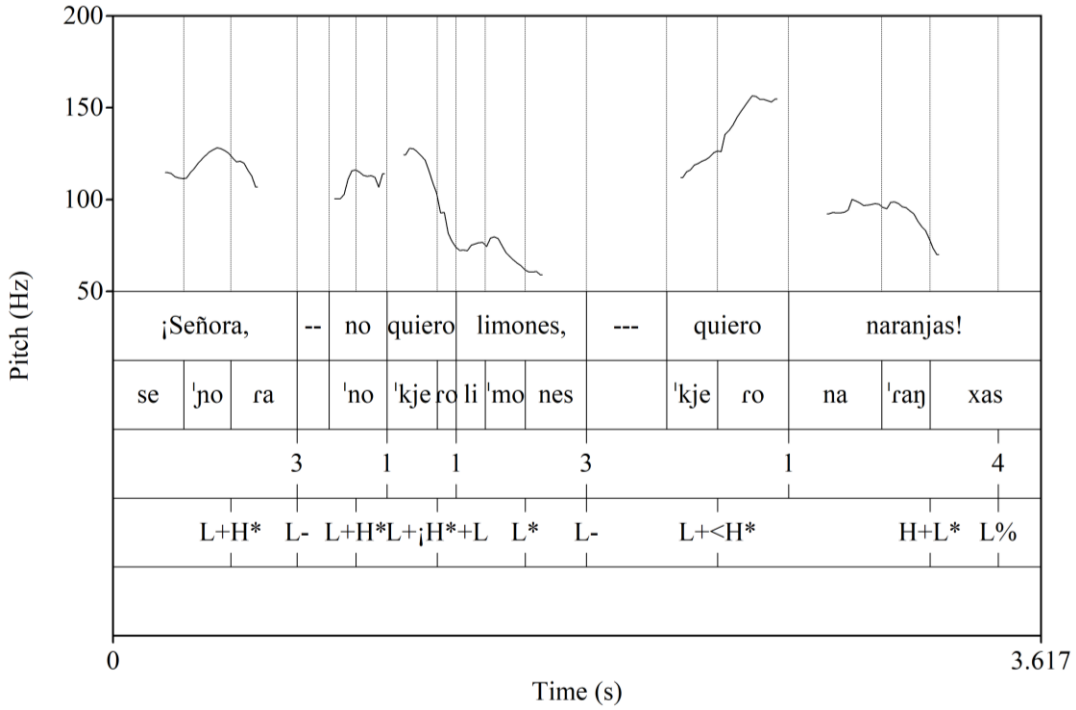


Figure 4.7: Sample Pitch Track of Nuclear H+L* from Data. MVM42-2, producing NFD1, peaks in the pretonic syllable of *naranjas*, leaving F0 to fall during the stressed syllable *ran*. In this example, the peak height over *naranjas* is above the bottom third of the speaker's pitch range, which is why it's not coded as L*.

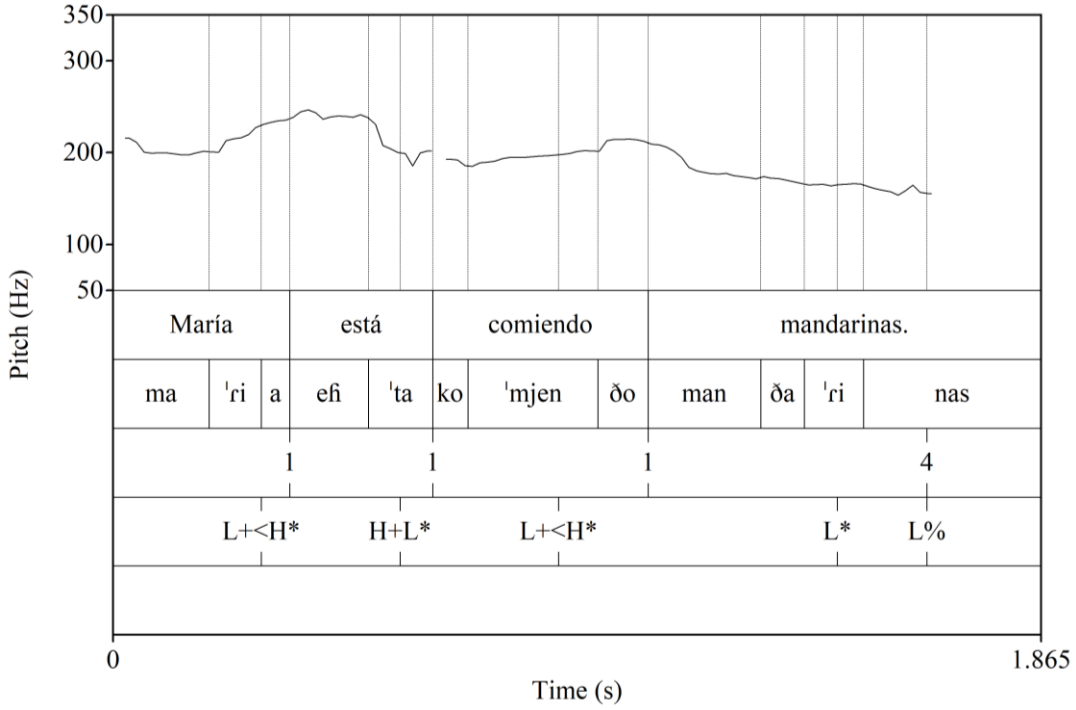


Figure 4.8: Sample Pitch Track of Prenuclear H+L* from Data. DZF34-2, producing BFD2, merges the late peaking pitch accent L+<H* over *María* with the falling pitch accent H+L* over *está*, such that during the stressed syllable *tá* F0 is falling from an earlier peak, hence H+L*.

Pitch accent L*+H is used to denote a low F0 track during the stressed syllable, with the associated rise starting in the posttonic syllable. At times, this initial low plateau is the landing site of a previous fall, which then flattens out for the remainder of the stressed syllable before the posttonic rise. Its peak will then occur in the posttonic syllable or even later. Commonly, due to this late start to the F0 rise, this peak will occur two syllables to the right of the stressed syllable. An example of L*+H in the data is presented in Figure 4.9. This extremely delayed peak can often stunt the following peak due to its need to fall before the following downstepped peak can start. We can see *peak stunting* in Figure 4.9, where F0 over *naranjas* is stunted by the previous delayed peak, leaving no time to rise before the end of the utterance. This is a prime example of peak stunting because *naranjas* is under narrow focus and should, therefore, have its own peak. This is not coded as H+L* because there is no stress clash as was described previously for BFD2. Moreover, it is auditorily clear that what one could think of as a pre-tonic peak is, in reality, a continuation from *quiero* and not attributed to *naranjas,* which sounds like a low afterthought.

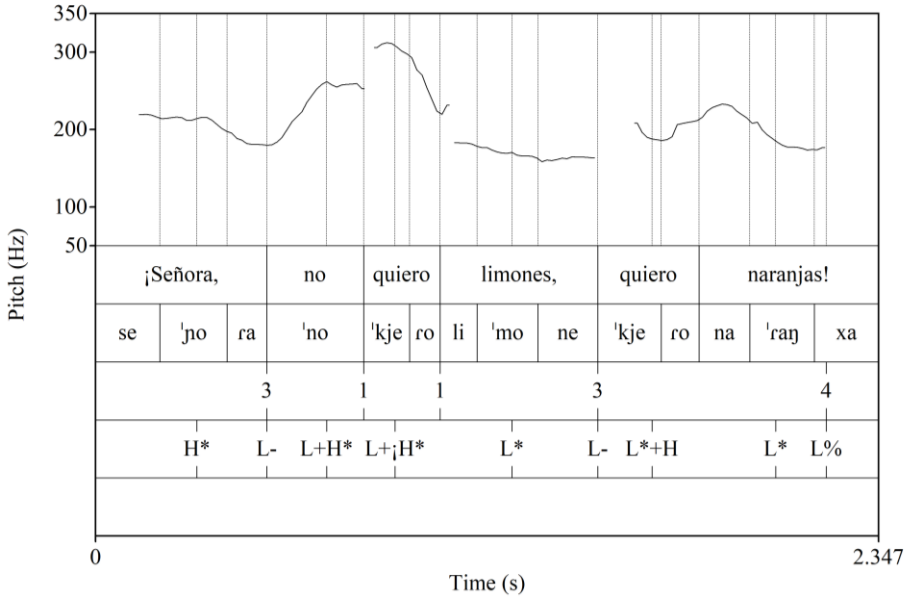


Figure 4.9: Sample Pitch Track of L*+H from Data. DZF55, producing NFD1, employs L*+H on the second *quiero*. F0 rises across two syllables and peaks in the following PW, thereby stunting a rise on *naranjas*.

Pitch accent L+<H* represents a rising F0 during the stressed syllable, which continues to rise into the posttonic syllable, where it peaks. In the present data, any amount of continued rise into the posttonic syllable was labeled L+<H*. If the peak bridged the syllable boundary but was not any higher in the posttonic than in the tonic, this was labeled L+H*, not L+<H*. L+<H* and L*+H differ because L+<H* rises throughout the stressed syllable, whereas L*+H remains flat. Also, it is not common for the L+<H* peak to occur later than the posttonic syllable. An example of L+<H* is presented in Figure 4.10. This pitch accent is also employed in Figure 4.8 above.

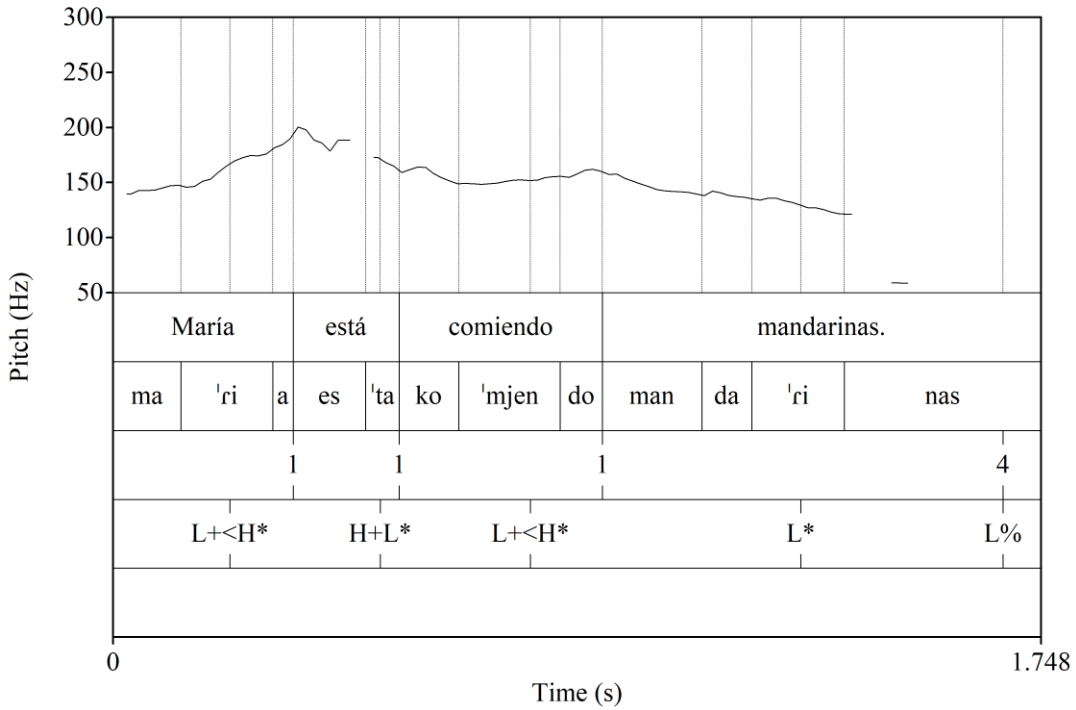


Figure 4.10: Sample Pitch Track of L+<H* from Data. MVF77, producing BFD2, employs pitch accent on both *María* and *comiendo* by peaking in the posttonic syllable.

Pitch accent L+H* represents a rising F0 during the stressed syllable, the peak of which is reached either within the stressed syllable or at the syllable boundary. In these cases, there is a lack of specificity in Sp_ToBI. In the present data, when a speaker uses L+H* to mark broad focus, F0 typically peaks on the syllable boundary, whereas for those informants that use L+H*

to mark narrow focus, the peak is typically reached within the stressed syllable, not on the boundary. In the future, a diacritic could be added to the pitch accent label to differentiate this peak alignment difference, but in the present analysis, following Sp_ToBI, this distinction is not coded. It is frequent, however, for the pre-boundary peaking L+H* in narrow focus to be upstepped (see the next section). Examples of each L+H* alignment, on the syllable boundary and before, are provided in Figures 4.11 and 4.12, respectively.

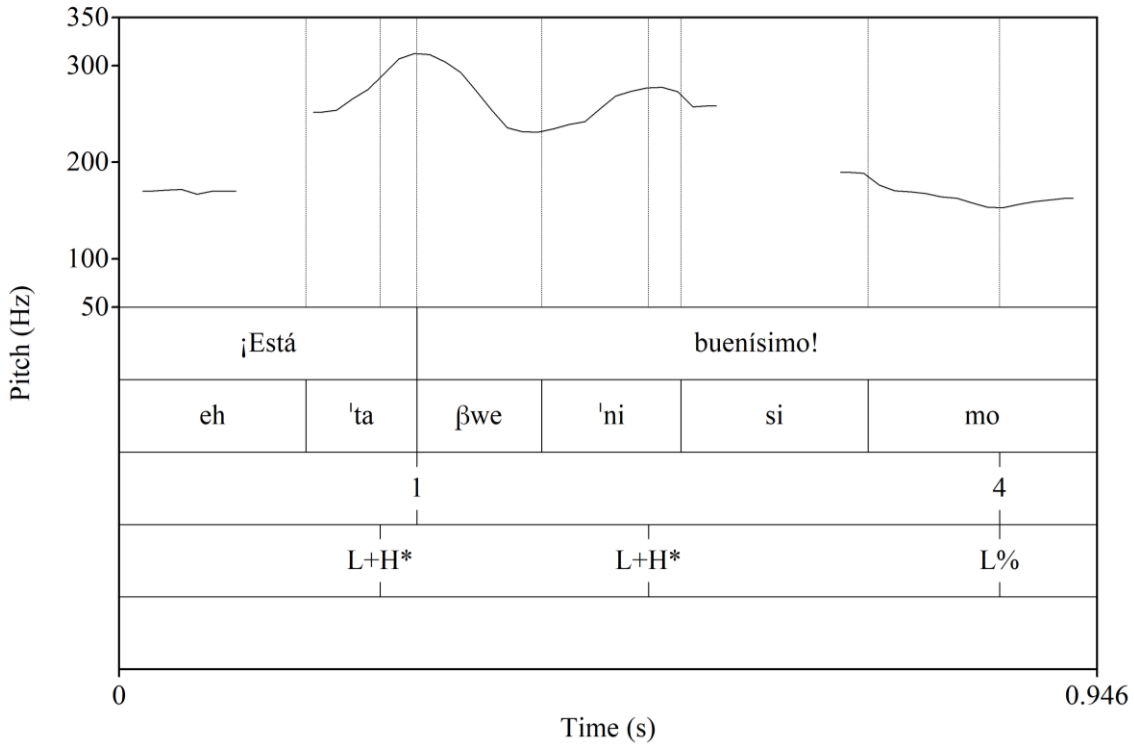


Figure 4.11: Sample Pitch Track 1 of L+H* from Data. DZF35, producing NFD6, employs L+H* for both words in this utterance, in *Está* the peak occurs at the syllable boundary, whereas in *buenísimo* it peaks before the boundary.

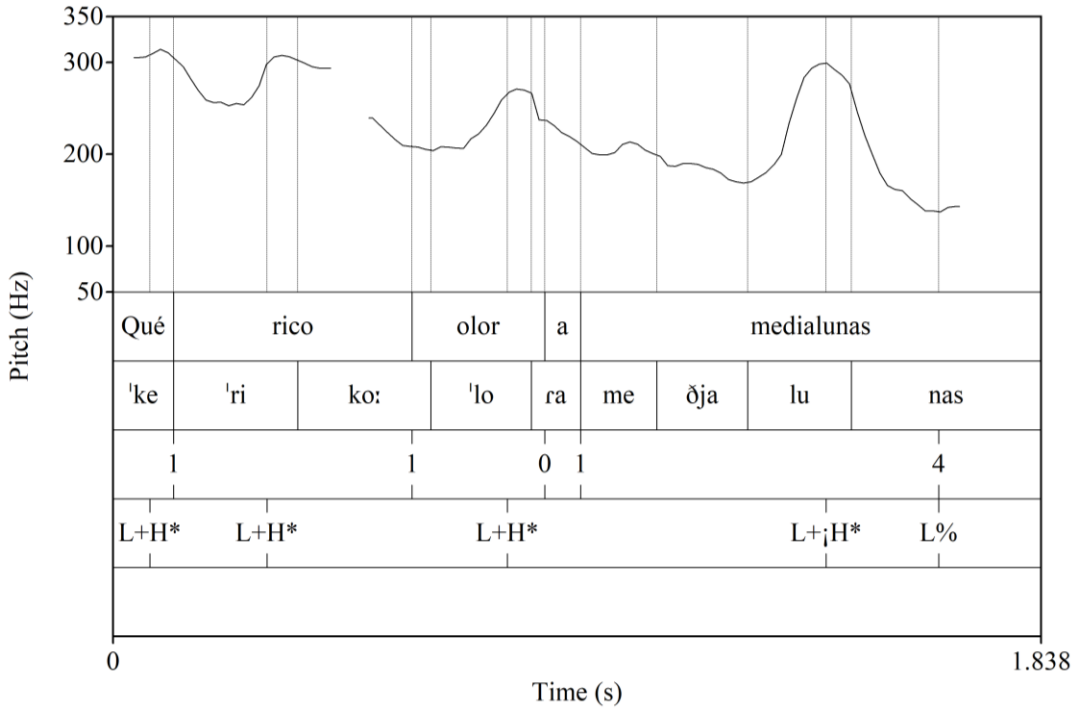


Figure 4.12: Sample Pitch Track 2 of L+H* from Data. DZF67, producing NFD2, employs L+H* throughout the utterance. Notice how the word *medialunas* peaks earlier and higher than the other pitch accents.

The final bitonal pitch accent L+¡H* is the upstepped version of L+H*. This pitch accent represents a rising F0 during the stressed syllable whose peak is reached either within the stressed syllable or on the syllable boundary but whose peak is also higher than the previous peak. This pitch accent is further discussed in Section 4.4.2.2 below.

4.4.2.1.3 Tritonals

Having covered monotonal and bitonal pitch accents in the previous sections, the last pitch accent considered is the tritonal pitch accent L+H*+L. As covered in Chapter 3, this pitch accent is not attested in all Spanish varieties. L+H*+L is characterized as a complete F0 rise and complete F0 fall within the confines of the stressed syllable. To be considered a complete rise and complete fall, the F0 valleys on both sides of the peak were compared, and the second valley was expected to be as low as the first.

Coding tritonals is especially tricky for oxytone words in nuclear position where a low IP boundary tone is expected, but where no syllables remain to allow the boundary tone to be independent of the nuclear pitch accent (e.g., NFD5 *¡Con Manuel!*). Therefore, to code this pitch accent, I also relied on auditory perception to determine if the fall was as intentional as the rise or if the fall was a consequence of the end of the utterance. To be coded as a tritonal, I required both a *guided rise* and *guided fall* of F0, rather than a trailing breathy F0. Therefore, if the F0 track showed a complete rise and complete fall during the nuclear stressed syllable but the fall was *unguided*, these were coded instead as L+H*. Also, if the potential tritonal had very little height, thereby not having a perceivable guided fall, these pitch accents were coded as L+H*, especially in nuclear position. Likewise, if a mid-boundary tone interrupted the fall, these too were coded as L+H* followed by a !H% boundary tone; see Section 4.4.2.4 for examples. Examples of the tritonal pitch accent in the present data are included in Figures 4.13 and 4.14.

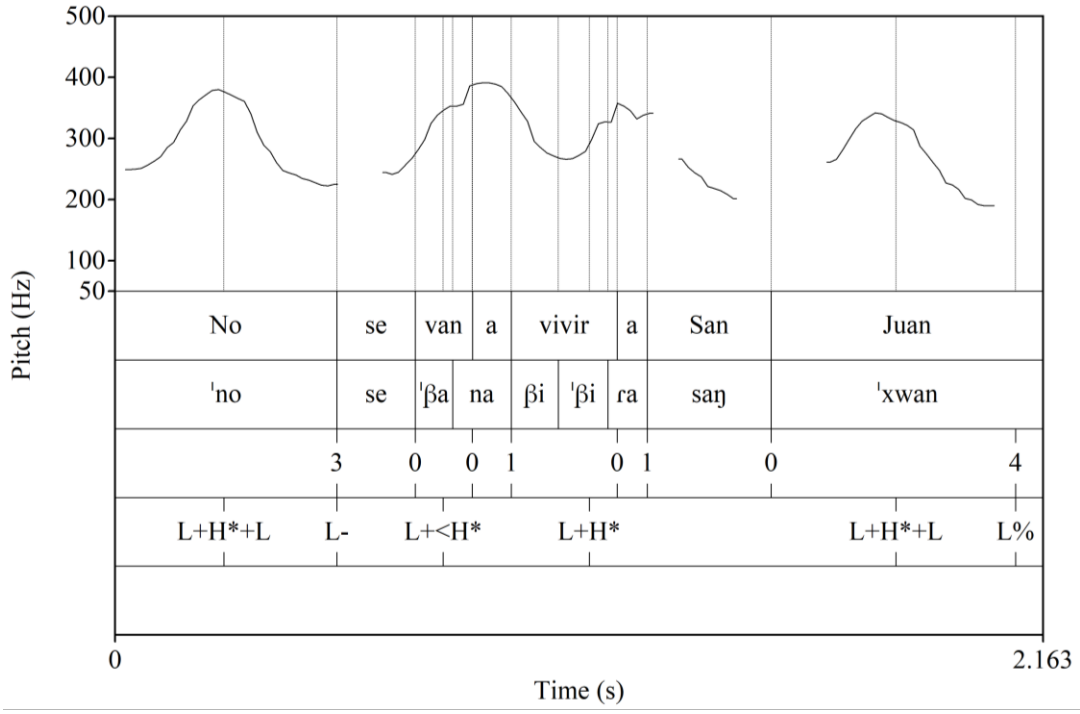


Figure 4.13: Sample Pitch Track 1 of L+H*+L from Data. MVF26, producing NFD3, employs the tritonal pitch accent for categorical negation on *No* and for corrective focus on *San Juan*.

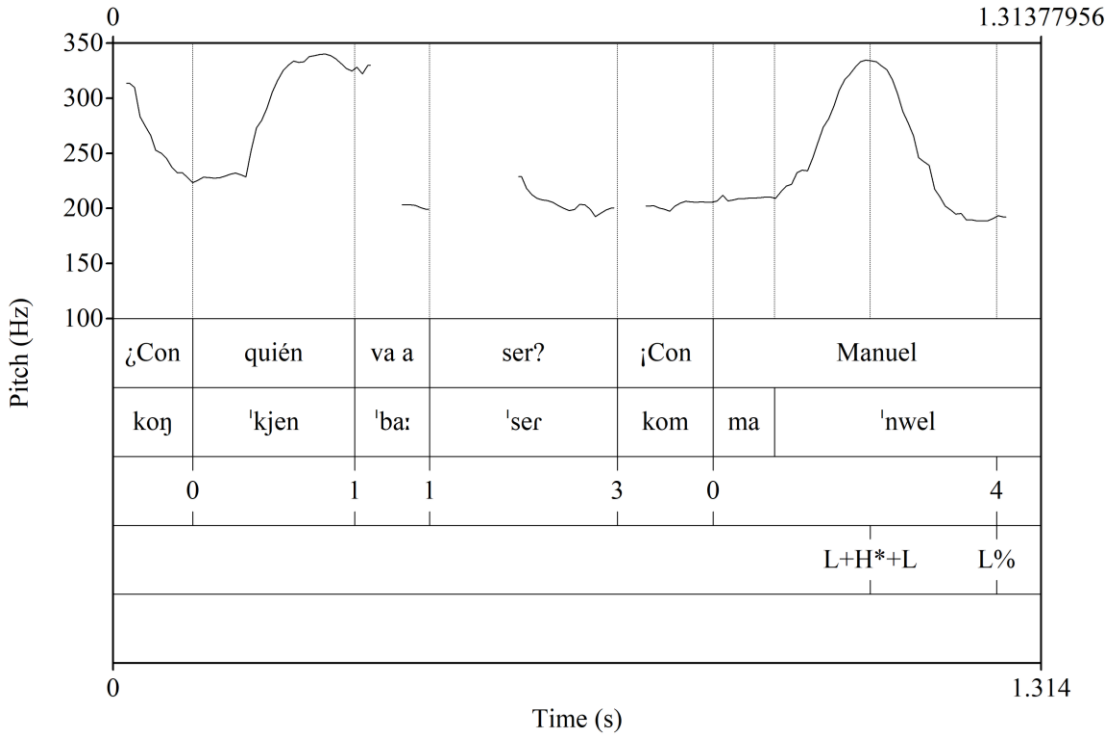


Figure 4.14: Sample Pitch Track 2 of L+H*+L from Data. MVF20, producing NFD5, employs the tritonal pitch accent on *Manuel* to mark a statement of the obvious.

4.4.2.2 Downstepping and Upstepping

As discussed in Chapter 3, Spanish BFDs are characterized by an F0 rise associated with every stressed syllable, with each subsequent peak being lower than the previous one; this is known as *downstepping.* Any departure from this norm via *upstepping* (i.e., a subsequent peak being higher than the previous one) would suggest the speaker emphasized the element, which could be done for any number of reasons. Face (2003) finds less downstepping in spontaneous speech. Such emphasis could signify new, corrective, or contrastive information, but it could also simply be a means of keeping listeners engaged in the conversation. The data from this dissertation will demonstrate that narrow focus falls on a spectrum because emphasis, passion, and frustration do not manifest as on/off but rather vary by degree. Upstepping is a tool employed by narrow focus to emphasize, whereas a combination of upstepping and other indicators of narrow focus (e.g., early peaking) strengthens the degree of emphasis.

Upstepping also occurs when the prior PW had little semantic value. Thus, the upstepped peak on the following PW signals its increased semantic value, see Figure 4.15 where *Qué* has less semantic value than *rico;* therefore, the peak over *rico* exceeds the previous peak height.

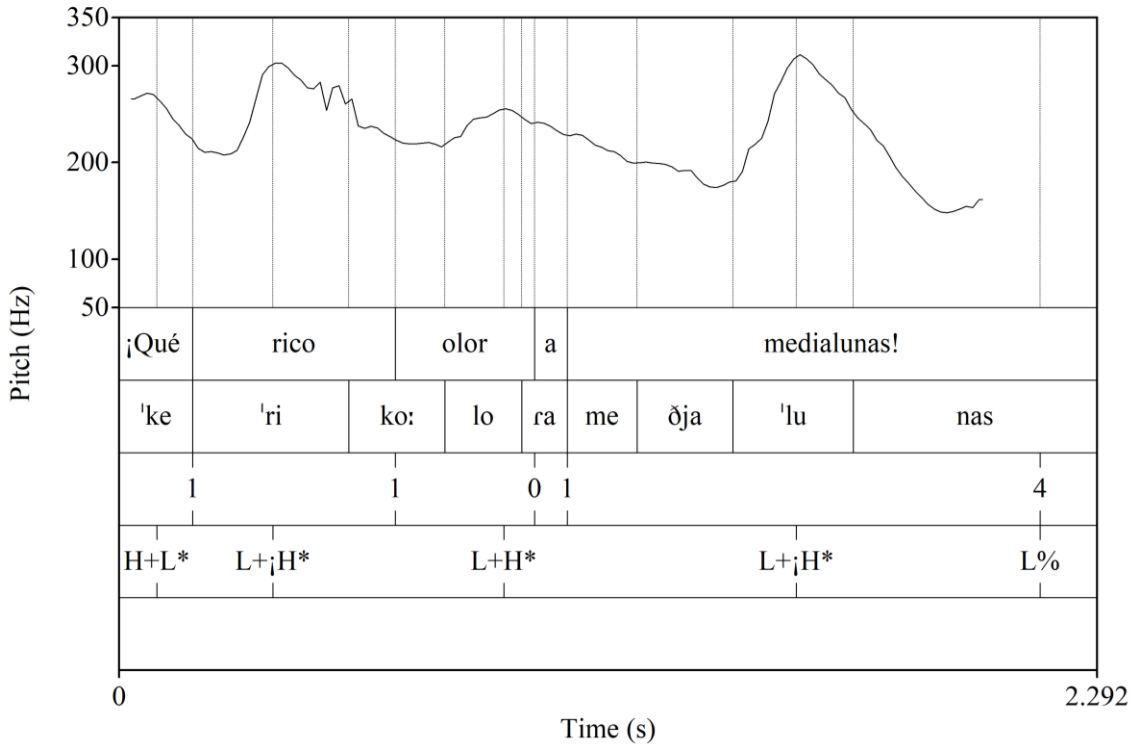


Figure 4.15: Sample Pitch Track of L+¡H* from Data. MVF77-2, producing NFD2, upsteps *rico* because it carries more semantic weight than *Qué*. Additionally, *medialunas* is upstepped because it is under narrow focus, it also peaks much earlier than the other non-focalized elements.

Upstepping is not limited to pitch accent L+H*. Instead, L*+¡H, L+<¡H*, and ¡H+L* are also possible. Figure 4.16 below provides an example of upstepping with pitch accent L+<¡H*.

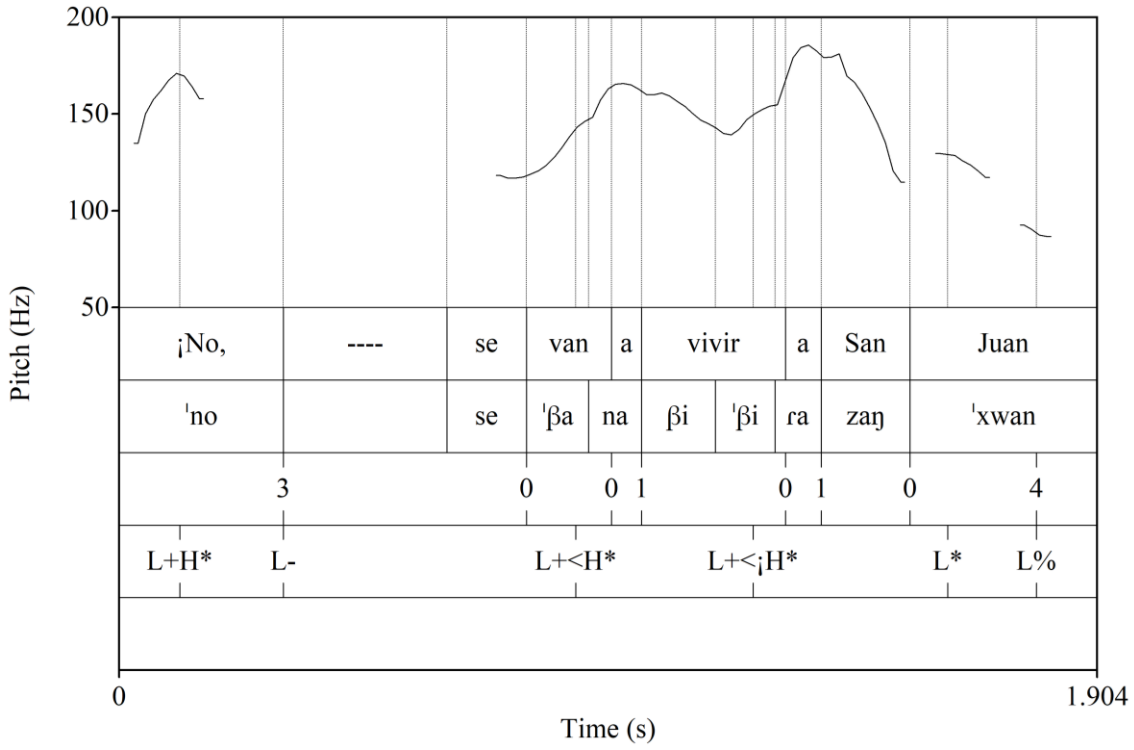


Figure 4.16: Sample Pitch Track of L+<¡H* from Data. DZM45, producing NFD3, employs L+<¡H* without marking narrow focus on *vivir*. The informant sounds as if he were speaking spontaneously.

In this dissertation, overt downstepping (!) was used sparingly because downstepping is expected unless otherwise noted. Examples of unmarked downstepping can be seen in all previous figures where upstepping (¡) does not occur. However, marked downstepping was employed with monotonal pitch accent H* (i.e., !H*) when a flat F0 occurred during a stressed syllable within the speaker's middle to upper pitch range. The H* was coded as !H* to demonstrate that, while flat, it was indeed lower than the previous peak rather than an extension of a previous rising peak. It was also used when multiple of the same tone occurred in a row. Therefore, multiple H* in a row suggests an unchanged plateau across multiple PWs (see Figure 4.5 above). Multiple !H* in a row implies that each is flat but still lower than the previous PW, as pictured in Figure 4.17 below. This means that rather than a rising F0, the speaker maintained a flat pitch, which then dropped off after the stressed syllable and was again sustained until

dropping again. Figure 4.18 demonstrates how !H* looks after a bitonal pitch accent. Downstepping (!) is also used with bitonal pitch accents to signify that the peak difference was very low in comparison to other bitonals of that classification. Some of these downstepped bitonals are below 7 Hz threshold, but with all relative peaks being extremely low across the utterance for the informant, the particular PW is not audibly monotonal.

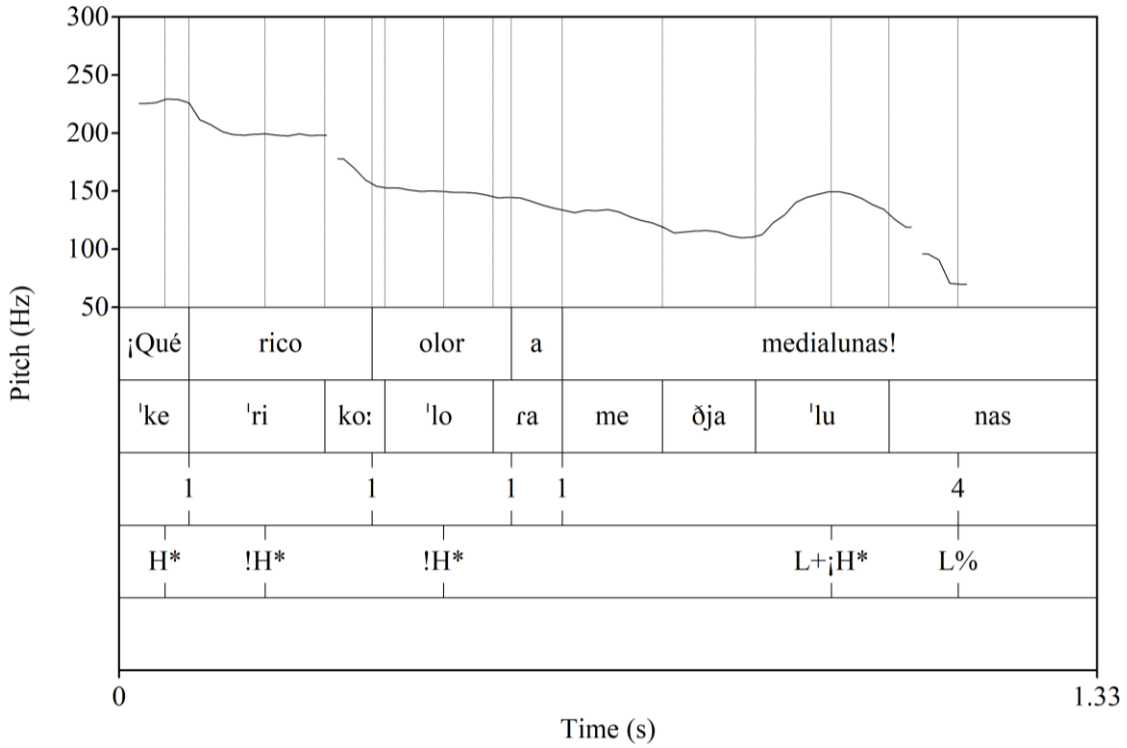


Figure 4.17: Sample Pitch Track of Repeated !H* from Data. DZF60, producing NFD2, employs !H* to signal flat stair treads. In this same utterance we see *medialunas* upstepped.

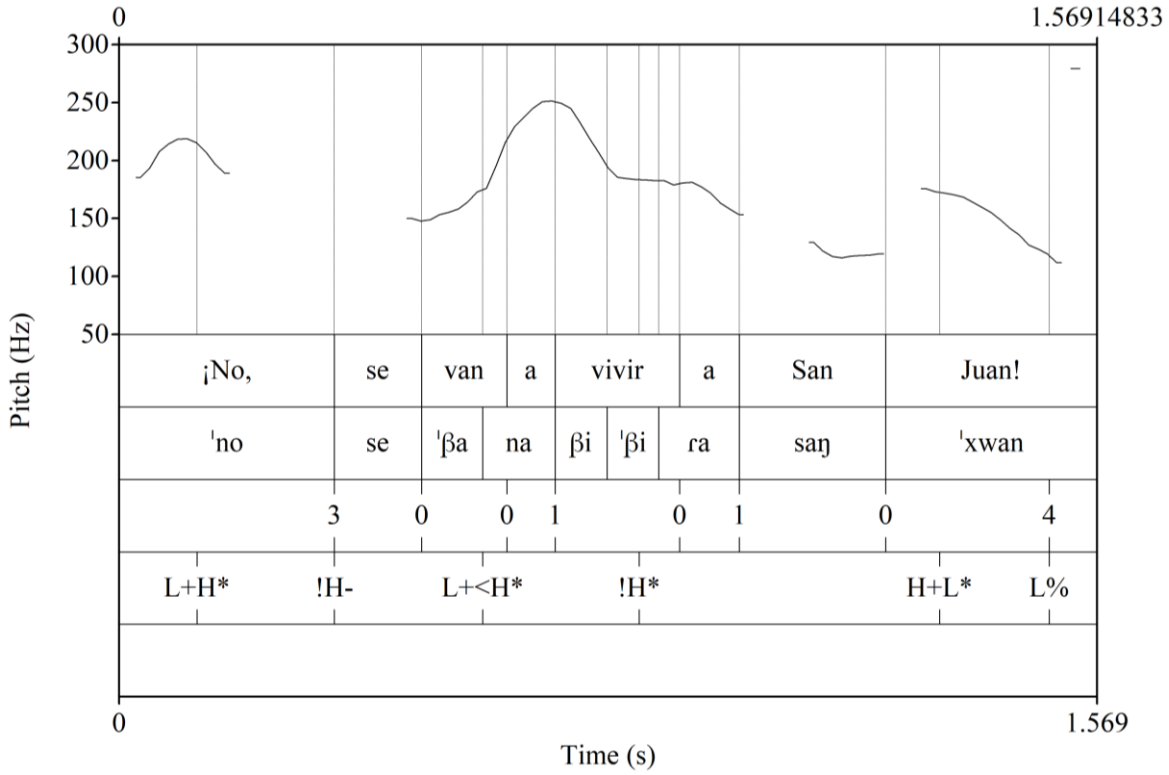


Figure 4.18: Sample Pitch Track of !H* after a Bitonal from Data. DZF60, producing NFD3, employs !H* over *vivir*.

4.4.2.3 Deaccenting

As I briefly mentioned in Chapter 3, deaccenting is, as it sounds, the absence of a pitch accent over an otherwise qualifying PW. Therefore, deaccenting is the omission of F0 movement during a qualifying stressed syllable (Rao, 2009). This lack of F0 movement is essentially a prenuclear L* that instead we label as deaccented (DA). It is a position along the F0 track where one might expect F0 movement, but the speaker has omitted it. By deaccenting, the speaker lets the meaning of the words communicate devoid of intonation. Face (2003) finds that deaccenting is common in spontaneous Spanish speech, especially among verbs, adverbs, and determiners. Deaccenting is not to be confused with L*+H; while F0 is flat during the stressed syllable of L*+H, the rise, anchored to the stressed syllable, occurs in the posttonic syllable. When deaccented, there is no F0 movement in the tonic or posttonic syllables attributed to the PW. In the present data, some deaccented PWs are flat, while others appear to have a falling F0. This

falling F0 is, in reality, leftover from the previous PW that goes uninterrupted because the following PW has been deaccented, as pictured in Figure 4.19 for the verb *vivir*. In this utterance, this verb is not commonly deaccented by the informants, making this choice a clearer example of deaccenting. An additional example of deaccenting is provided in Figure 4.20 where the rise on the verb and quantifier are omitted.

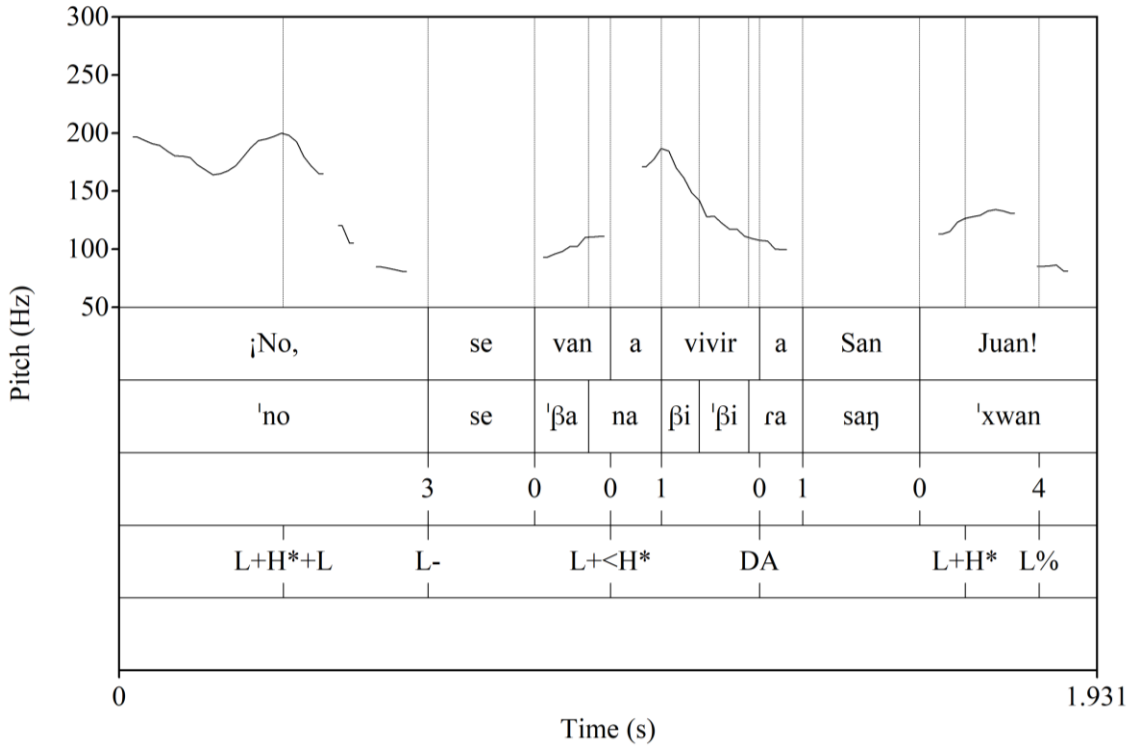


Figure 4.19: Sample Pitch Track 1 of Deaccenting from Data. MVM68, producing NFD3, deaccents the verb *vivir* allowing the F0 peak anchored to *se van a* to fall unimpeded.

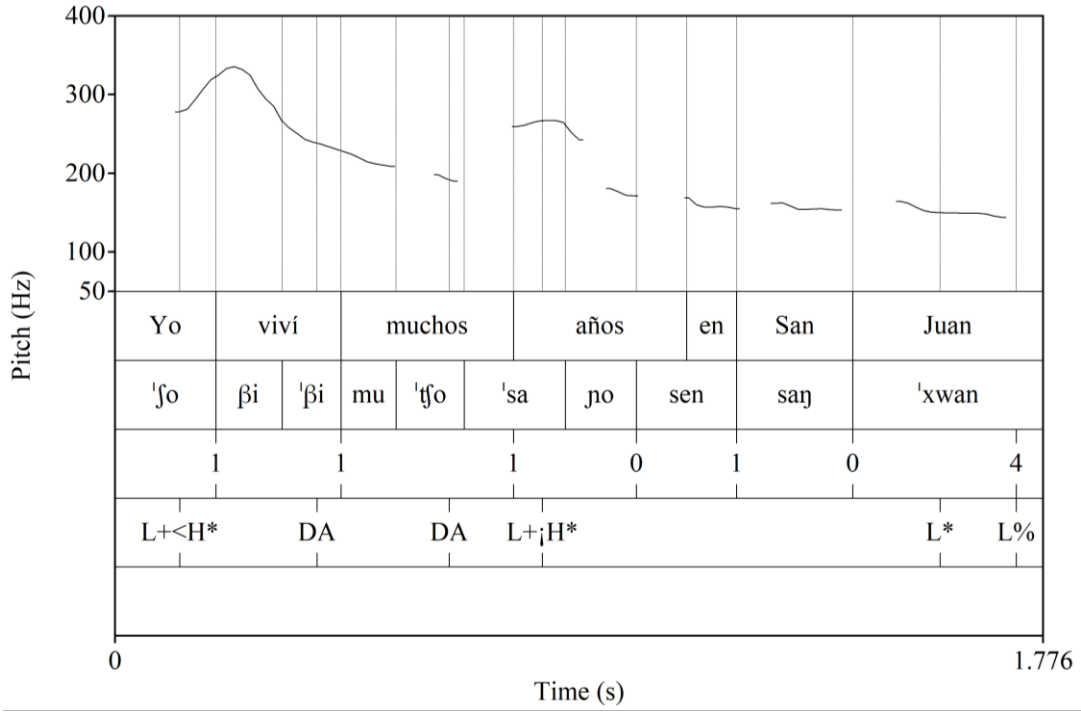


Figure 4.20: Sample Pitch Track 2 of Deaccenting from Data. MVF34, producing BFD3, deaccents *viví* and *muchos.*

In nuclear position, pitch accent L* is not coded as deaccented because, in this position, F0 is often flat due to final lowering. Meanwhile, a flat F0 track mid-utterance is a linguistic choice. Deaccenting is not random but is governed at least in part by syntax and pragmatics and allows for greater intonational contrasts in speech.

4.4.2.4 Boundary Tones

4.4.2.4.1 Intermediate Boundary Tones

Recall from Chapter 3 that intermediate phrases (ip) are smaller phrases within the larger utterance. These can be identified with the help of specific phonetic cues that signal the boundaries of an ip. These cues include a rising pitch in the final syllable, signaling the speaker will continue speaking, a longer duration of the final stressed syllable, signaling the end of a phrase, a large pitch range increase or decrease, and pauses (Rao, 2009, p. 34). In the case of

the existence of an ip, there is an intermediate boundary tone, expressed with the - symbol (e.g., H- or L-), to indicate a high or low intermediate phrase boundary.

Intermediate phrase boundaries can be predicted with the help of syntax and punctuation. The prosodic hierarchical structures presented in Appendix B, base themselves on utterance syntax and punctuation. By providing the situations and target phrases to each informant, the DCT aims to imply specific intermediate phrasal boundaries. However, when speakers interpret the situation and say the target phrase authentically in their voice, intermediate phrase boundaries can be added[54] (e.g., NFD2 "*qué rico olor* [H-] *a medialunas*" NFD4 "*Es posible* [H-] *que no le guste el regalo*" NFD6 "*Está* [H-] *buenísmo*") or overlooked (e.g., NFD1 "*Señora,* ~~[L-]~~ *no quiero limones,* [L-] *quiero naranjas*"). As long as the intonation used was not indicative of a listing effect, these deviations from the expected ip boundaries were included in the analysis.

Figure 4.21 shows the expected use of the ip boundary tone L- in NFD1. The only utterance expected to use H- consistently was BFD3, which was cut from this analysis, as I explained earlier in Section 4.3.4. Therefore, Figure 4.22 shows a less expected use of the ip boundary H- in NFD1. Devoicing of the final syllable cuts the F0 track, but there is no perceptional fall to an L-. In fact, due to this H-, *no quiero limones* is perceived as incomplete without the addition of *quiero naranjas*, whereas the use of L- in Figure 4.21 allows ip *no quiero limones* to be used alone as a complete idea. I attribute the unexpected salient intonational

[54] While not analyzed in this dissertation, after the VULC informants performed the target phrase three times, they were permitted to reply with a phrase of their own making for the situation presented. This would allow the informant to invent a phrase and produce it spontaneously. Some informants, who either did not understand that they could create their own phrase or found the target phrase adequate for the situation, would repeat the target phrase a fourth time, but this time with additional hesitations and pauses. By speaking in smaller chunks separated by pauses, hesitations, or filler words (*muletillas*) (e.g., em, este) the speakers made the utterance their own. These pauses convey that the informants are speaking with greater caution while thinking and speaking simultaneously. These additional examples, which are not analyzed in this dissertation, support the ip variation that occurs throughout the utterances analyzed in this dissertation.

differences pictured in Figure 4.22 to the rurality of informant DZM62. This dissertation draws on a total of 4 rural males. The rurality of DZM62 comes through in NFD1.

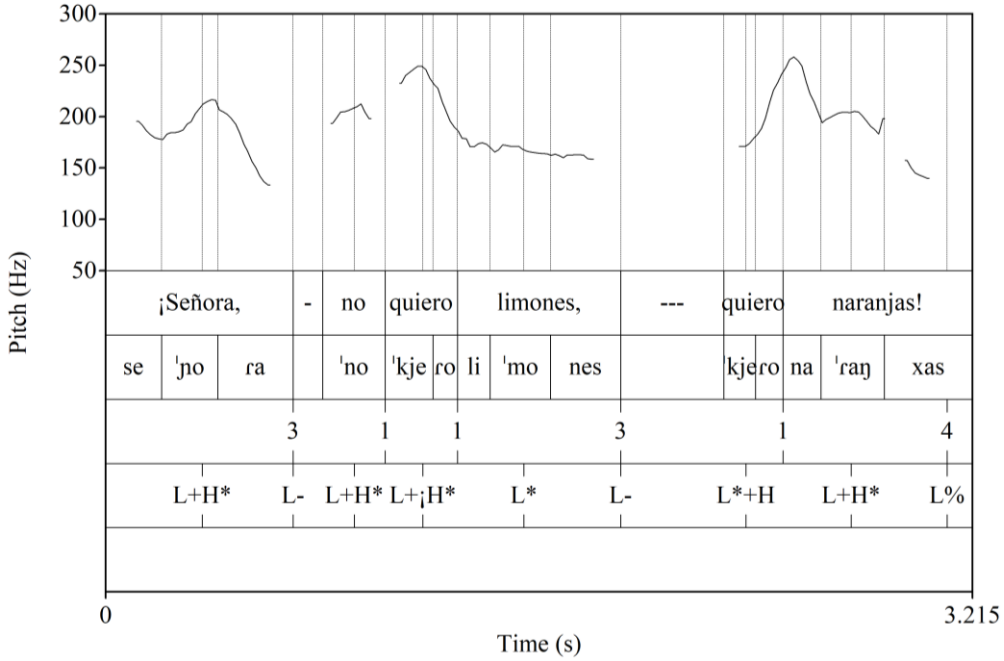


Figure 4.21: Sample Pitch Track of L- ip Boundary Tones from Data. DZF35, producing NFD1, employs L- after *Señora* with a short pause (-) and again after *limones* with a longer pause (---).

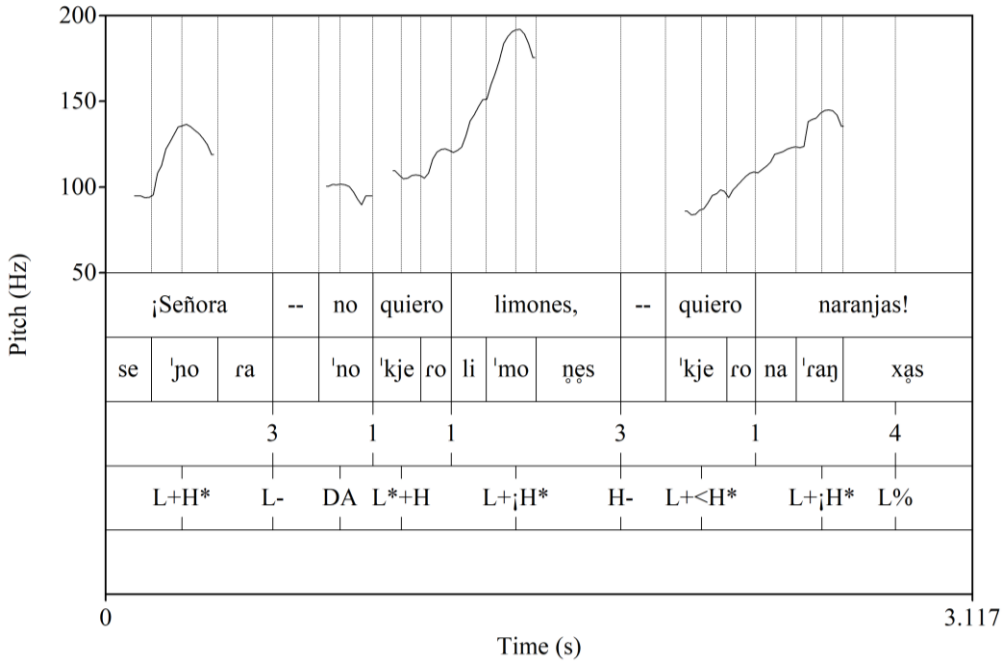


Figure 4.22: Sample Pitch Track of H- ip Boundary Tone from Data. DZM62, producing NFD1, employs L- after *Señora* with a medium pause (--) but after *limones* F0 remain high H- in the pitch range.

4.4.2.4.2 Intonational Phrase Boundary Tones

Recall from Section 3.2.3 that Intonational Phrase (IP) Boundary Tones occur at the end of an utterance and play a crucial role in distinguishing between utterance types, especially declaratives and absolute interrogatives. The IP boundary tone represents F0 movement after the nuclear stressed syllable.

Not all the boundary tones provided in Chapter 3 are common in this dissertation since this dissertation is limited to BFDs and NFDs. Here, I include descriptions and examples of those IP boundary tones that are attested in the data. Boundary tones coded as L% represent an F0 track that is flat or falling in the bottom third of the speaker's pitch range for that utterance. Of the boundary tones presented in Chapter 3, L% is the most frequent, and numerous examples can be seen in the previous Figures in this chapter. In cases where the utterance ended with an oxytone word (i.e., stress on the final syllable), there is limited space to see F0 movement to determine the IP boundary tone. However, as pictured in Figure 4.14 above, the utterance ended low and was thus coded as L%. In my analysis, when F0 bottomed and began to rise slightly after the nuclear stressed syllable, which some code as L!H%, or LM% in older analyses, I chose to code these as L%, with two exceptions both in Durazno BFD1, because, in the present data, this F0 rise did not escape the bottom third of the speaker's pitch range. This final F0 movement was not used to differentiate meaning and was not audibly salient.

Boundary tone !H% was used to classify an F0 track that, visually or audibly, in the case of final devoicing, did not fall completely after the nuclear pitch accent. This frequently meant that F0 plateaued in the middle of the speaker’s pitch range or was falling within the middle of the pitch range when the speech ended abruptly. An example of !H% is pictured in Figure 4.23. Compare to L% in Figure 4.14.

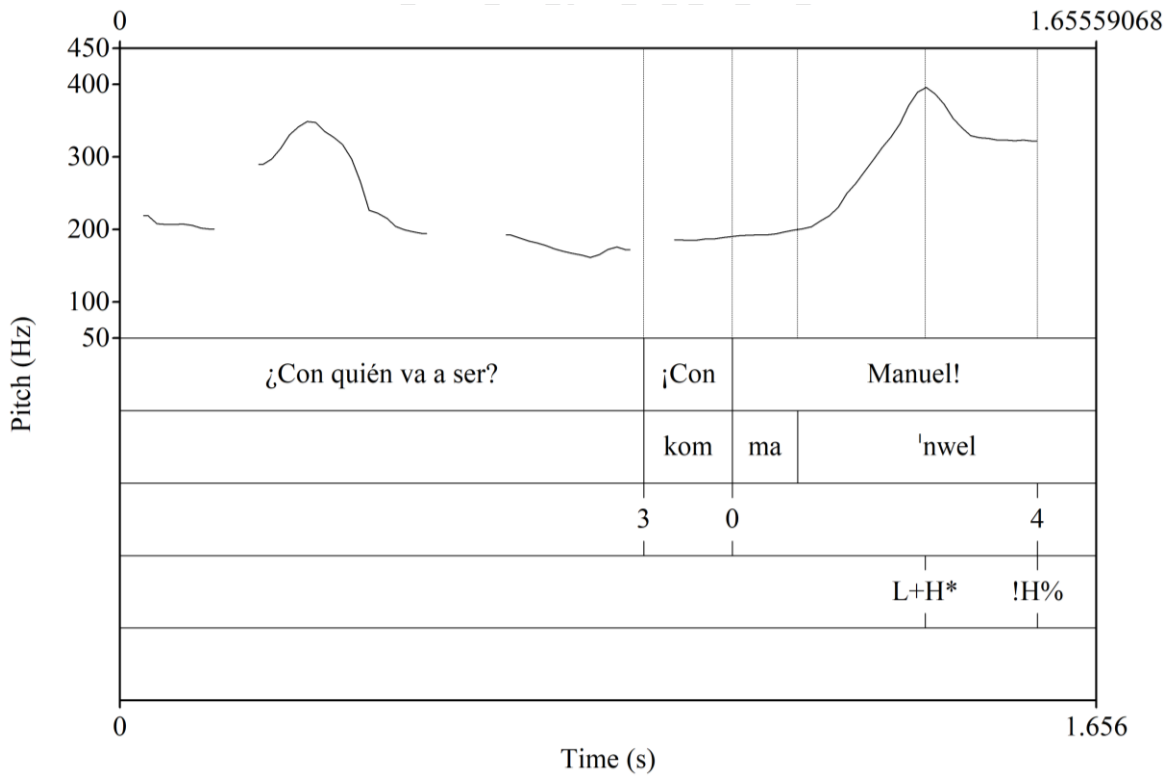


Figure 4.23: Sample Pitch Track of !H% IP Boundary Tone from Data 1. DZF56, producing NFD5, employs !H% by discontinuing the post-peak F0 fall, forming a mid to high plateau lower than the nuclear peak.

In my analysis, !H% was also used to code a minimally different contour that was likewise detained at the mid-level but began to rise slightly rather than plateau. I chose to code this as !H% because, in the present data, this F0 rise did not rise above the nuclear pitch accent's peak. This final F0 movement was not used to differentiate meaning from that of the plateau and was not audibly salient. In the singular case where the boundary tone rise surpassed that of the nuclear pitch accent's peak, this was coded as LH%. This boundary tone is only a real possibility for NFD2, where tag question intonation was added to the emphatic declarative without employing a tag word, as pictured in Figure 4.24.

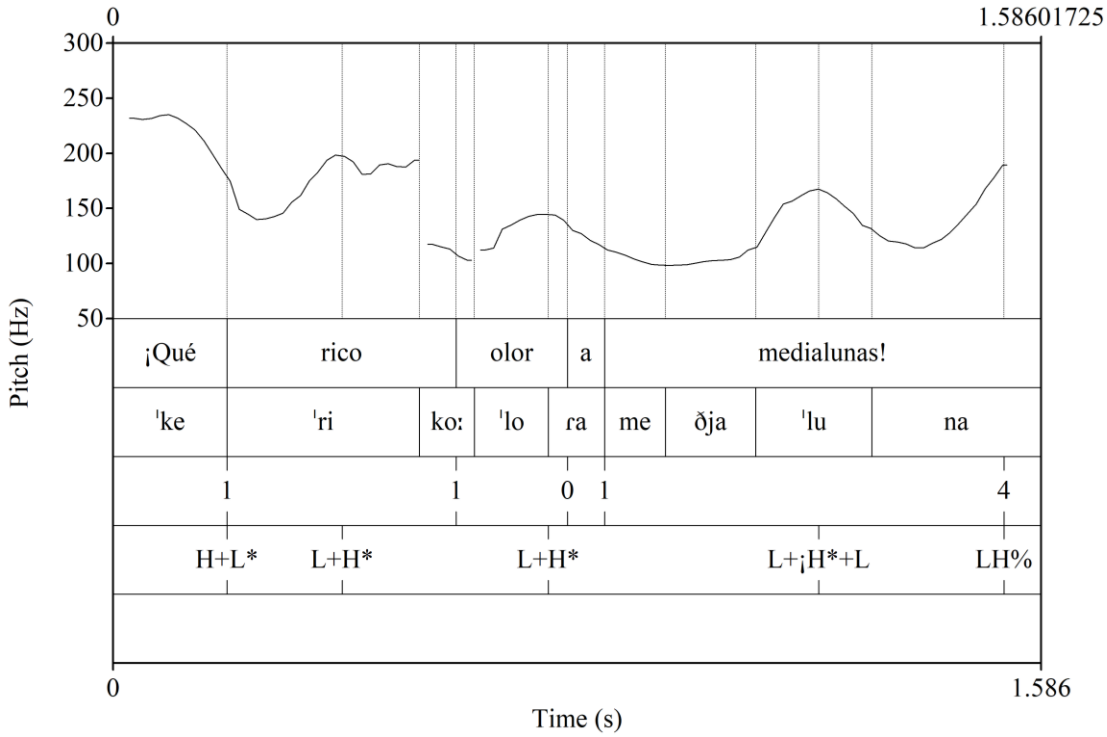


Figure 4.24: Sample Pitch Track of LH% IP Boundary Tone from Data. MVM37, producing NFD2, employs LH% to convert the emphatic declarative into a type of rhetorical tag question. This is an authentic, though unintended interpretation.

4.4.2.5 Treatment of Final Devoicing

Final devoicing is common as the end of the sentence trails off into silence. This loss of speech quality would not have occurred if the pitch were anything but low and flat. Therefore, in the present analysis, if the nuclear pitch accent was devoiced, it was coded as L*, and if the devoicing occurred during the IP boundary tone, this was coded as L%, as pictured in Figures 4.7 and 4.10 above. Additionally, when final voicing began to lose its purity and became creaky voice this would frequently disrupt the F0 contour, and these were also coded as L%.

4.4.2.6 Statistical Methods and Analyses

All pitch accents and boundary tones were documented using Excel and where analyzed using R (R Core Team, 2023). Since all data in the dissertation is count data (i.e., how frequently each pitch accent and boundary tone are used), a Poisson regression model was run to test for statistical significance. First, this analysis looks at Montevideo and Durazno separately. For each

department the pitch accents and boundary tones of focalized versus non-focalized PWs are compared generally and the frequency patterns are analyzed. Next, the intonation of all focalized PWs are compared by utterance to establish general patterns for different types of narrow focus. These general patterns are subsequently examined along the social variables of gender and age. Once conclusions are drawn for each department independently, the findings for each are compared and a Poisson regression model was run to test for the statistical significance of differences in these patterns. This second analysis compares the general patterns of each department, followed by patterns by focus, utterance, and social variables. Lastly, potential correlations between syntax and intonation are explored.

4.5 Conclusion

This chapter addressed informant recruitment and selection, study design and elicitation procedure, and how the acoustic analysis was conducted and coded according to the Sp_ToBI labeling system. Examples of each pitch accent and boundary tone were provided to demonstrate how the analysis and coding looked for each informant. Without these examples, readers are left to trust that all researchers manage to interpret the F0 track in the same way, which, despite great effort, is an ongoing struggle. Recall from Chapter 3 that Sp_ToBI has evolved over the last 20+ years, making earlier analyses difficult to compare based solely on coding alone; the figures prove invaluable. Also, without sufficient data, it is difficult to see variation, which can lead to conclusions that may prove problematic once more data is analyzed. When conducting the acoustic analysis on the present data, I began with Montevideo, and I believed my first analysis to be accurate. However, I was forced to review the coding of the Montevideo data to ensure consistency in my analysis once I began analyzing Durazno. Durazno presented me with different intonation patterns that required additional nuance in coding, mainly in the coding of

potential tritonals, a nuance I had not considered when analyzing the Montevideo recordings. Ultimately, after reviewing each utterance three times over the span of several months, I managed to ensure consistency and nuance in my coding. After explaining how I coded each recording, I outlined how the statistical analysis was carried out and provided a road map for how the results will be presented in Chapter 5.

Chapter 5: Results

5.1 Introduction

In this chapter, with the aid of Poisson regression testing[55], I present the principal intonation patterns of Broad-Focus Declaratives (BFDs) and Narrow-Focus Declaratives (NFDs) and explore the geographic and sociolinguistic variation present in the data. These results are presented by department, first Montevideo and then Durazno. Intonation in each department is presented by focus type. Any sociolinguistic variation, as it relates to that focus type, is addressed at that time. After Montevideo has been fully described, the results for Durazno are presented in the same fashion. Finally, the intonation patterns of each department are compared. Due to the limited number of BFDs, as discussed in Chapter 4, the phonological targets anchored to non-focalized PWs in the NFD utterances are combined with those of the BFDs in this analysis. Therefore, the analysis of NFDs treats only the phonological targets anchored to PWs under narrow focus. How these results compare to other varieties is discussed in Chapter 6.

5.2. Phonological Results for Montevideo

5.2.1 BFD Nuclear Configurations

For the 30 Montevideo informants analyzed, a total of 90 BFD nuclear pitch accents were produced, coded, and analyzed. Figure 5.1 provides a count of each nuclear configuration (i.e., pitch accent and IP boundary tone).

[55] A special thank you to Kyle Parrish for assisting me with the statistical analysis.

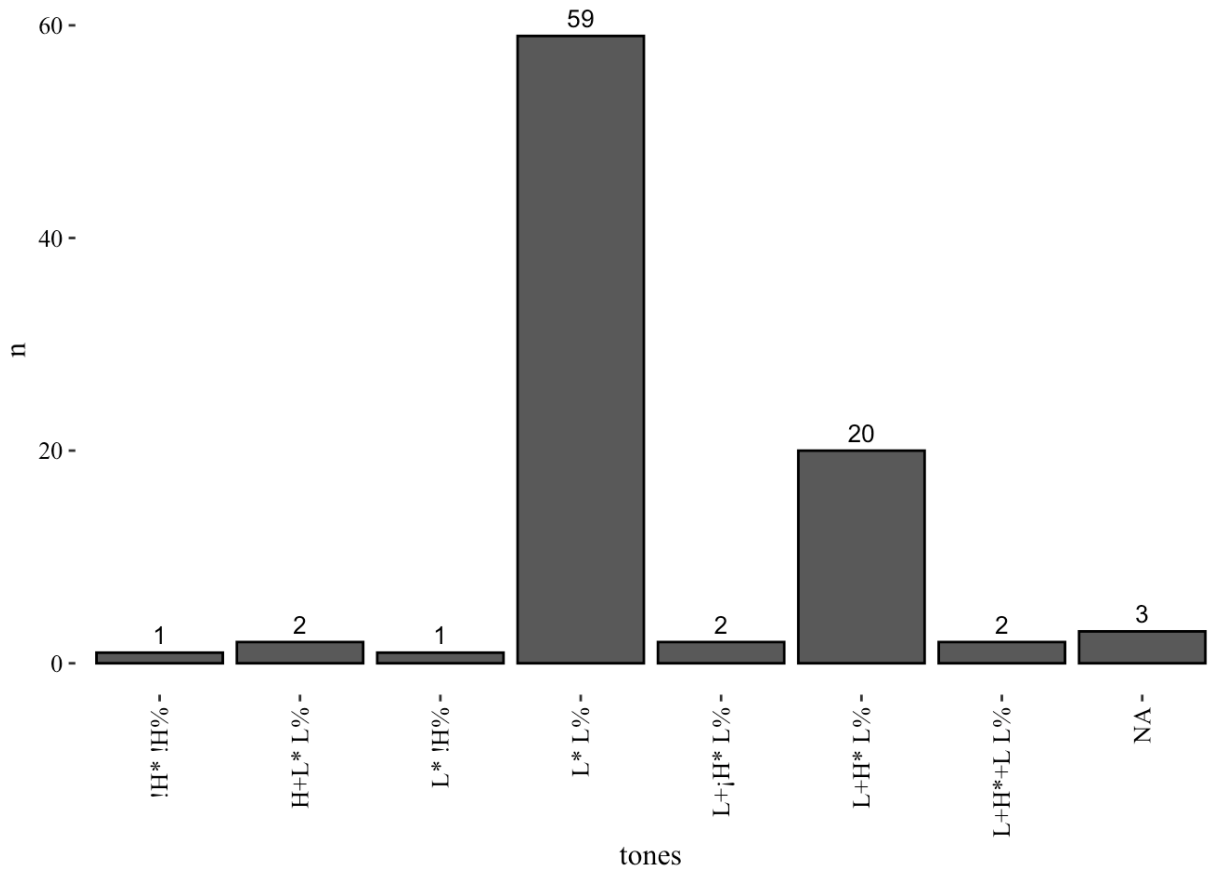


Figure 5.1: Montevideo BFD Nuclear Configurations

A Poisson regression was run where the dependent variable was *n* (number of occurrences), and the independent variable was tone. Only the two most frequent nuclear configurations, L* L%, and L+H* L%, were included. The model revealed a significant difference between these two levels ($\beta = -1.08$; $p < .05$). The increased number of L* is due, in part, to the sentence structure. Due to downstepping, the further from the start of the utterance, the lower the nuclear pitch accent. In BFD1, being a one-word sentence, *mandarinas,* shows the greatest variation in pitch accent. In BFD2, being a multiple-word sentence, *María está comiendo mandarinas*, L* L% is more common. In BFD4, a multiple-word sentence with a peripheral prepositional phrase *Yo viví muchos años, en San Juan*, the nuclear configuration employed is nearly unanimously L* L%, as pictured in Figure 5.2.

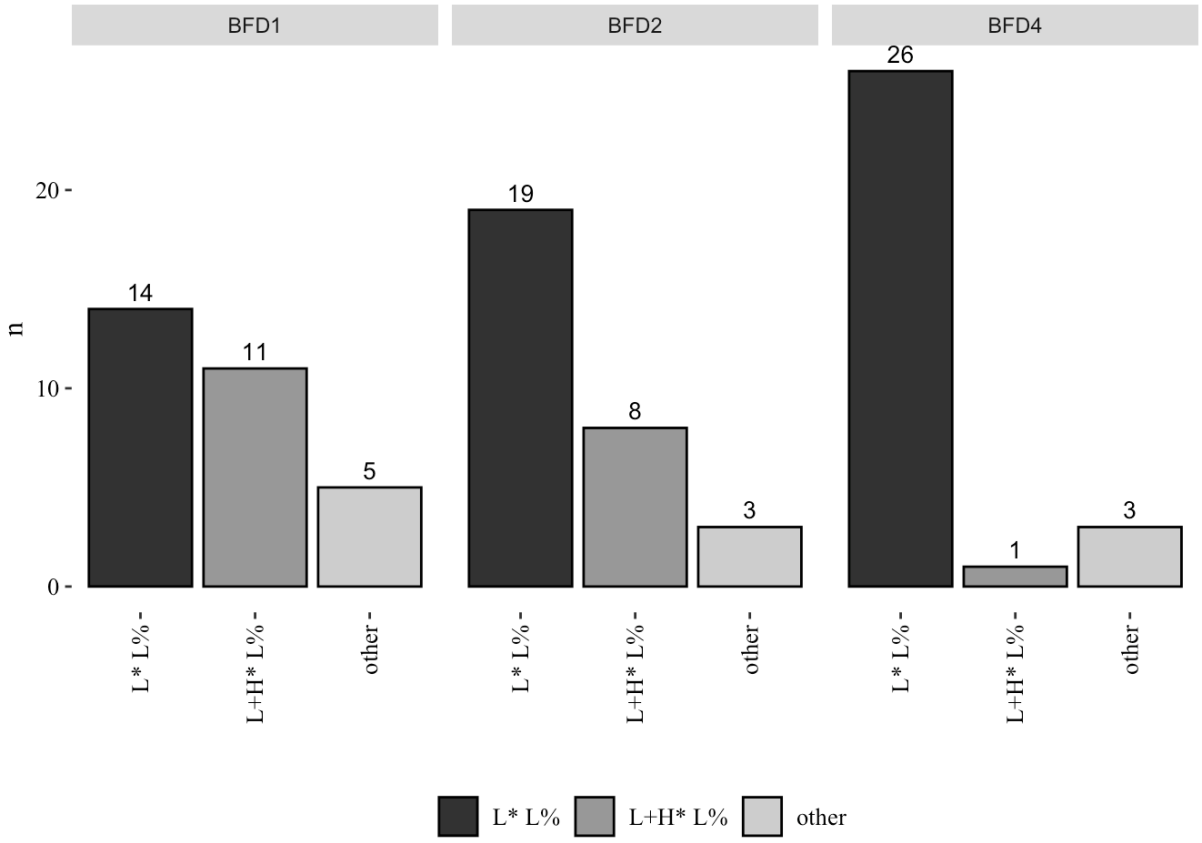


Figure 5.2: Montevideo BFD Nuclear Configurations by Utterance

Figure 5.2 clearly shows that the growing preference for L* over L+H* is due to sentence structure. There were no significant differences observed by gender or age in nuclear position in Montevideo BFDs.

5.2.2 BFD and Non-focalized NFD Prenuclear Pitch Accents

Due to the limited number of BFDs, this section considers all prenuclear, pre-focal, non-focalized PWs in the NFD utterances to have a broad focus. This choice is substantiated by the informants' use of the same pitch accents in this position as employed in BFDs. 7 of the 9 utterances consist of one or more broad-focus PWs. Between BFDs and NFDs, there are 21 prenuclear pre-focal broad-focus PWs (henceforth, Non-focalized Prenuclear PWs), making 630 tokens across the Montevideo informants. Figure 5.3 presents the count of each prenuclear pitch accent.

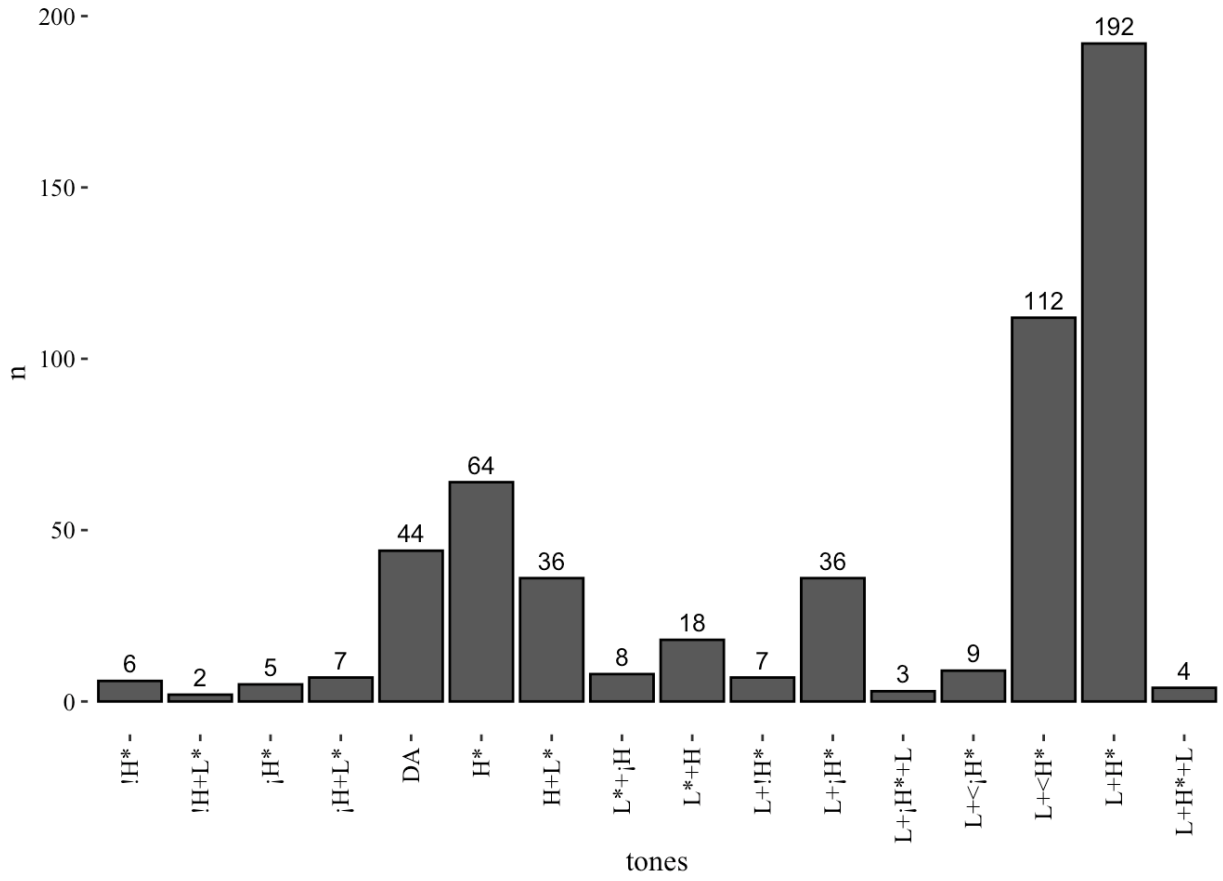


Figure 5.3: Montevideo Non-focalized Prenuclear Pitch Accents

Based on Figure 5.3, pitch accents L+H* and L+<H* are by far the most common in prenuclear position in BFDs and non-focalized NFDs. A Poisson regression was run where the dependent variable was n (number of occurrences) and the independent variable was tone (6 levels for this model: H*, H+L*, L+¡H*, L+<H*, L+H* and DA). The intercept of the model is DA, meaning pitch accents L+<H* and L+H* are predicted by the model to be produced significantly more than DA ($p < .005$). Ignoring momentarily the upstepped (¡) and downstepped (!) pitch accents to only consider peak alignment, the preference for early peaking L+H* becomes more apparent. An additional Poisson regression comparing L+H* and L+<H* found the difference to be highly significant ($\beta = .54$, $p < .0005$). However, the question remains: Why are both L+H* and L+<H* used rather than just one? Recall for Chapter 3 that in some Spanish

varieties these two pitch accents are phonologically contrastive, but in Montevideo they appear to be used interchangeably without marking narrow focus.

While there was no observed sociolinguistic variation in BFD nuclear position in Montevideo, there are two statistically significant differences in the prenuclear position. The comparisons here are Poisson regressions where the dependent variable in each case is the number of productions, and the independent variable is gender. Figure 5.4 shows that females employ L+<H* significantly more than males ($p < .005$) and that males employ monotonal pitch accent H* more than females ($p < .05$). However, both males and females use L+H* the most to code broad focus.

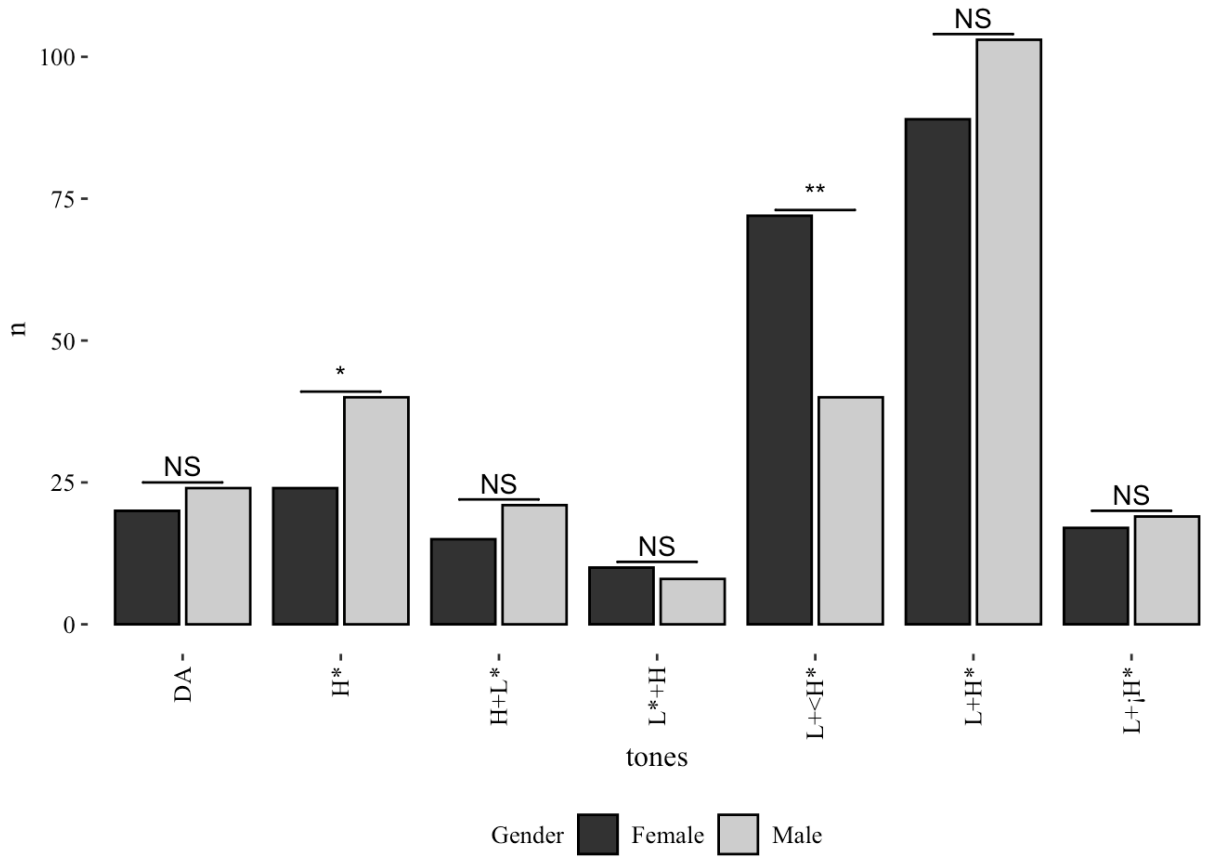


Figure 5.4: Montevideo Non-focalized Prenuclear Pitch Accents by Gender

Regarding age, there are 5 more G2 informants than G1 and G3, which may be skewing the data; keeping that in mind, Figure 5.5 demonstrates how non-focalized prenuclear pitch accents compare by age. The most interesting finding of Figure 5.5 is that G3 (i.e., age group 60+) prefers L+H* over L+<H* ($p < .05$). This finding invites the question: Is the disparity between early and late peaking between G2 and G3 because of the increased number of G2 informants or is the intonation of Montevideo changing? Additional research is needed to answer this question. The findings presented in Figures 5.4 and 5.5 suggest that L+<H* is less frequent among males and G3.

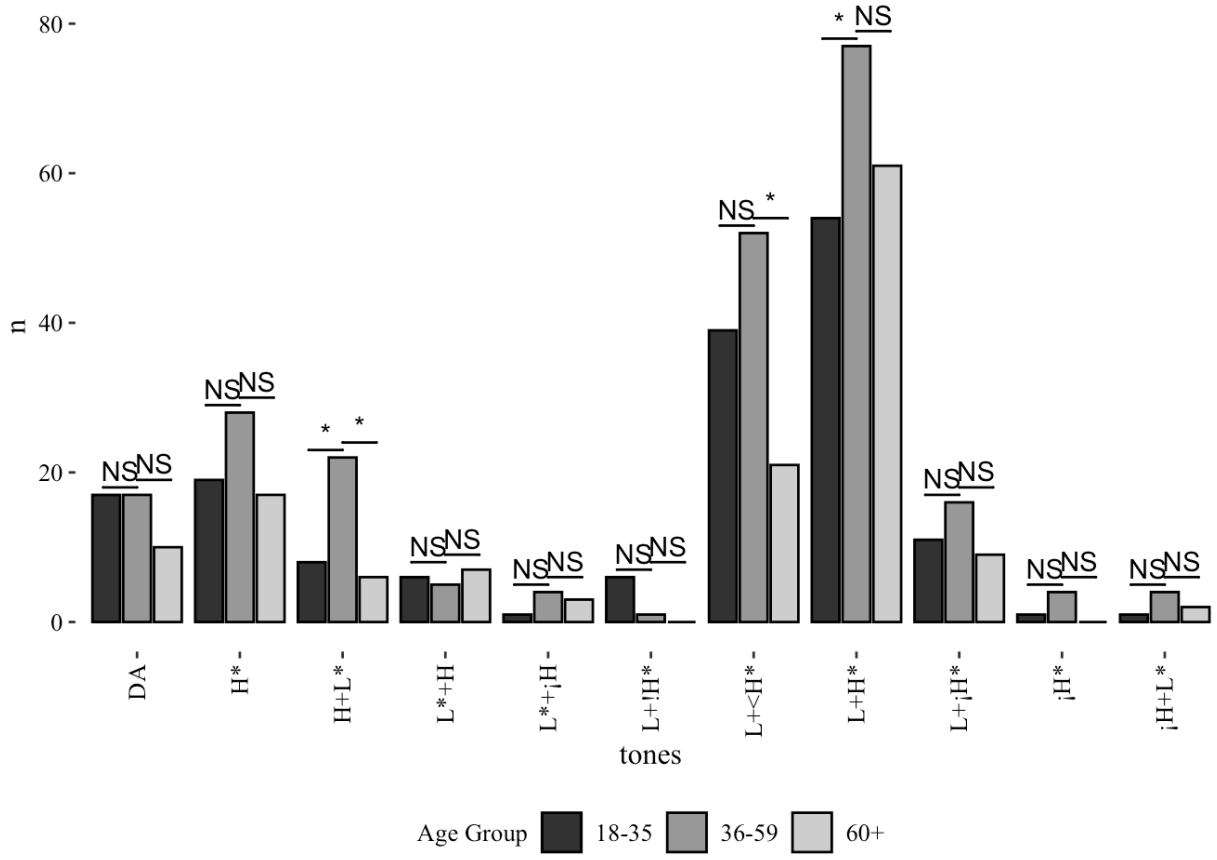


Figure 5.5: Montevideo Non-focalized Prenuclear Pitch Accents by Age

The syntactic distribution of L+<H* versus L+H* in the data suggests that all Montevideo informants, including males and G3 informants, who use L+<H* with lower

frequency, use L+<H* most reliably in specific environments. First, with phrase-initial nominal subject *María* in BFD1, potentially also an effect of topicalization despite the lack of an ip boundary. Second, with *quiero*$_2$ in NFD1. This verb initiates the second ip, placing it in phrase-initial position. It also precedes the focalized PW *naranjas*. By peaking late before a PW under contrastive/corrective focus, marked by peaking early, the speaker increases the contrast and, thereby, the clarity with which the correction is received. Third, with PW *posible que* in NFD4, informants peak late, oscillating between L+<H* and L*+H, the only instance in Montevideo where L*+H is used with any frequency. The word *posible* in NFD4 follows the short aspirated copular verb *es*, most consistently coded H*, and precedes a complementizer phrase *que*, which, prosodically, is inconsistently coded as an ip boundary in the data. Grammatically, NFD4 is an impersonal expression *es posible que…* and as such *es* cannot take a nominal subject and, with low communicative value, is underemphasized. This leaves *posible*, the first communicative loadbearing word of the phrase, practically in phrase-initial position. Elordieta (2003) finds "later alignment of peaks in the final accent in the subject phrase" in Lekeitio Spanish, in Basque Country. This is attributed to the influence of syntactic branching and constituent length on prosodic boundary placement. Spanish prefers (S)VO, such that "[t]he break between the subject and the verb was realized by a continuation rise at the end of the subject, usually accompanied by final lengthening and in a few cases by pauses. There was pitch reset on the verb, with a drop in pitch from the subject of an average of 20 Hz" (Elordieta et al., 2003, p. 3). The potential effects of this position are further discussed in Chapter 6.

Gender and age are significant indicators of intonational variation in prenuclear BFDs. However, in particular syntactic environments, those speakers who would otherwise use L+<H* inconsistently, reserve its use to increase the visibility of a PW, as we saw with BFD2 *María*,

NFD1 *quiero*$_2$, and NFD4 *posible*. The fact that Montevideo females use L+<H* with increased frequency demonstrates that females mark greater intonational contrasts.

5.2.3 NFD Focalized Pitch Accents

Across the six NFD utterances, there are 7 PWs with narrow focus. Each utterance has one, and NFD3, as a categorical declarative, has two. Each of these NFDs employs narrow focus to express different meanings. Nevertheless, as was done with broad focus in the previous sections, Figure 5.6 accounts for all pitch accents used to mark narrow focus across utterances. This data demonstrates that many pitch accents are used to mark narrow focus in Montevideo. The data shows, most importantly, that boundary tone L% is consistently used across all Montevideo NFDs following a focalized PW; very few !H% and only one LH%[56] are used. Since L% in Montevideo accounts for nearly all tokens, it has been removed from Figure 5.6 and subsequent figures to focus on peak alignment. Cases that employ a different boundary tone remain unaltered.

[56] As discussed in Chapter 4, the use of LH% is a valid but unintended interpretation of the phrase.

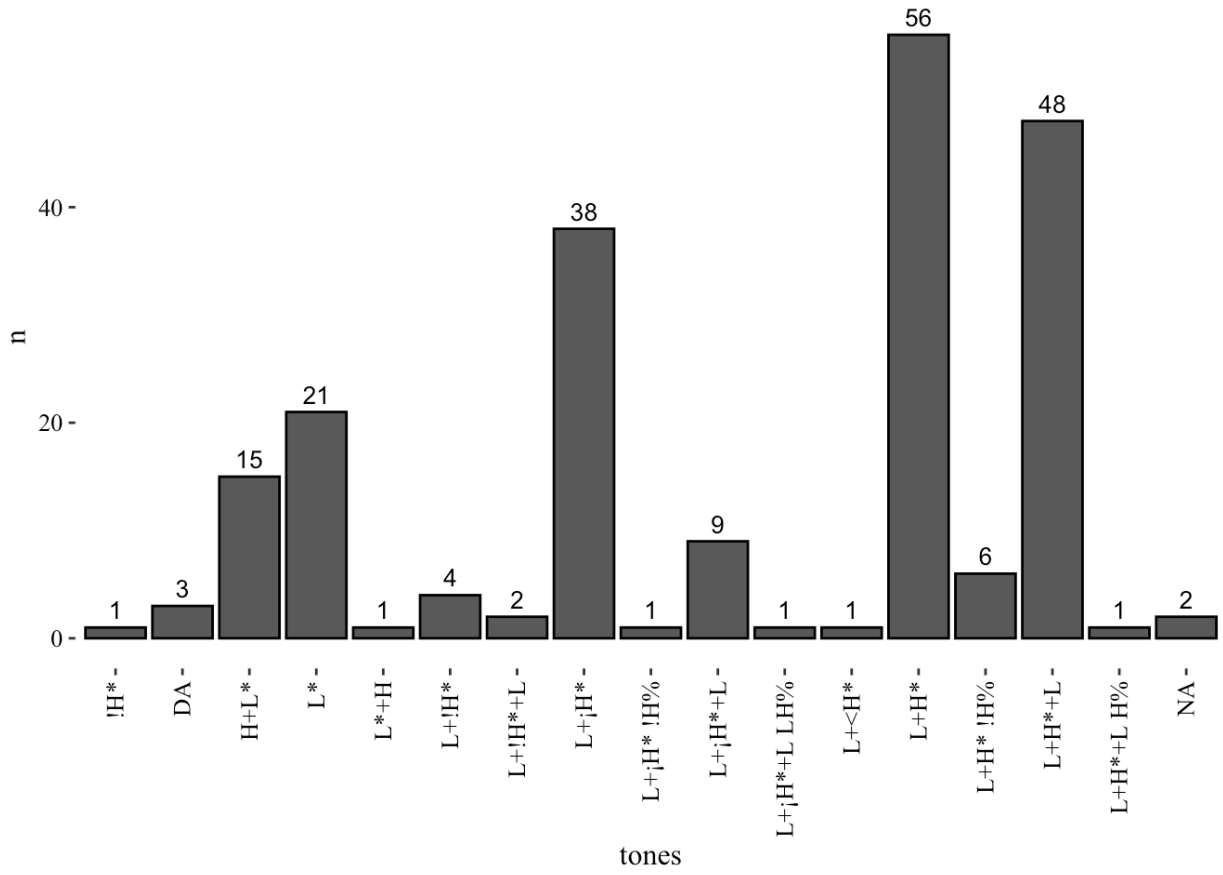


Figure 5.6: Montevideo Nuclear and Prenuclear Focalized NFDs

Figure 5.6 demonstrates that pitch accents L+H* and L+H*+L, and their upstepped counterparts L+¡H* and L+¡H*+L, are the most common pitch accents for marking narrow focus in Montevideo. L* is also common but does not mark narrow focus; instead, it is evidence of either *peak stunting* or an utterance that did not inspire emphasis. H+L*, as will be presented later, does not mark narrow focus either. Figure 5.7 concludes that, overall, females employ tritonal L+H*+L significantly more than males ($p < .05$). This finding suggests that females mark greater intonational contrasts. Age overall was not significant.

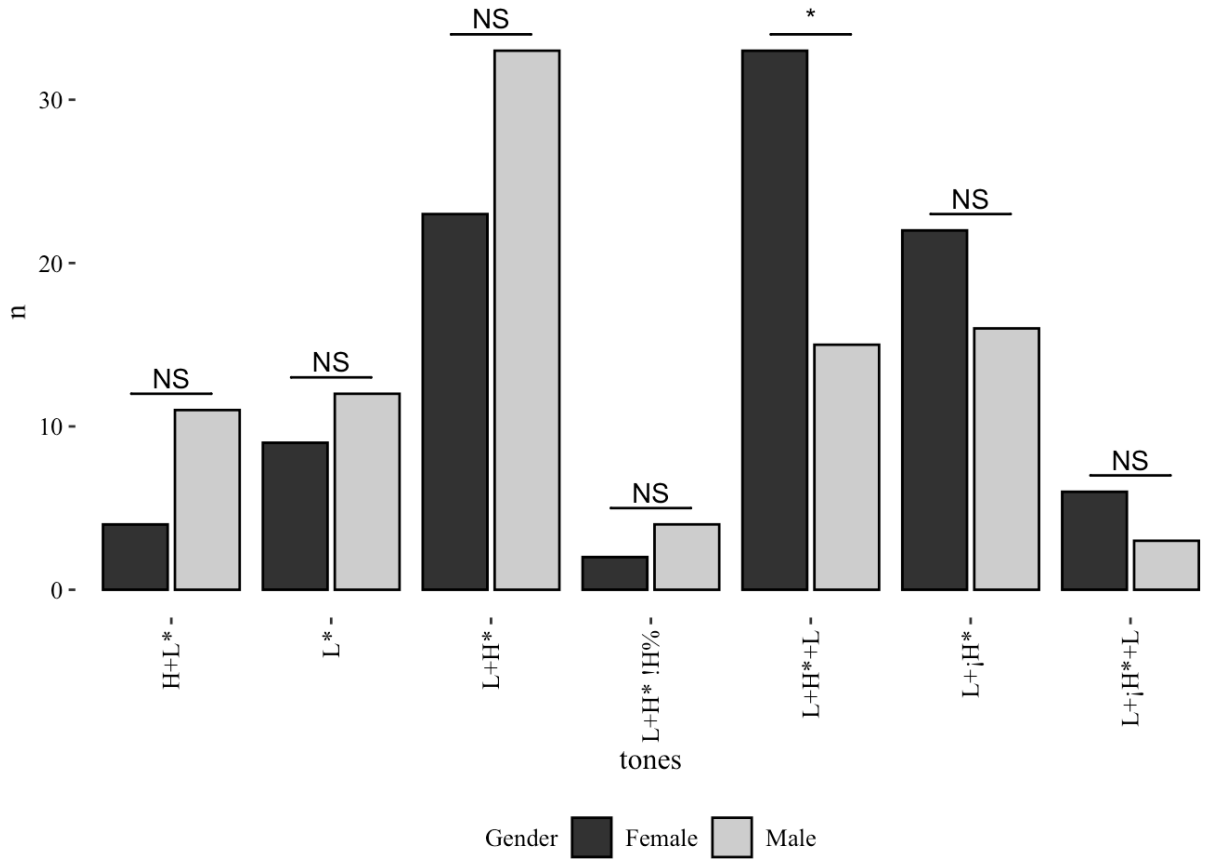


Figure 5.7: Montevideo Nuclear and Prenuclear Focalized NFDs by Gender

To make sense of the pitch accent distribution in Figures 5.6 and 5.7, I examine each NFD individually and discuss the sociolinguistic variation in NFDs. All narrow focus is emphasis; however, depending on the desired interpretation, a speaker uses pitch contours to mark the degree of emphasis required. Since many of these NFDs can be interpreted in different ways, the situation provided in Chapter 4 encouraged each informant to interpret the target phrase a certain way. However, in the end, it is an interpretation that includes the speaker's personality, and some informants exhibited more enthusiasm than others.

5.2.3.1 Contrastive/Corrective Focus: NFD1

NFD1, *¡Senora, no quiero limones, quiero naranjas!*, marks contrastive/corrective focus on the word *naranjas*. Figure 5.8 includes three plots, each trimmed to only include pitch accents

where $n \geq 2$. From left to right, the first plot includes the count per nuclear configuration; the second separates these by gender, and the third by age group. Only L% boundary tones were used in NFD1 and are thereby excluded from subsequent explanations. Of the tokens included in the plots $n = 28$, the tritonal pitch accent L+H*+L ranks 1st, with 10 tokens making up 35.71% of the whole. In 2nd place, bitonal pitch accent L+H* with 6 tokens or 21.42% of the whole. This was ranked second due to the existence of an additional 2 tokens or 7.14% of informants employing the upstepped version L+¡H*. In 3rd place, monotonal pitch accent L* with 7 or 25% of the whole, meaning 25% of informants did not mark contrastive focus on *naranjas*. Some of these are clear cases of *peak stunting*, where the previous peak continues to rise into the following focalized PW, thereby limiting its ability to have its own rising peak.

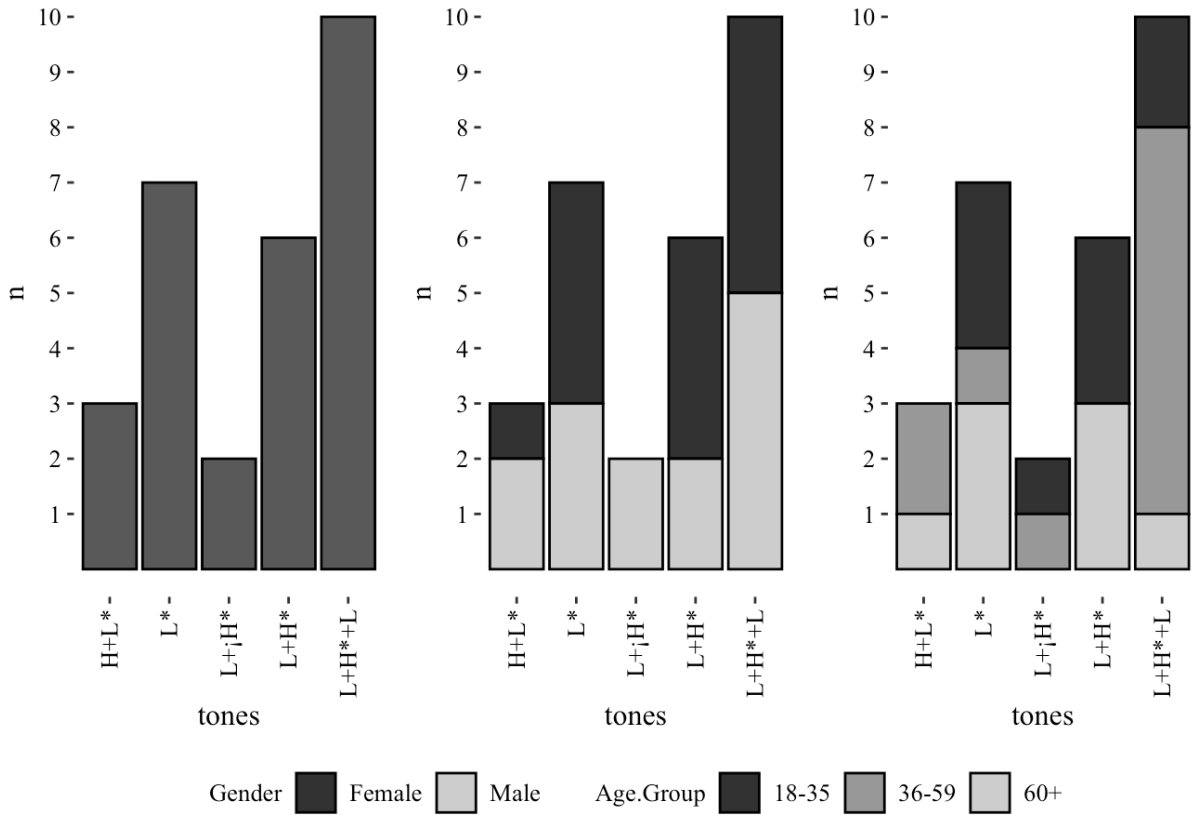


Figure 5.8: Montevideo Contrastive/Corrective Focus NFD1. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. However, the preference by G2 for tritonal L+H*+L is significant[57] ($p < .005$). For transparency, I provide example contours for each of the top three pitch accents employed in NFD1, namely L+H*+L in Figure 5.9, L+H* in Figure 5.10, and L* in Figure 5.11; this final Figure shows peak stunting. Notice the relationship between the peak alignment over *quiero*$_2$ and *naranjas.* While the peak over *quiero* always peaks late, either L+<H* or L*+H, the sooner it falls, the more time *naranjas* has to rise and fall. Thus, in Figure 5.9, we see an earlier fall on *quiero* and, thus, sufficient space to realize a tritonal pitch accent. In Figure 5.10, the fall from *quiero* does not reach a valley until the start of the stressed syllable of *naranjas,* and, thus, there is not enough space to produce a tritonal pitch accent. In Figure 5.11, the use of pitch accent L*+H over *quiero* displaces the peak into the following PW, *naranjas*, such that the focalized peak is stunted.

[57] As noted previously, G2 has 5 more informants than G1 and G3. However, it is also possible that this age group performed the task more energetically, sometimes G1 could be more timid and G3 less energetic.

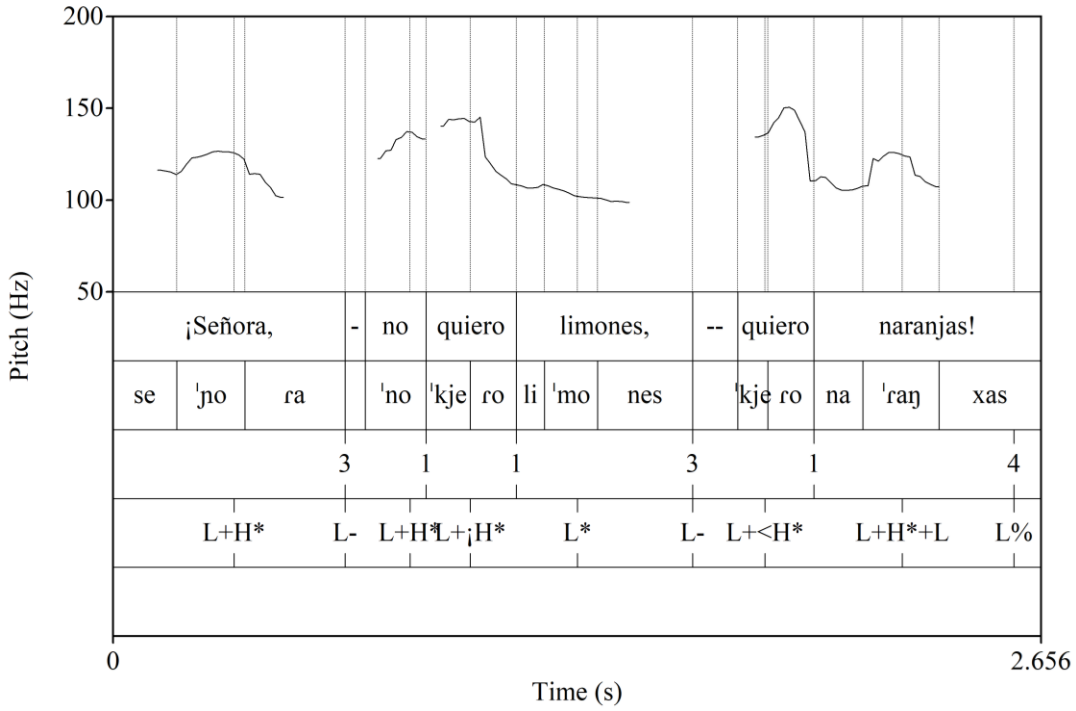


Figure 5.9: NFD1 Marked with Tritonal L+H*+L. MVM31 employs L+H*+L over *naranjas.*

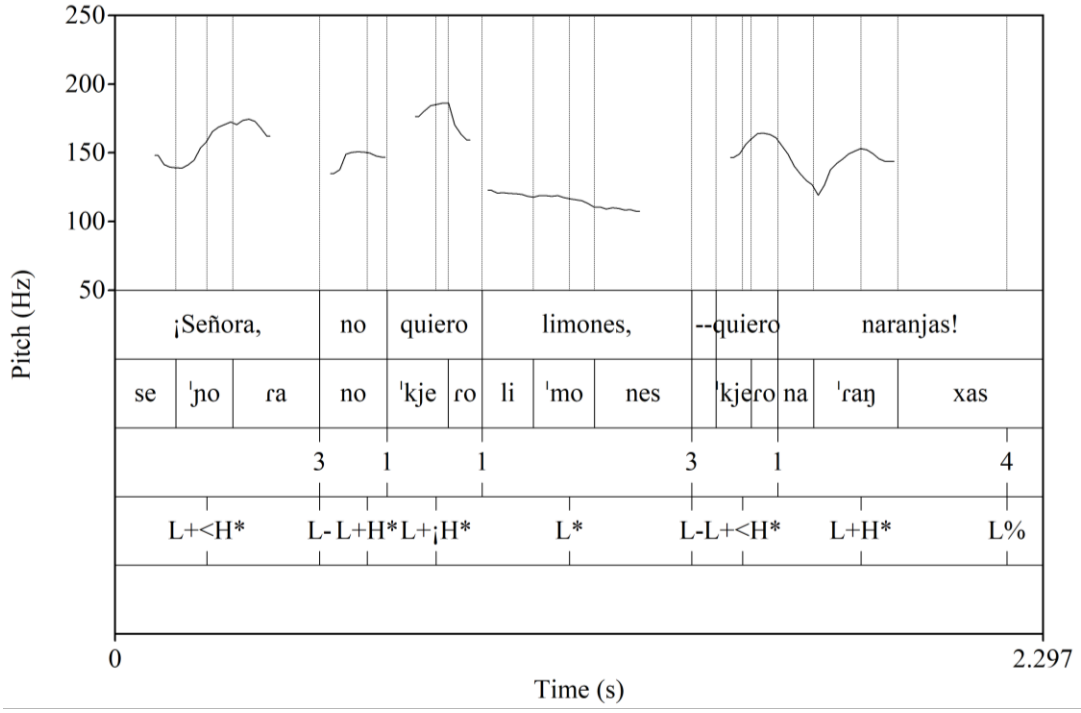


Figure 5.10: NFD1 Marked with Bitonal L+H*. MVM23 employs L+H* over *naranjas.*

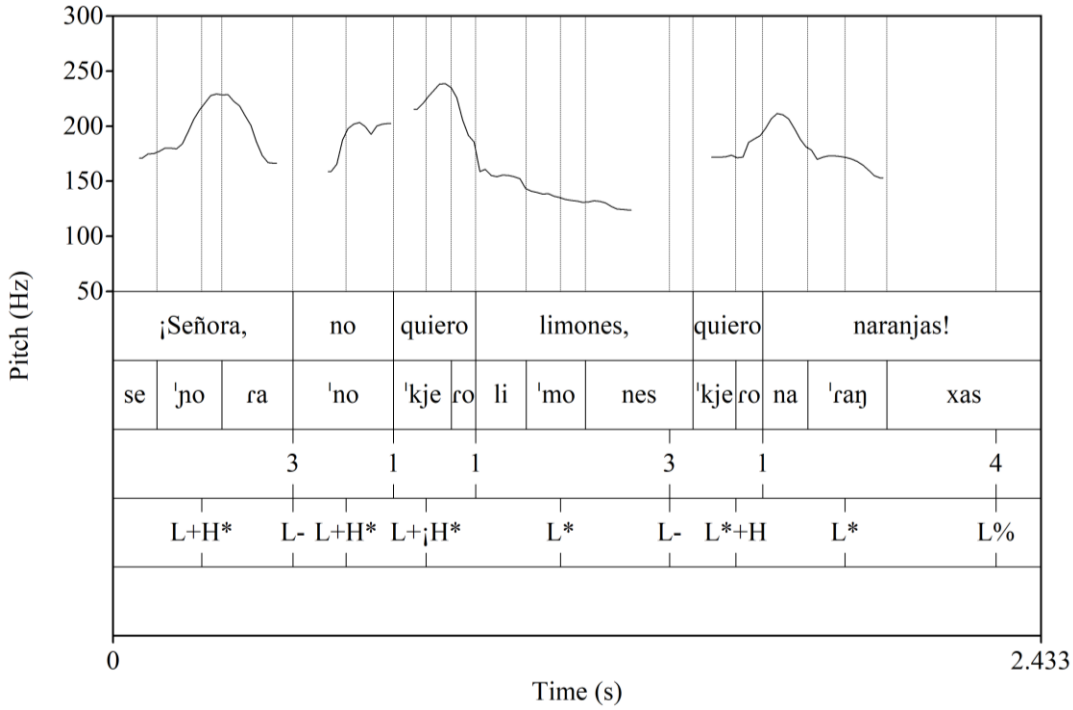


Figure 5.11: NFD1 Marked with Monotonal L*, Example of Peak Stunting. MVF77 employs L* over *naranjas* due to peak stunting.

5.2.3.2 Emphasis: NFD2

NFD2, *¡Qué rico olor a medialunas!,* marks emphasis on the word *medialunas.* Figure 5.12 includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per nuclear configuration; the second separates these by gender, and the third by age group. Only L% boundary tones were used in NFD2 and are thereby excluded from subsequent explanations. Of the tokens included in the plots $n = 27$, the bitonal upstepped pitch accent L+¡H* ranks 1st with 11 tokens, making up 40.74% of the whole. In 2nd place is bitonal pitch accent L+H* with 9 tokens or 33.33% of the whole, the same peak alignment without upstepping. In 3rd place is the upstepped tritonal L+¡H*+L with 4 tokens or 14.81%, making upstepped peaks the most common feature of NFD2 at 55.55% of all tokens. It should also be noted that, by trimming these plots, two regular tritonals go unaccounted for, one

by a G1 male and one by a G2 female. The remaining 3 tokens are L*, suggesting they did not emphasize *medialunas* as expected.

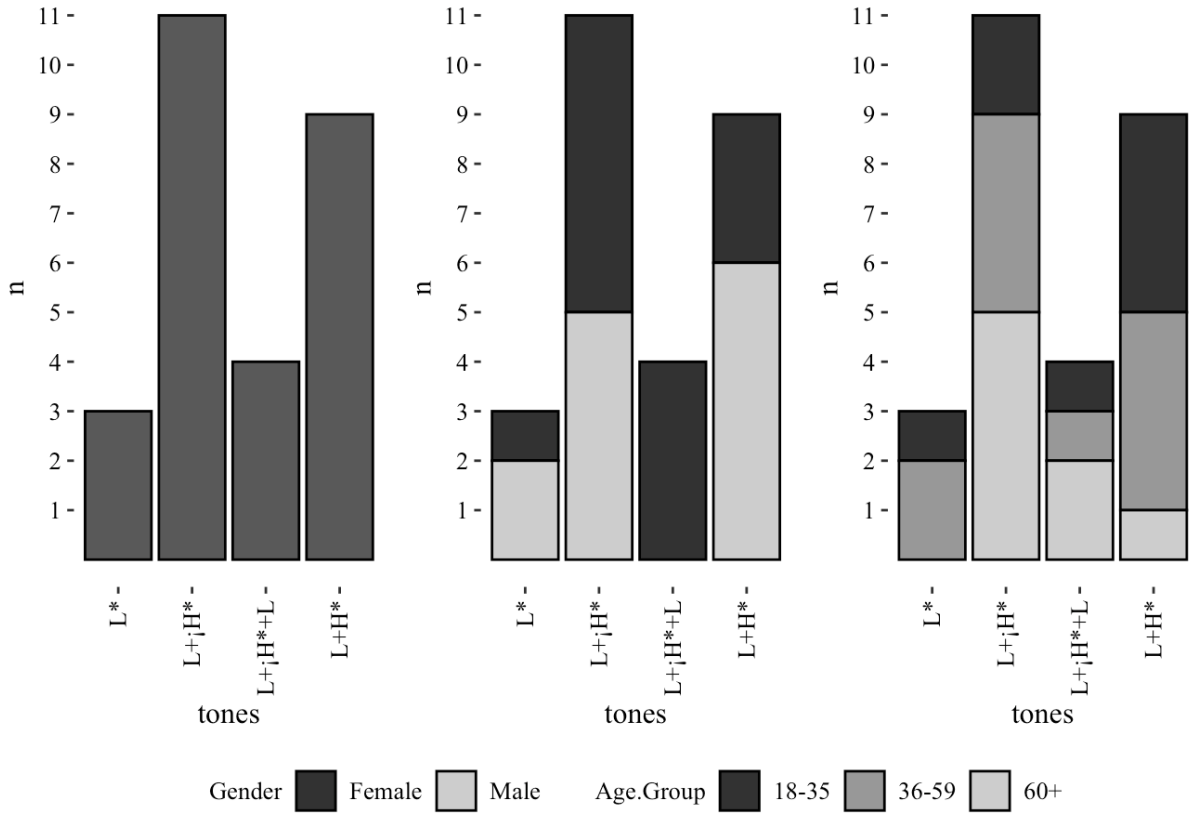


Figure 5.12: Montevideo Emphasis NFD2. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. However, all upstepped tritonal pitch accents were produced by female informants; in fact, 11 of the 15 females upstepped their peaks, compared to only 5 males. This finding is in keeping with the trend that females mark greater intonational contrasts. For transparency, I provide example contours for each of the top three pitch accents employed in NFD2, namely L+¡H* in Figure 5.13, L+H* in Figure 5.14, and L+¡H*+L in Figure 5.15. Figure 5.14 is not coded as tritonal

because the fall is unguided, whereas the fall in Figure 5.15 is guided and therefore qualifies as tritonal, as explained in Chapter 4.

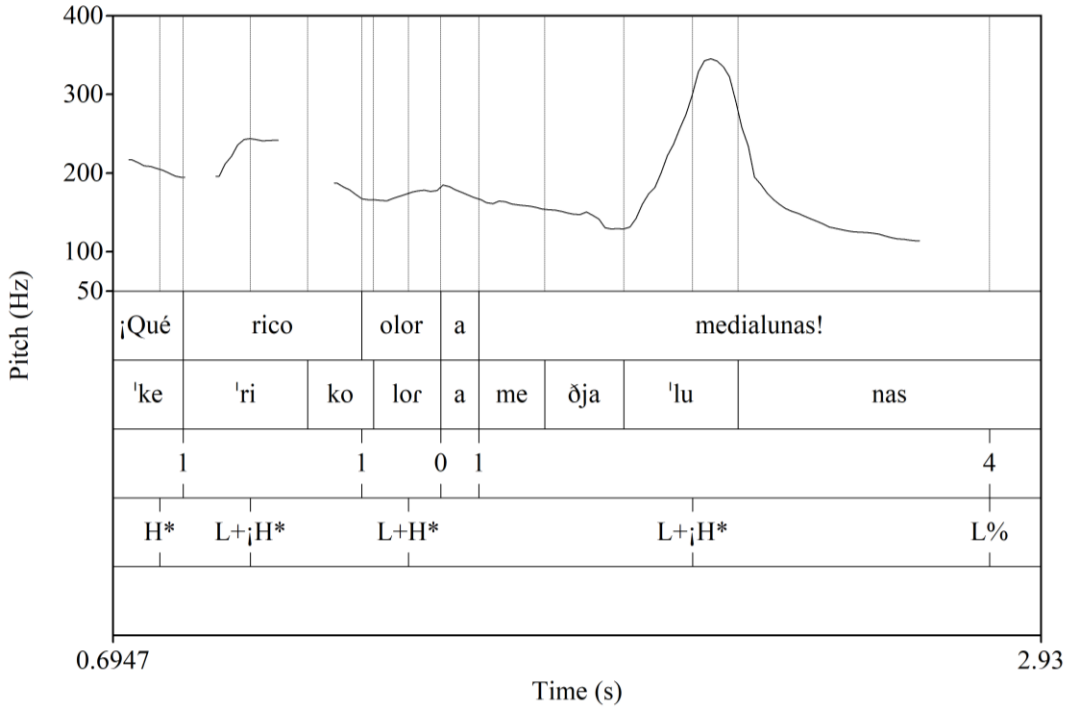


Figure 5.13: NFD2 Marked with Upstepped Bitonal L+¡H*. MVF63 employs L+¡H* over *medialunas.*

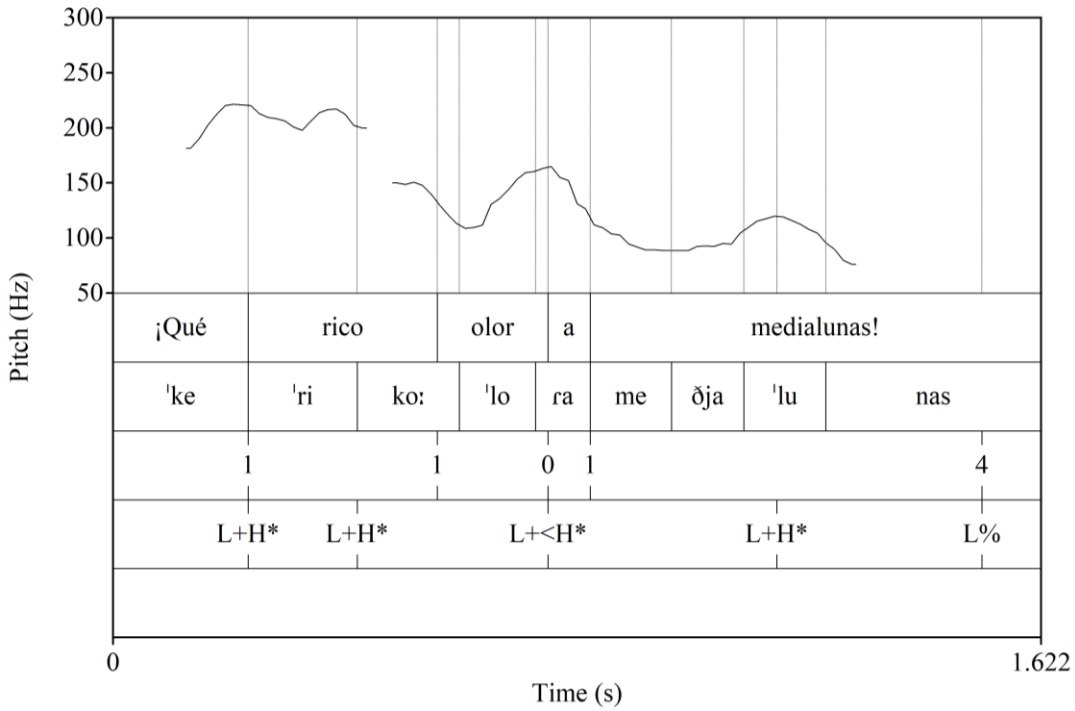


Figure 5.14: NFD2 Marked with Bitonal L+H*. MVM42-2 employs L+H* over *medialunas.*

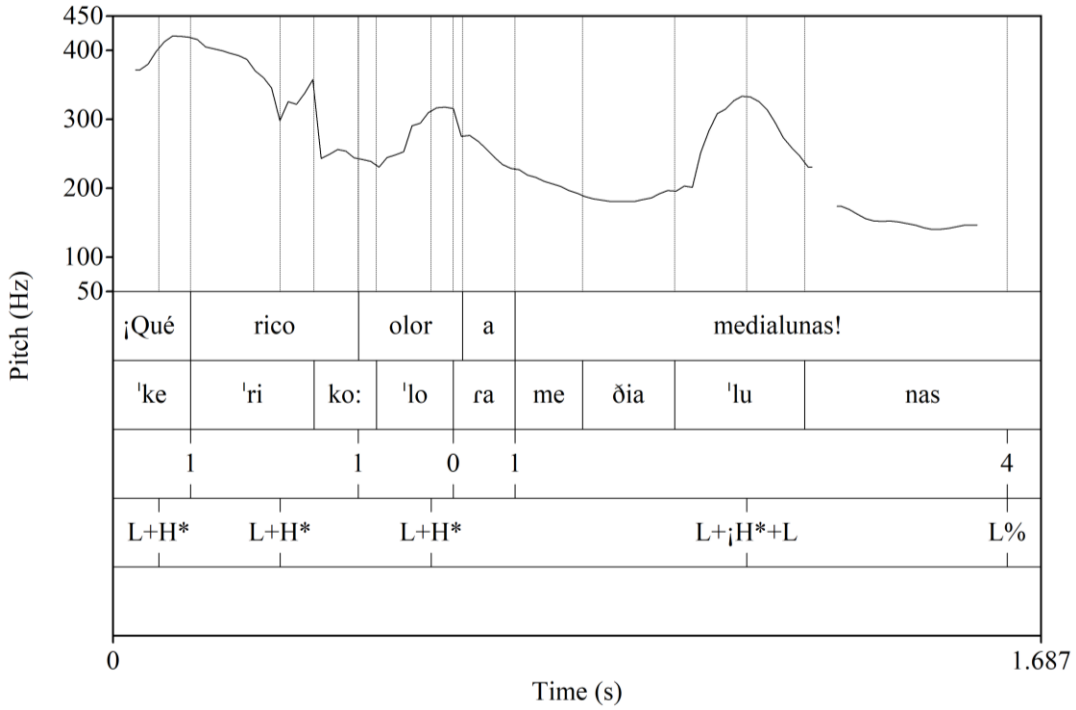


Figure 5.15: NFD2 Marked with Upstepped Tritonal L+¡H*+L. MVF34 employs L+¡H*+L over *medialunas.*

5.2.3.3 Categorical Declarative and Secondary Focus: NFD3

NFD3, *¡No, se van a vivir a San Juan!,* has the intended categorical declarative focus on PW *No,* NFD3a, and a secondary milder corrective focus on PW *a San Juan*, NFD3b. Both PWs are examined here separately. NFD3a is examined first. Figure 5.16 includes three untrimmed plots because $n \geq 2$ for all pitch accents. From left to right, the first plot includes the count per pitch accent; the second separates these by gender, and the third by age group.

Of the tokens included in the plots $n = 30$, the tritonal pitch accent L+H*+L ranks 1st with 16 tokens, making up 53.33% of the whole. Relative peak height is not considered because it is the initial peak of the utterance. In 2nd place is bitonal pitch accent L+H* with 9 tokens or 30% of the whole. In 3rd place is falling pitch accent H+L* with 5 or 16.66%, all by males.

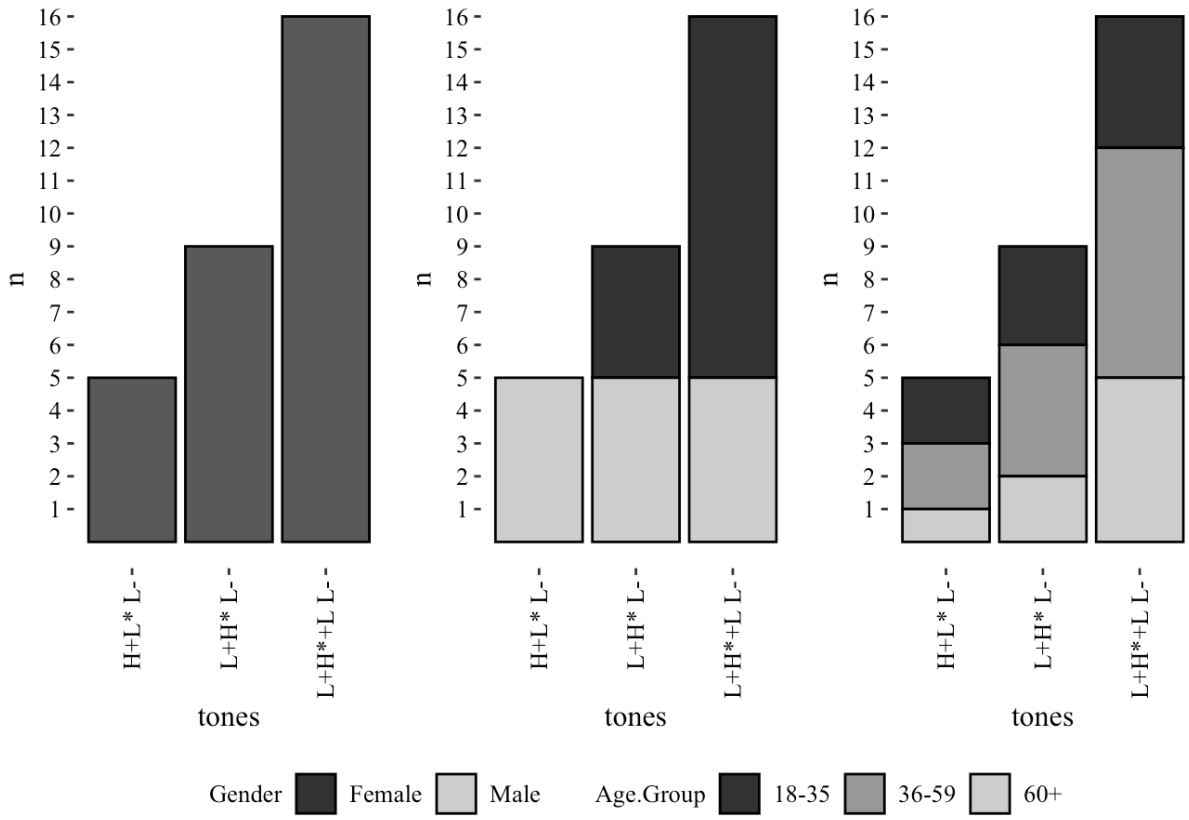


Figure 5.16: Montevideo Categorical Declarative NFD3a. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, yielded statistically significant differences for H+L* ($p < .05$), which was only used by males. This falling pitch accent does not express surprise, it is a calm dispassionate dismissal or correction. These same male informants did not express narrow focus on *a San Juan* either. Males used all three pitch accents equally, whereas 11 of the 15 females preferred the tritonal pitch accent, compared to only 5 males. This finding is in keeping with the trend that females mark greater intonational contrasts. For transparency, I provide example contours for these three pitch accents employed in NFD3a, namely L+H*+L in Figure 5.17, L+H* in Figure 5.18, and H+L* in Figure 5.19.

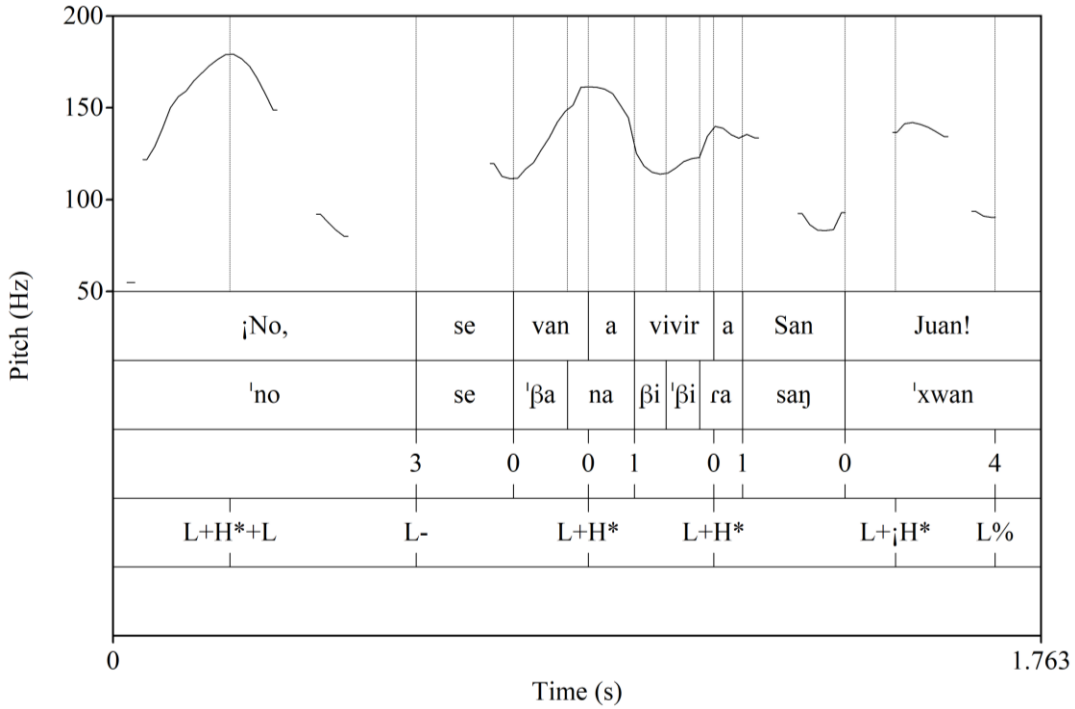


Figure 5.17: NFD3a Marked with Tritonal L+H*+L. MVM37 employs L+H*+L over *No* and L+¡H* L% over *a San Juan*.

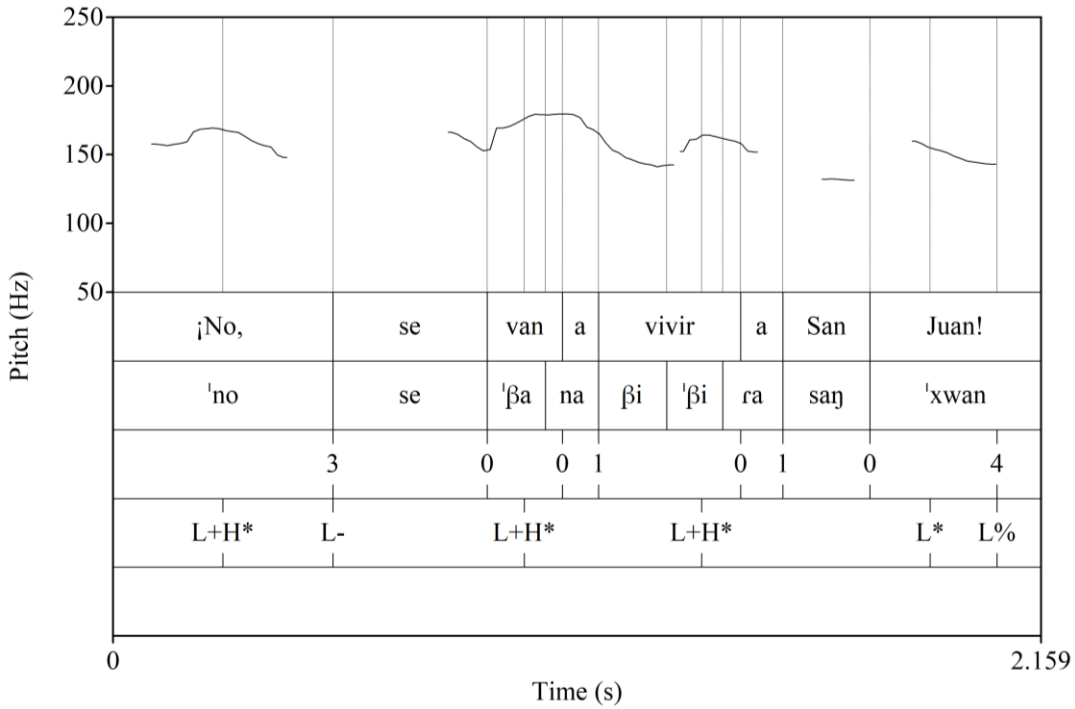


Figure 5.18: NFD3a Marked with Bitonal L+H*. MVF64 employs L+H* over *No* and L* L% over *a San Juan*.

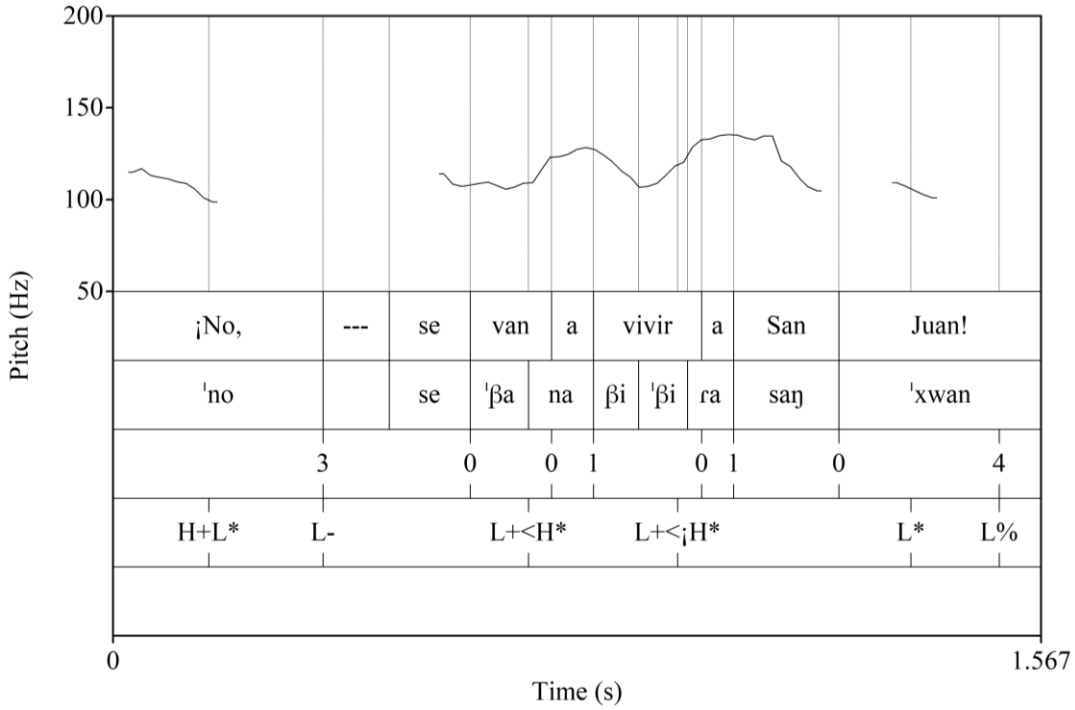


Figure 5.19: NFD3a Marked with Bitonal H+L*. MVM26-2 employs H+L* over *No* and L* L% over *a San Juan*.

As mentioned above, NFD3 has two points of focus. The results for the second focalized PW, NFD3b, *a San Juan*, are illustrated in Figure 5.20, which includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per nuclear configuration, the second separates these by gender and the third by age group. Only L% boundary tones were used in NFD2 and are thereby excluded from subsequent explanations.

Of the tokens included in the plots $n = 28$, the monotonal pitch accent L* ranks 1st with 10 tokens. This means 35.71% did not focalize this PW. In 2nd place is bitonal pitch accent L+H* with 8 tokens or 28.57% of the whole. In 3rd place is falling bitonal H+L* with 6 or 21.42%. Only 4 informants chose to employ the tritonal L+H*+L in this instance, and these same informants also employed the tritonal for NFD3a. The remaining two informants excluded from Figure 5.20 employed pitch accent L+¡H*, as pictured in Figure 5.17 above.

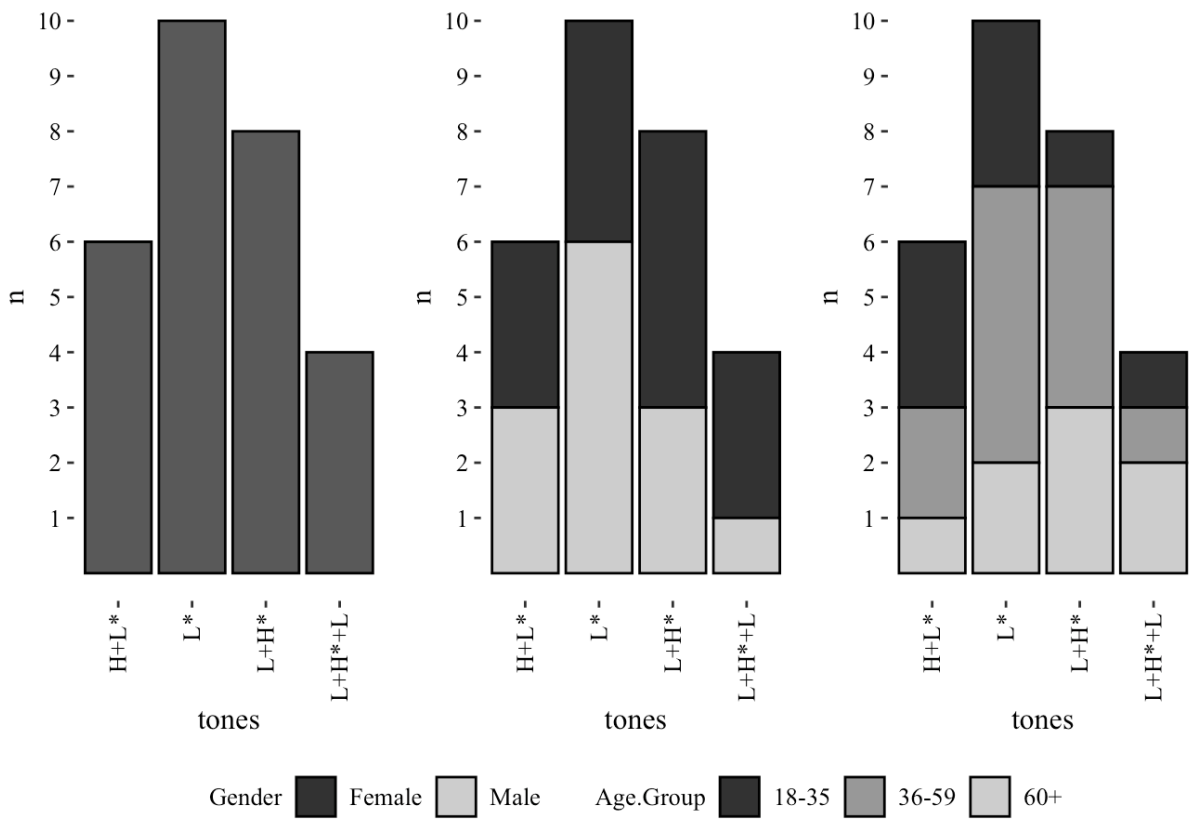


Figure 5.20: Montevideo Secondary Corrective Focus NFD3b. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. However, while few informants chose to undeniably focalize NFD3b with the tritonal pitch accent, 3 of the 4 were produced by female informants. This finding is consistent with the trend that females mark greater intonational contrasts. For transparency, I provide example contours for each of the top three nuclear pitch accents employed in NFD3b, namely L* in Figures 5.18 and 5.19 above, L+H* in Figure 5.21, and H+L* in Figure 5.22.

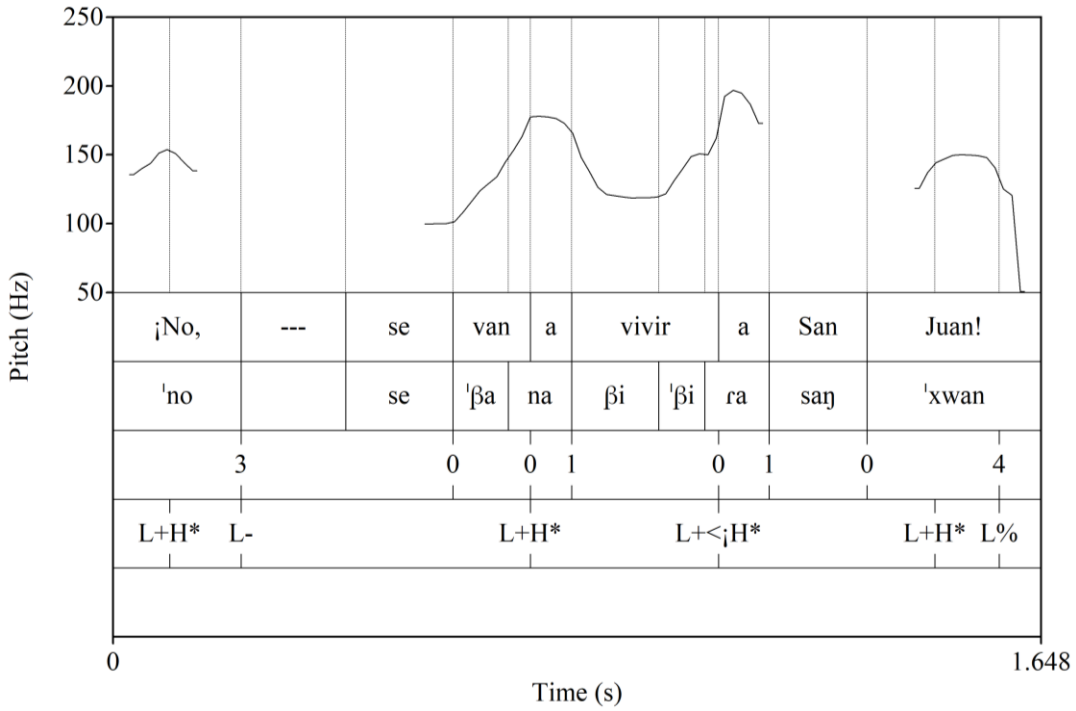


Figure 5.21: NFD3b Marked with Monotonal L+H*. MVM42 employs L+H* over *a San Juan*

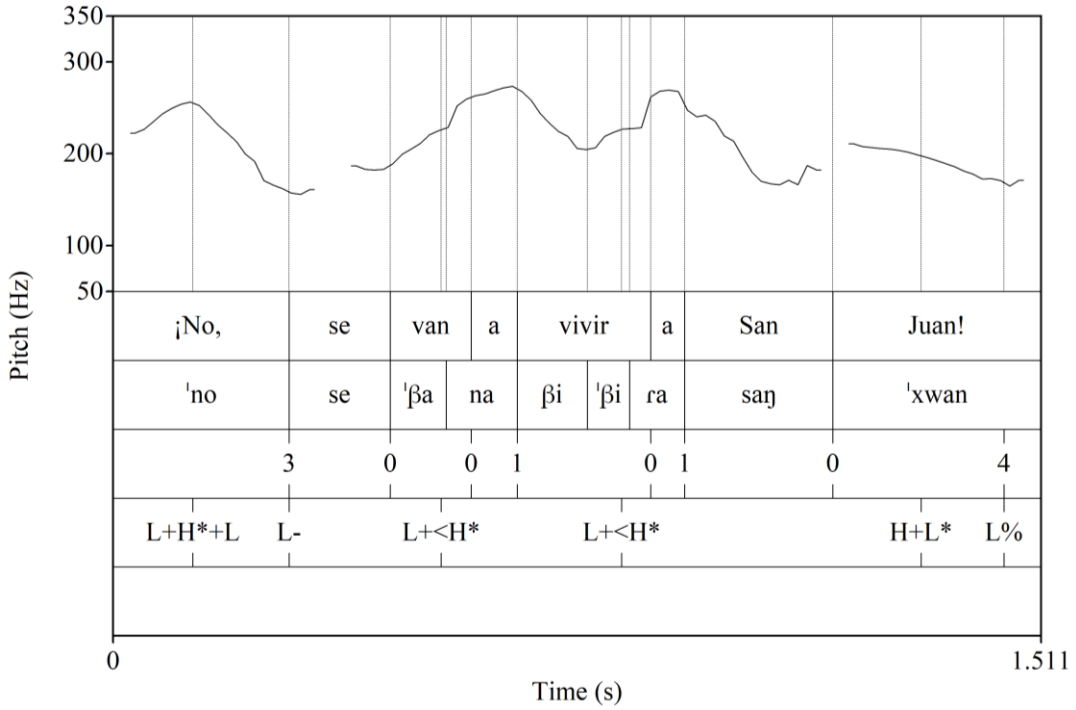


Figure 5.22: NFD3b Marked with Bitonal H+L*. MVF58-2 employs H+L* over *a San Juan*

5.2.3.4 Doubtful Declarative: NFD4

NFD4, *Es posible que no le guste el regalo.* In this doubtful declarative, the word *posible* gets the most attention, as explained in Section 5.2.2, but *posible* is not under narrow focus. Instead, PW *guste* is potentially emphasized, but not to the degree seen in NFD2. Figure 5.23 includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per nuclear configuration, the second separates these by gender, and the third by age group.

Of the tokens included in the plots $n = 24$, the upstepped bitonal pitch accent L+¡H* ranks 1st with 13 tokens or 54.16% of the whole. In 2nd place is bitonal pitch accent L+H* with 6 tokens or 25%. Another 2 informants, or 8.33%, use a downstepped version of the same pitch accent L+!H*. I combine these for a total of 8 tokens or 33.33% in 2nd place. In 3rd place, 3 or 12.5% of informants deaccented this PW. Though trimmed from the plots, 2 informants, one G3 female and one G3 male, employed the tritonal L+H*+L, with the male electing to upstep the tritonal pitch accent.

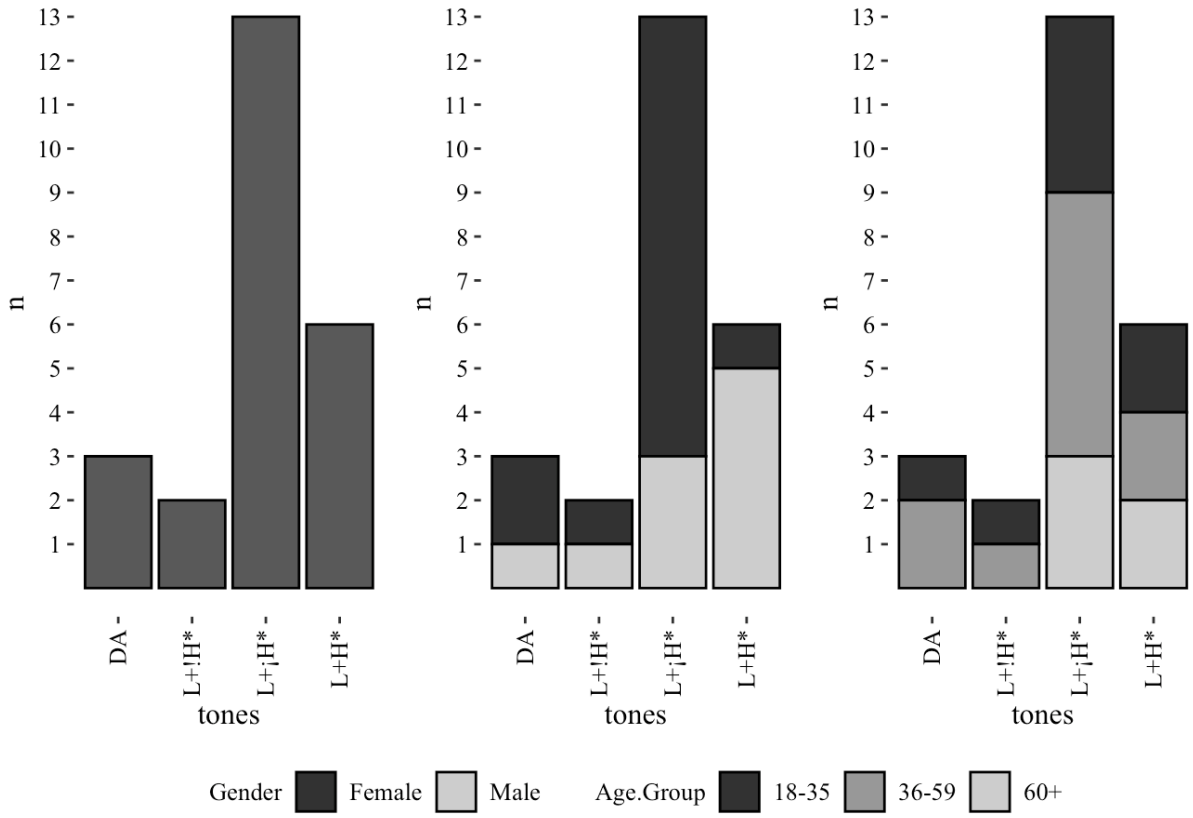


Figure 5.23: Montevideo Doubtful Declarative NFD4. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. However, a second Poisson regression, looking only at female tokens, demonstrates that females significantly preferred the upstepped peak L+¡H* over all other pitch accents ($p < .005$). This finding is in keeping with the trend that females mark greater intonational contrasts. Males were less consistent, but most expressed less focus than the female informants. For transparency, I provide example contours for each of the top two pitch accents employed in NFD4, namely L+¡H* in Figure 5.24, and L+H* in Figure 5.25; the third most common F0 contour was deaccenting, which does not mark narrow focus and is therefore excluded from the

following figures. Figure 5.24 is coded as upstepped because it follows a DA peak. Deaccenting *No* was common, 9 of 30, and the increased contrast helped signal narrow focus. Figure 5.25 was not coded as upstepped despite the preceding deaccented PW due to their similar F0 values and the perceptually less salient peak compared to that of Figure 5.24.

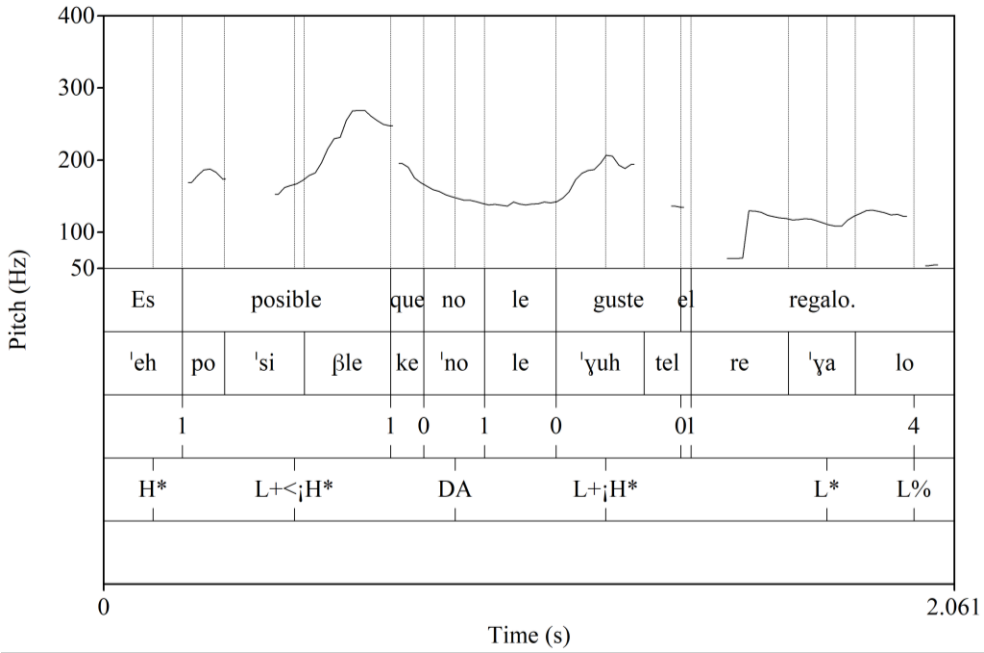


Figure 5.24: NFD4 Marked with Bitonal L+¡H*. MVF76 employs L+¡H* over *guste.*

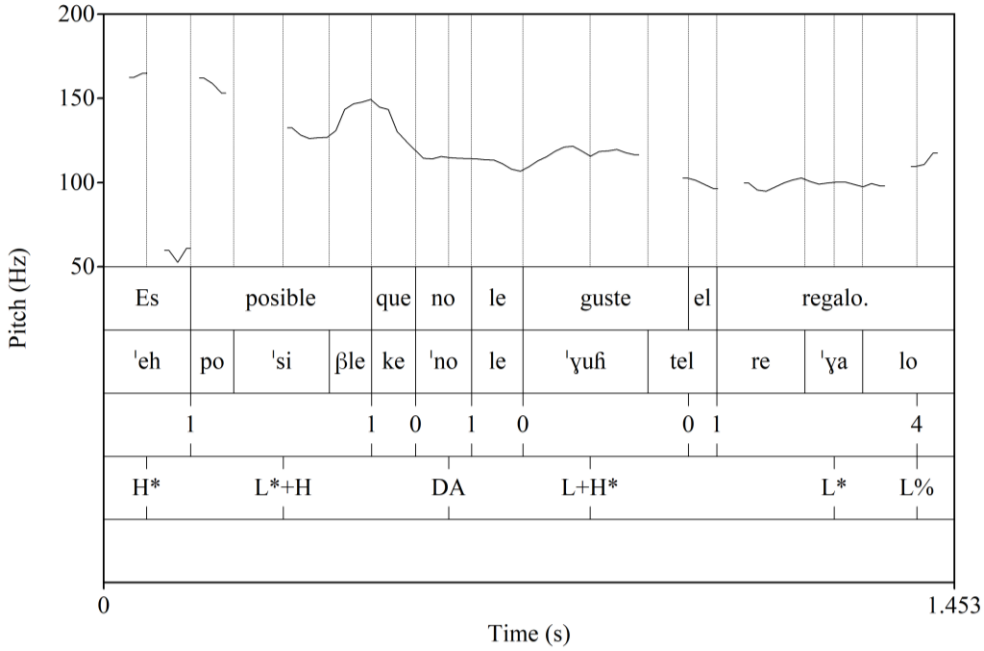


Figure 5.25: NFD4 marked with bitonal L+H*. MVM26-2 employs L+H* over *guste.*

5.2.3.5 Statement of the Obvious: NFD5

NFD5, *¿Con quién va a ser? ¡Con Manuel!,* marks narrow focus on *Manuel* as a statement of the obvious. Figure 5.26 includes three untrimmed plots because $n \geq 2$ for all pitch accents. From left to right, the first plot includes the count per nuclear configuration; the second separates these by gender, and the third by age group. Of the tokens included in the plots $n = 30$, tritonal nuclear configuration L+H*+L L% ranks 1st with 16 tokens or 53.33% of the whole. Relative peak height is not considered because it is the initial peak of the utterance under study. However, the peak height is substantial and would likely be upstepped if part of a larger utterance. In 2nd place is bitonal nuclear configuration L+H* L% with 8 tokens or 26.66%. In 3rd place are the remaining 6 informants, who also employ L+H* but with boundary tone !H%. This final boundary tone indicates that F0 did not fall to a low level but instead plateaued in the middle of the informant's pitch range for this utterance or that the utterance ending cut the fall. This is the only utterance in Montevideo where this IP boundary tone is attested. This distinction will prove significant when comparing Montevideo to Durazno.

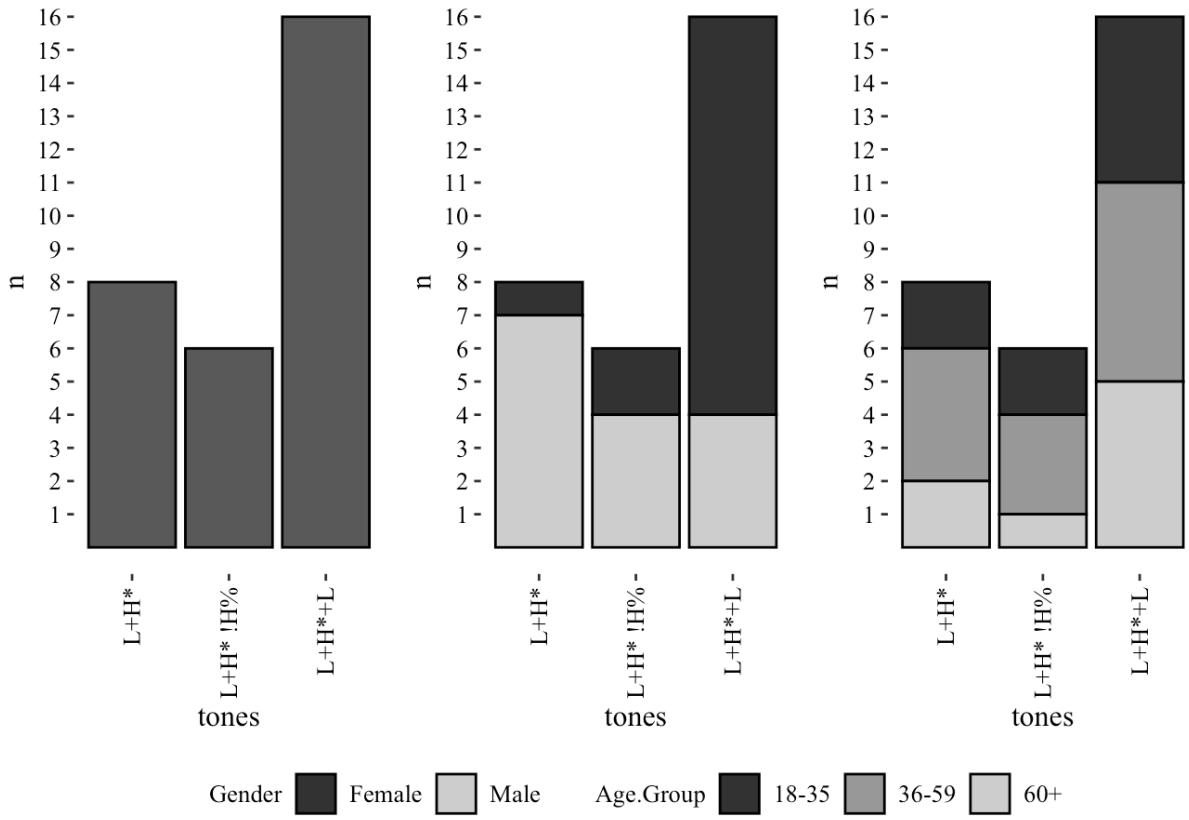


Figure 5.26: Montevideo Statement of the Obvious NFD5. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. However, a second Poisson regression demonstrates that females significantly preferred the tritonal peak L+H*+L over all other pitch accents ($p < .05$). This finding is in keeping with the trend that females mark greater intonational contrasts. Males were less consistent, but most expressed less focus than the female informants. For transparency, I provide example contours for each of the top three nuclear pitch accents employed in NFD5, namely L+H*+L in Figures 5.27, L+H* L% in Figure 5.28, and L+H* !H% in Figure 5.29.

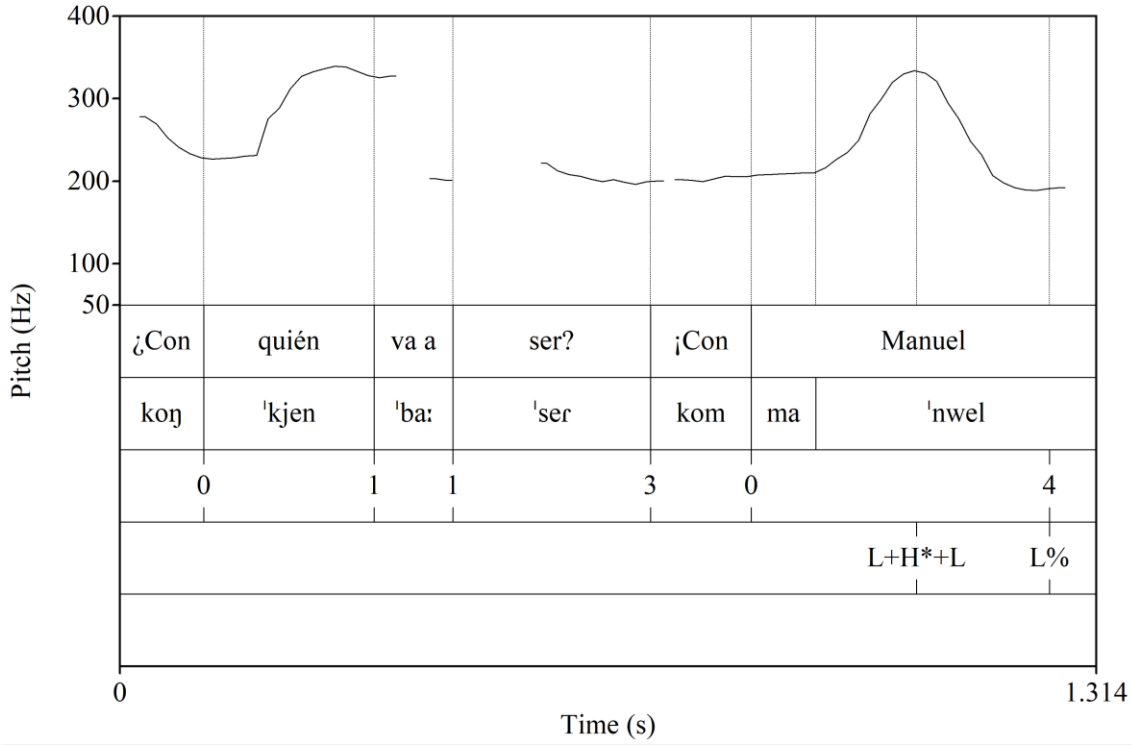


Figure 5.27: NFD5 Marked with Tritonal L+H*+L. MVF20 employs L+H*+L over *Con Manuel*.

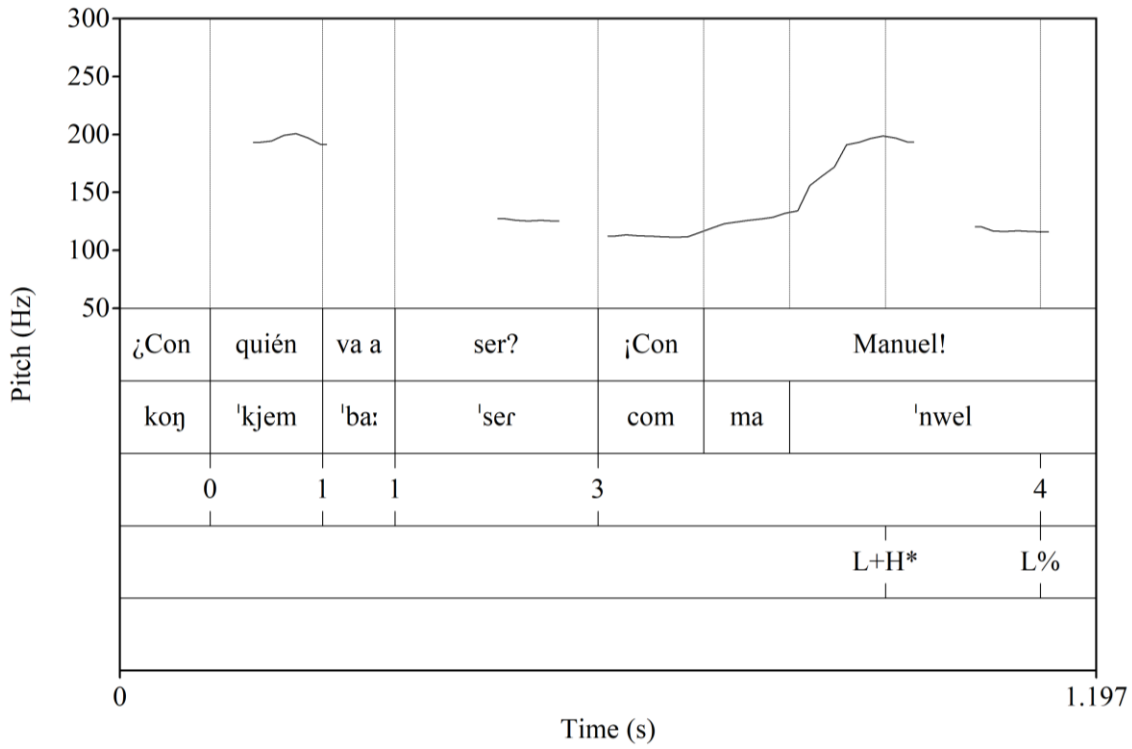


Figure 5.28: NFD5 Marked with Bitonal L+H* L%. MVM44 employs L+H* L% over *Con Manuel*.

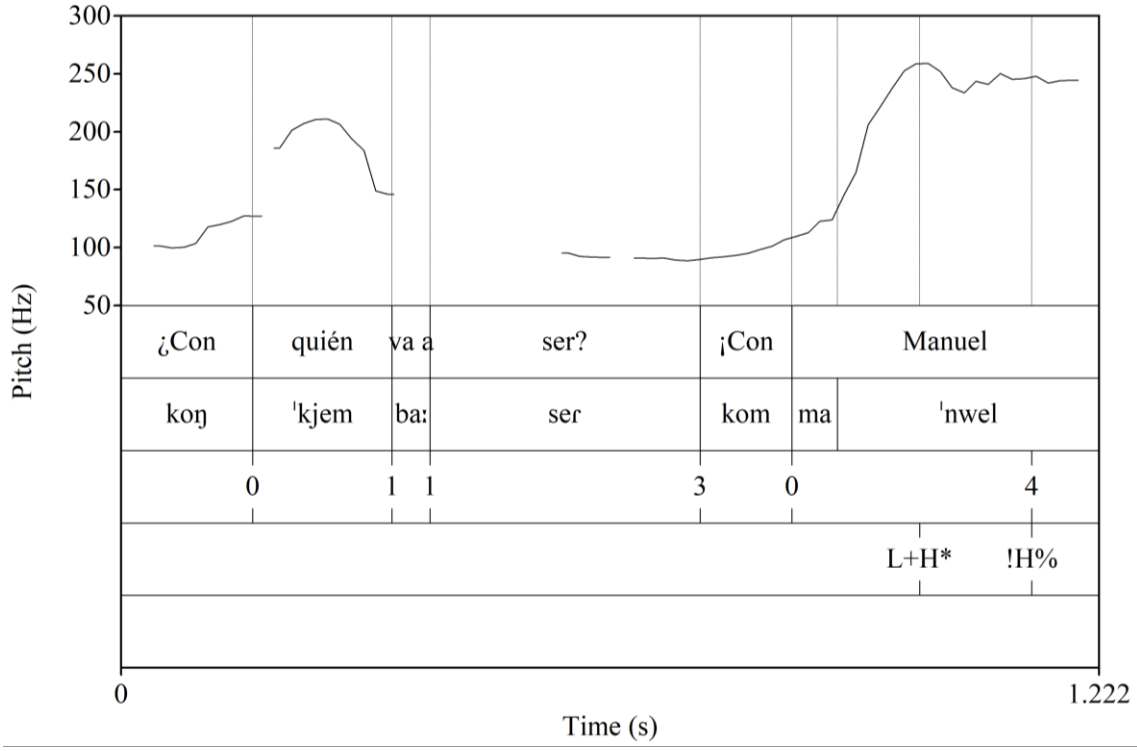


Figure 5.29: NFD5 Marked with Bitonal L+H* !H%. MVM42 employs L+H* !H% over *Con Manuel*.

5.2.3.6 Emphatic Declarative: NFD6

NFD6, *¡Está buenísimo!*, marks narrow focus on *buenísimo* as an emphatic declarative, requiring a type of emphasis. Figure 5.30 includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per nuclear configuration, the second separates these by gender and the third by age group. Only L% boundary tones were used in NFD2 and are thereby excluded from subsequent explanations.

Of the tokens included in the plots $n = 26$, the upstepped bitonal pitch accent L+¡H* ranks 1st with 11 tokens or 42.3% of the whole. In 2nd place is the same peak alignment L+H* without upstepping the peak with 10 tokens or 38.46%. Another 2 informants downstepped the bitonal peak L+!H*, signaling that this peak is much less salient than the standard L+H* peak. Combining these three pitch accents for peak alignment makes up 88.46% of the plotted tokens. In 3rd place is the upstepped tritonal pitch accent L+¡H*+L with 3 tokens or 11.53%.

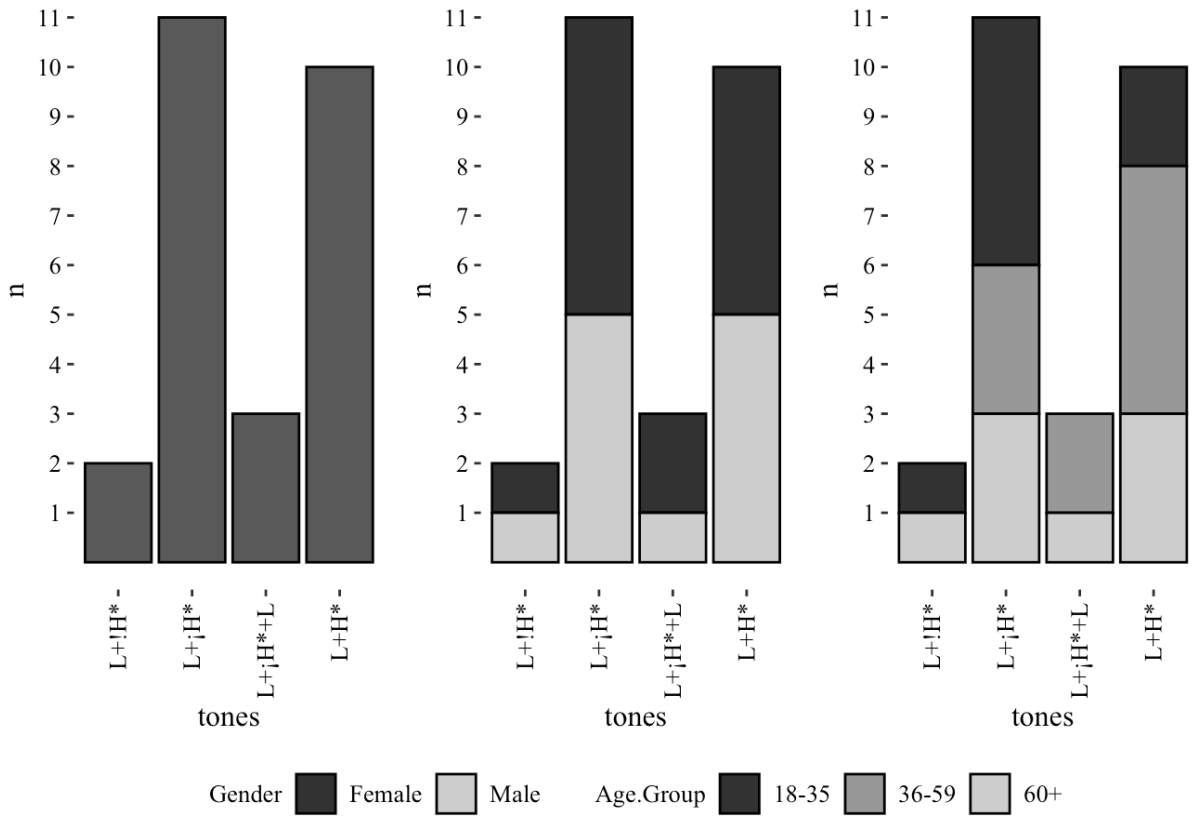


Figure 5.30: Montevideo Exclamative Declarative NFD6. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. For transparency, I provide example contours for each of the top three nuclear pitch accents employed in NFD6, namely L+¡H* in Figure 5.31, L+H* in Figure 5.32, and L+¡H*+L in Figure 5.33.

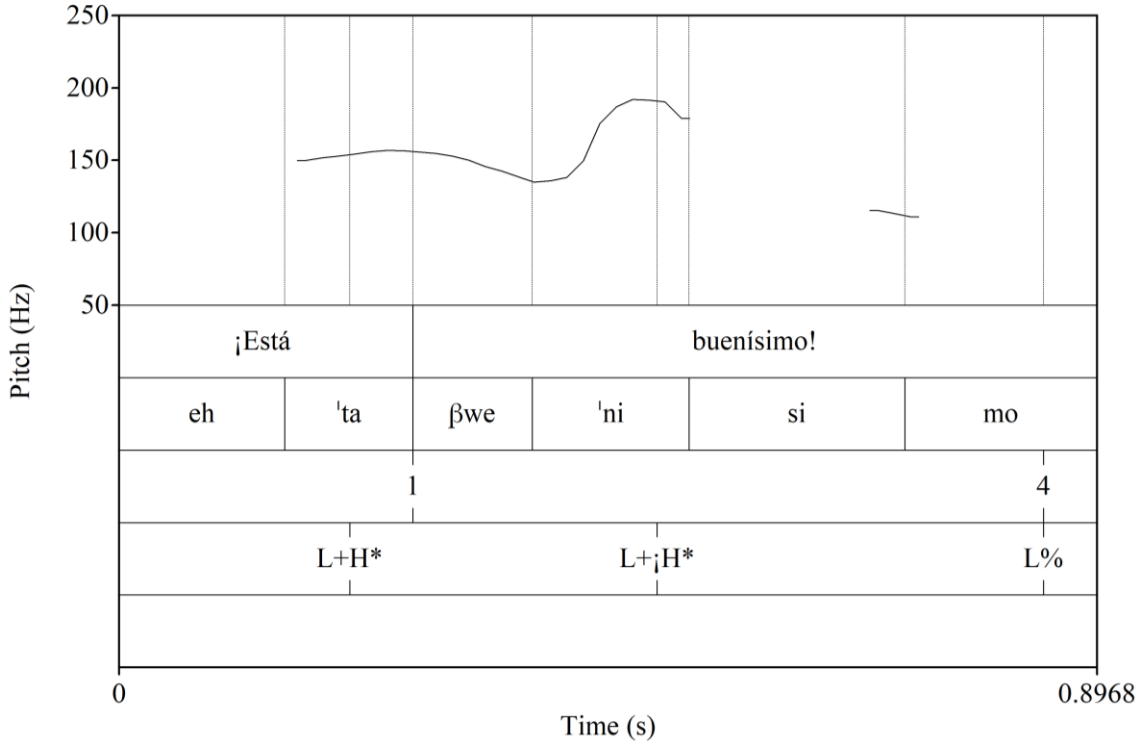


Figure 5.31: NFD6 Marked with Upstepped Bitonal L+¡H*. MVM23 employs L+¡H* over *buen<u>í</u>simo.*

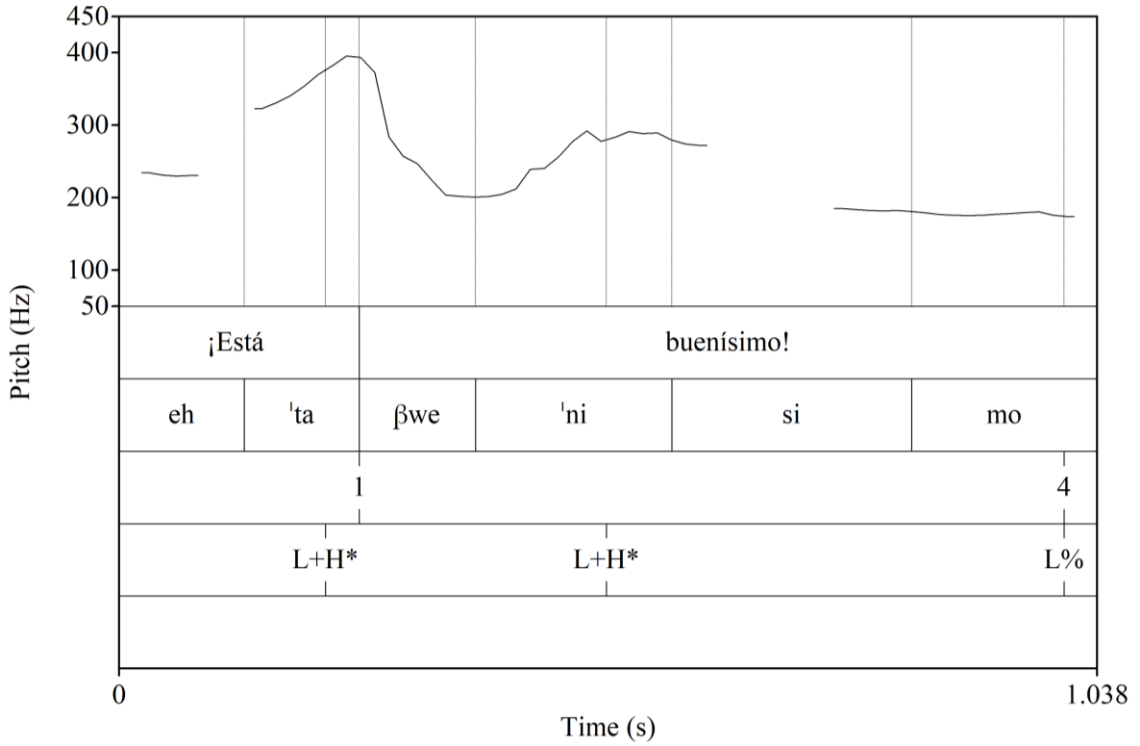


Figure 5.32: NFD6 Marked with Bitonal L+H*. MVF26 employs L+H* over *buen<u>í</u>simo.*

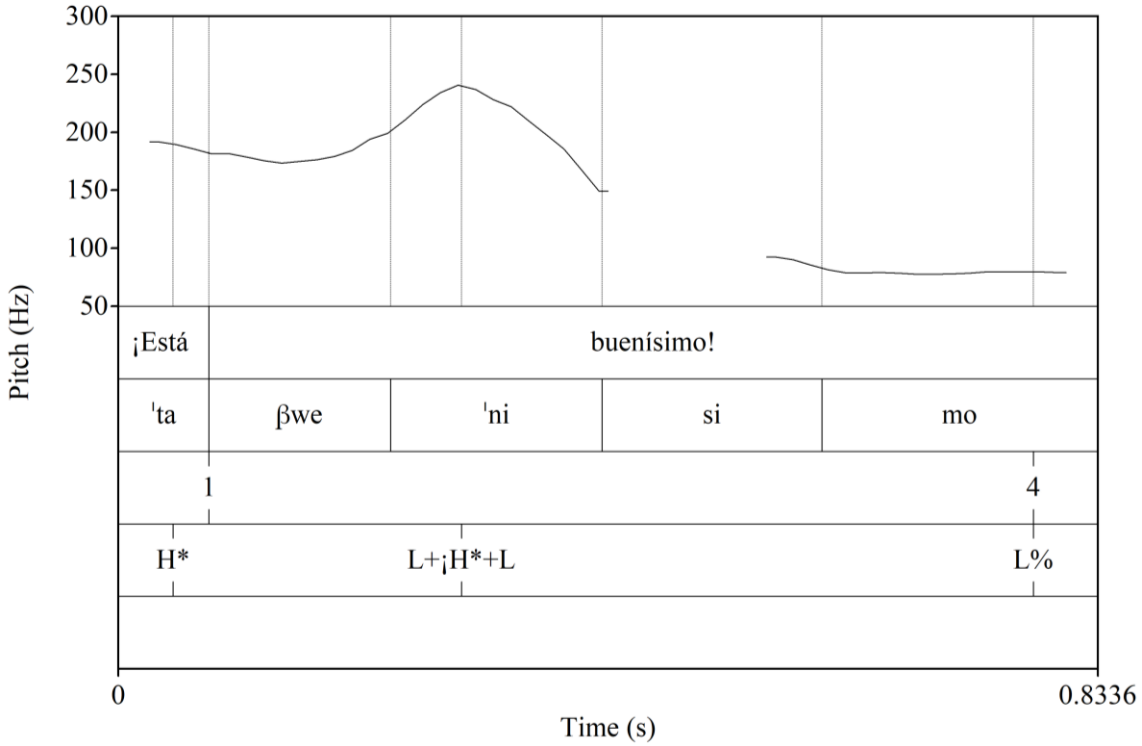


Figure 5.33: NFD6 Marked with Upstepped Tritonal L+¡H*+L. MVM37 employs L+¡H*+L over *buenísimo.*

5.2.3.7 Phonological Comparison of Montevideo Narrow Focus

To summarize the prosodic trends revealed throughout Section 5.2.3, Table 5.1 below lists each NFD and ranks (1st - 3rd place) the frequency with which the top 3 pitch accents were used to mark narrow focus.

Montevideo				
Utterance	**Focus Type**	**1st Place**	**2nd Place**	**3rd Place**
NFD1	Contrastive	L+H*+L	L+H*	L*
NFD2	Emphasis	L+¡H*	L+H*	L+¡H*+L
NFD3a	Categorical Declarative	L+H*+L	L+H*	H+L*
NFD3b	Secondary	L*	L+H*	H+L*
NFD4	Doubtful Declarative	L+¡H*	L+H*	DA
NFD5	Statement of the Obvious	L+H*+L	L+H* L%	L+H* !H%
NFD6	Exclamative Declarative	L+¡H*	L+H*	L+¡H*+L

Table 5.1: Montevideo Narrow Focus Pitch Accent Ranking by Utterance and Focus Type

By comparing the pitch accents in 1st and 2nd place for each utterance, it becomes evident that contrastive/corrective focus, categorical declaratives, and statements of the obvious all employ the same pitch accents. While neat, this is not entirely surprising since, in each, the informant is correcting someone. In NFD1, the informant provides correction by making it clear that they want oranges; in NFD3a, the informant corrects a misinformed friend by categorically stating "no" and then providing the correct information in NFD3b, and in NFD5, the statement is said to correct a friend who seemed not to know information she definitely should have known. Therefore, these statement types belong to a broader category, which I will refer to as *Corrective Focus*. To mark this degree of narrow focus, L+H*+L is employed as the leading pitch accent, signaling the maximum degree of narrow focus, followed by the less enthusiastic L+H*.

It also becomes evident that emphasis, doubtful declaratives, and exclamative declaratives also pattern together. These do not provide correction but instead emphasize a particular PW. Therefore, these statement types belong to a broader category, which I will refer to as *Emphasis*. To mark this degree of narrow focus, the upstepped pitch accent L+¡H* is employed as the leading pitch accent, followed by the less enthusiastic L+H*. That is not to say that emphasis cannot be marked with the tritonal pitch accent because it is attested in 3rd place in NFD2 and NFD6; it is certainly less common in the data and, as such, may represent an exaggeration for the situation provided.

Excluded from both of these categories is NFD3b, which, despite its corrective and emphatic potential, is not the main focalized element of the utterance and is, therefore, inconsistently focalized. Focalized PWs in such an environment belong to a broader category, which I will refer to as *Secondary*. Secondary focalization is optional. In the data, L* was predominantly employed, meaning that narrow focus was not marked, followed by L+H*,

which in this case would have provided greater visibility to this PW. However, these were not upstepped to signal clear emphasis. The utterances are thus reclassified in Table 5.2 to illustrate these broader narrow focus patterns.

Montevideo				
Utterance	**Focus Category**	**1st Place (44.55%)**	**2nd Place (29%)**	**3rd Place (17.61%)**
NFD1	Corrective	L+H*+L	L+H*	L*
NFD2	Emphasis	L+¡H*	L+H*	L+¡H*+L
NFD3a	Corrective	L+H*+L	L+H*	H+L*
NFD3b	Secondary	L*	L+H*	H+L*
NFD4	Emphasis	L+¡H*	L+H*	DA
NFD5	Corrective	L+H*+L	L+H* L%	L+H* !H%
NFD6	Emphasis	L+¡H*	L+H*	L+¡H*+L

Table 5.2: Recategorization of Montevideo NFDs into Broader Categories

Horizontal peak alignment (i.e., early vs late peaking) and vertical peak alignment (i.e., upstepping vs downstepping) are used in this variety to mark focus. As the data demonstrates, the earliest peaks are, therefore, under maximum narrow focus (e.g., L+H*+L), marking the largest intonational contrasts compared to BFDs. Increased peak height in this variety also provides additional salience. Upstepping is used to denote clear, narrow focus, but it is less extreme than early peaking. These data demonstrate, defined by pitch accent frequency and intended meaning, that narrow focus is on a spectrum, where pitch accent L+H*+L represents maximum focalization and L* and DA represents a clear absence of narrow focus. The narrow focus spectrum for Montevideo is thus defined in Table 5.3.

Clear Correction	**Clear Emphasis**	**Mild Correction / Emphasis**	**Dismissive Correction / Non-focalized**	**Non-focalized**
L+H*+L	L+¡H*	L+H*	H+L*	L* / DA

Table 5.3: Narrow Focus Spectrum

Another curious commonality across these utterances is that L+H*[58] (without an upstep) is a viable 2nd place pitch accent option for corrective, emphatic, and secondary focus, though only making up 29% of the pitch accents used to mark narrow focus. This finding suggests that this percentage of informants spoke less emphatically than the top 45% whose pitch accents rank in 1st place. The bottom 17.61% either exaggerated or did not mark narrow focus. Table 5.4 illustrates the count and percentage of pitch accents included in each rank, as well as illustrates that females produced 62.06% of 1st place pitch accents whereas males produced 60.34% of 2nd place pitch accents, with 3rd place pitch accents balanced 50/50. This distribution means that females declared corrective and emphatic focus more clearly than males, especially in NFD3a, NFD4, and NFD5. This finding is in keeping with the trend that females mark greater intonational contrasts. These three choices account for 91.68% of the plotted narrow focus pitch accents in Section 5.2.3.

Montevideo								
Utterance	**Focus Category**	**1st Place**		**2nd Place**		**3rd Place**		**Total**
Gender		**F**	**M**	**F**	**M**	**F**	**M**	**_ / total**
NFD1	Corrective	5	5	4	4	4	3	25/28
NFD2	Emphasis	6	5	3	6	4	0	24/27
NFD3a	Corrective	11	5	4	5	0	5	30/30
NFD3b	Secondary	4	6	5	3	3	3	24/28
NFD4	Emphasis	10	3	1	5	2	1	22/24
NFD5	Corrective	12	4	1	7	2	4	30/30
NFD6	Emphasis	6	5	5	5	2	1	24/26
Gender Totals		54	33	23	35	17	17	**179**
		62.06%	37.93%	39.65%	60.34%	50%	50%	
Grand Total		**87 (45.07%)**		**58 (29%)**		**34 (17.61%)**		**179/193 (91.68%)**

Table 5.4 Focalized Pitch Accent Ranking by Utterance and Gender

[58] As noted in Chapter 4, in cases where L+H* is used to mark narrow focus, F0 peaks within the stressed syllable rather than at the right syllable boundary. Perception work is needed to determine at what point speakers perceive L+H* as narrow focus over broad focus in Montevideo Spanish. Factors could include a nuanced peak alignment, differences in duration or intensity.

5.3 Phonological Results for Durazno

5.3.1 BFD Nuclear Configurations

For the 20 Durazno informants analyzed, 60 BFD nuclear pitch accents were produced, coded, and analyzed. Figure 5.34 provides a count of each nuclear configuration (i.e., pitch accent and IP boundary tone).

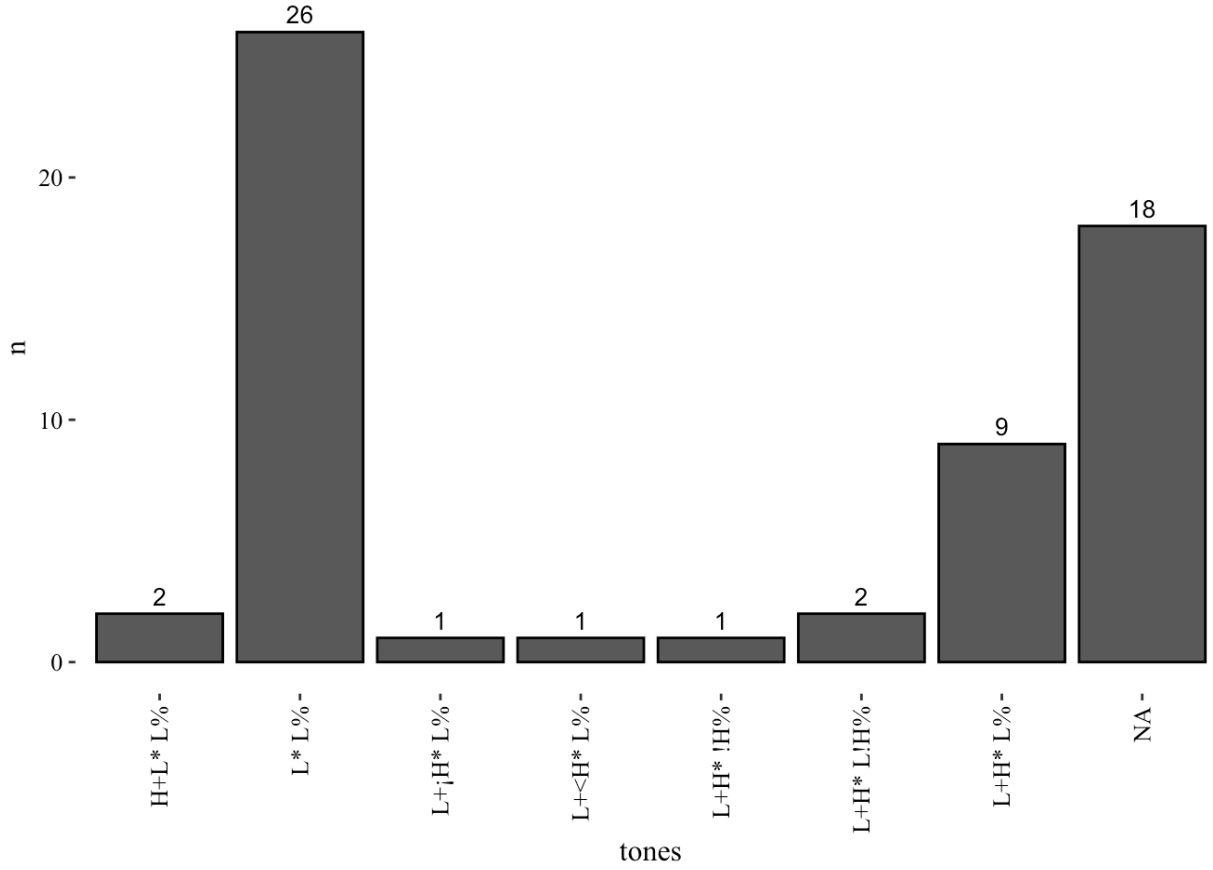


Figure 5.34: Durazno BFD Nuclear Configurations

A Poisson regression was run where the dependent variable was *n* (number of occurrences), and the independent variable was tone. Only the two most frequent nuclear configurations, L* L%, and L+H* L%, were included. The model revealed a significant difference between these two levels ($p < .05$). However, due to the high number of NA tokens, it is difficult to know how the data would have varied had these tokens been viable, though trends

suggest they would have reinforced the current pattern. The high number of NAs in the Durazno data is included to show that these informants, as discussed in Chapter 4, initially struggled with the Discourse Completion Task (DCT). The breakdown of NA by utterance is as follows: BFD1 *n* = 9, BFD2 *n* = 4, and BFD3 *n* = 5. These NA tokens are grouped in the 'other' category in Figure 5.35. Despite the high number of NA in the BFD data, the increased number of L* is due, in part, to the sentence structure. Due to downstepping, the further from the start of the utterance, the lower the nuclear pitch accent. In BFD1, being a one-word sentence, *mandarinas*, shows the greatest variation in pitch accent. In BFD2, being a multiple-word sentence, *María está comiendo mandarinas*, L* L% is more common. In BFD4, a multiple-word sentence with a peripheral prepositional phrase *Yo viví muchos años, en San Juan*, the nuclear configuration L* L% is nearly unanimous, as pictured in Figure 5.35.

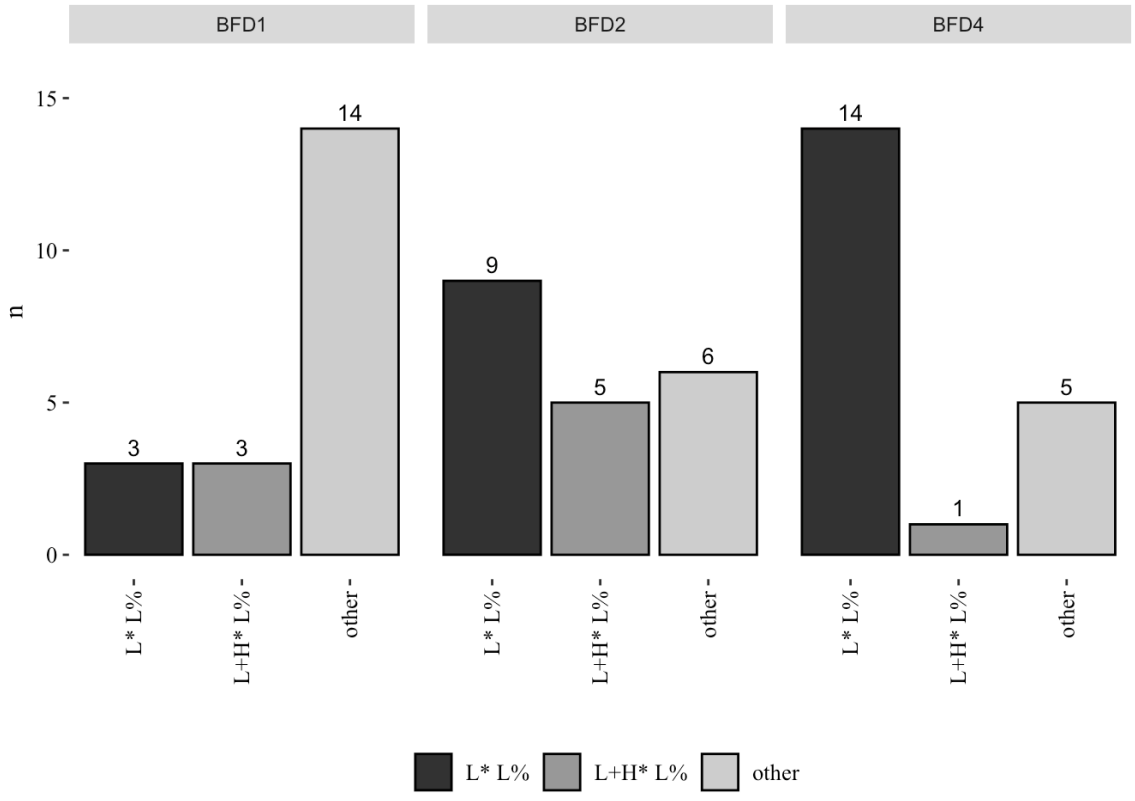


Figure 5.35: Durazno BFD Nuclear Configurations by Utterance

Figure 5.35 clearly shows that the growing preference for L* over L+H* is due to sentence structure. There were no significant differences by gender or age in nuclear position in Durazno BFDs.

5.3.2 BFD and Non-focalized NFD Prenuclear Pitch Accents

Due to the limited number of BFDs, this section considers all prenuclear, pre-focal, non-focalized PWs in the NFD utterances to have broad focus. This choice is substantiated by the informants' use of the same pitch accents in this position as employed in BFDs. 7 of the 9 utterances consist of one or more broad-focus PWs. Between BFDs and NFDs, there are 21 prenuclear broad-focus / pre-focal PWs (henceforth Non-focalized Prenuclear PWs), making 420 tokens across the Durazno informants. Figure 5.36 presents the count of each prenuclear pitch accent.

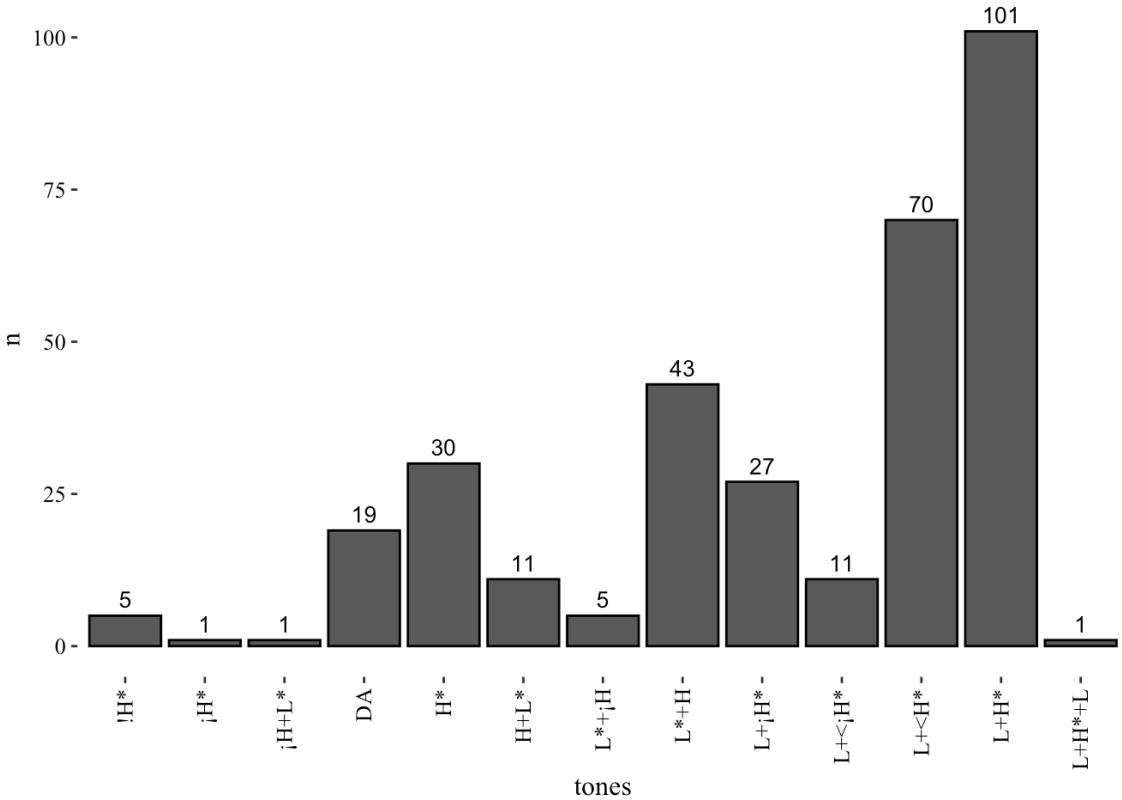


Figure 5.36: Durazno Non-focalized Prenuclear Pitch Accents

Based on Figure 5.36, pitch accents L+H*, L+<H*, and L*+H are the most common in prenuclear position in BFDs and non-focalized NFDs. A Poisson regression was run where the dependent variable was n (number of occurrences), and the independent variable was tone (3 levels for this model: L+H*, L+<H*, and L*+H). The intercept of the model is L*+H. L+H* was found to be statistically significant over L*+H ($p < .005$), as was L+<H* ($p < .05$). Ignoring momentarily the upstep (¡) in pitch accent L+¡H* to only consider peak alignment, the preference for early peaking L+H* becomes more apparent. A second Poisson regression comparing only L+H* and L+<H* found the difference to also be significant ($\beta = .37$, $p < .05$). Despite the preference for L+H*, late peaking, when combined L+<H* and L*+H surpass L+H*. However, the question remains: How can L+H*, L+<H*, and L*+H all be used to make broad focus? Recall from Chapter 3 that in some Spanish varieties these pitch accents are phonologically contrastive, but in Durazno they appear to be used interchangeably without marking narrow focus. This will be further addressed in Chapter 6.

While there was no observed sociolinguistic variation in BFD nuclear position in Durazno, in prenuclear position there is one statistically significant difference. The comparisons here are Poisson regressions where the dependent variable in each case is the number of productions, and the independent variable is gender. Figure 5.37 shows that females employ L+<H* significantly more than males ($p < .05$), and females also employ L*+H more than males, but this difference was not found to be significant. However, both males and females use L+H* the most to code broad focus, though females use L+<H* and L+H* at almost equal levels.

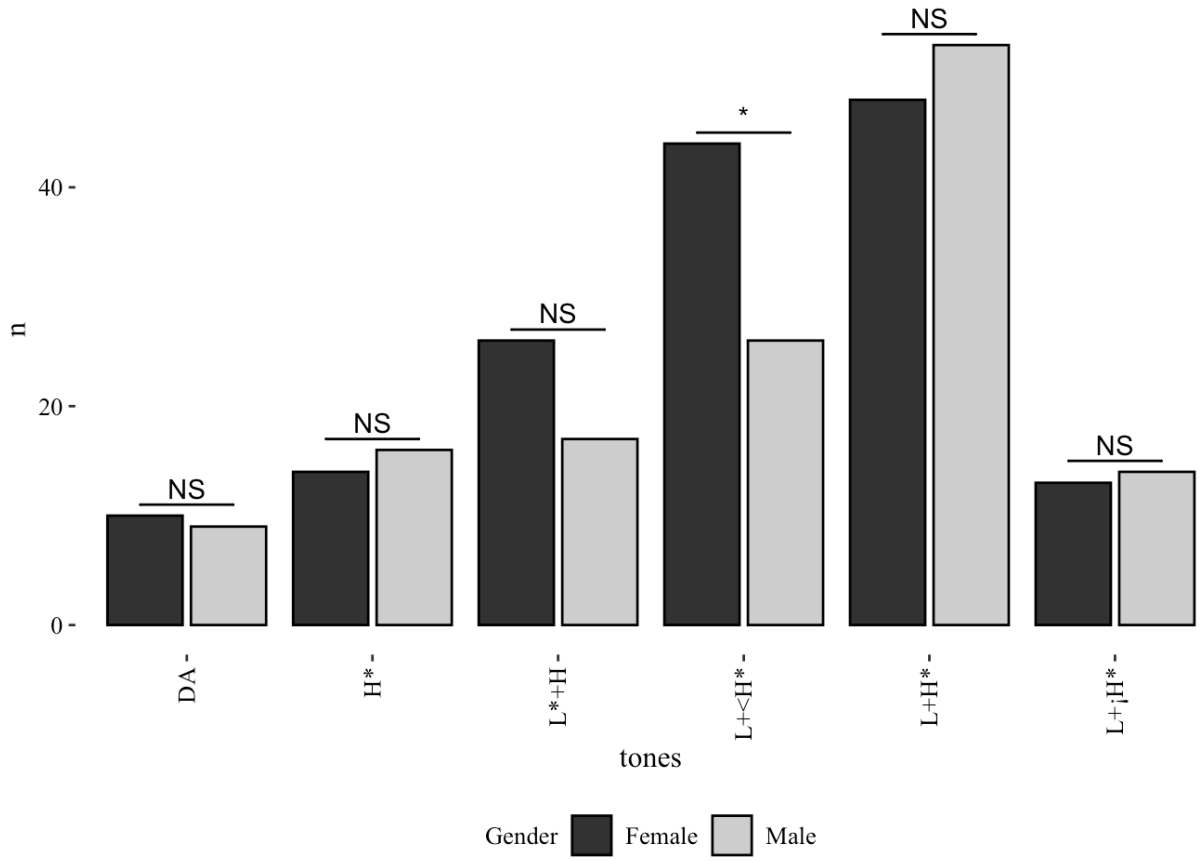


Figure 5.37: Durazno Non-focalized Prenuclear Pitch Accents by Gender

Regarding age groups, while not perfectly balanced, G2 and G3 only count on 1 more informant than G1. Figure 5.38 demonstrates how non-focalized prenuclear pitch accents compare by age. The most interesting finding of Figure 5.38 is that G1, (i.e., age group 18-35) employs L+<H* significantly more than G2 ($p < .05$). The findings presented in Figures 5.37 and 5.38 suggest that L+<H* is most common among females and G1. The potential implications of this finding are discussed in Chapter 6.

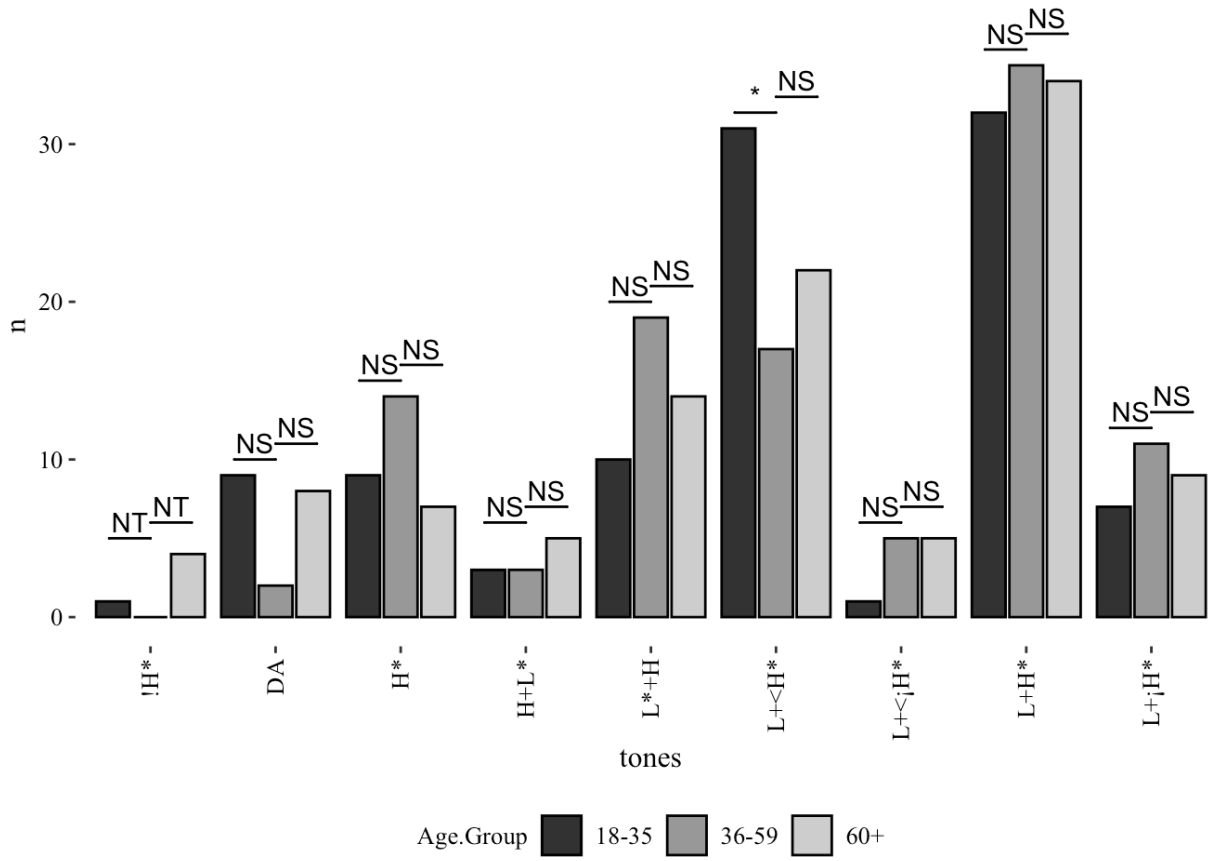


Figure 5.38: Durazno Non-focalized Prenuclear Pitch Accents by Age Group

The syntactic distribution of L+<H* versus L+H*, suggests that all Durazno informants including males and G2 and G3 informants, who use L+<H* with lower frequency, use L+<H* most reliably in specific environments. First, with phrase-initial nominal subject *María* in BFD1, potentially also an effect of topicalization despite the lack of an ip boundary. Second, with *quiero*$_2$ in NFD1 with 8 of 20 informants, equally distributed by gender, but favored by G3 with 5 of 8 informants. However, in this syntactic environment L*+H is employed with greater frequency 12/20. Representing the second half of the Durazno informants, it too is equally distributed by gender and favored among G1 and G2. In Durazno, pitch accent L+H* is never used in this syntactic environment. *Quiero*$_2$ initiates the second ip, placing it in phrase-initial position. It also precedes the focalized PW *naranjas*. By peaking late before a PW under

contrastive/corrective focus, marked by peaking early, the speaker increases the contrast and, thereby, the clarity with which the correction is received. However, in cases when the following focalized PW is stunted, the extended F0 rise over *quiero₂* increases the visibility of *quiero* while neglecting *naranjas*, perception work is required to determine if this is interpreted as more polite since the correction is less marked. Third, with PW *posible que* in NFD4, informants peak late, preferring L*+H 12 of 20 informants, 8 female 4 male. The word *posible* in NFD4 follows the short aspirated copular verb *es*, most consistently coded H*, and precedes a complementizer phrase *que*, which, prosodically, is inconsistently coded as an ip boundary in the data. Grammatically, NFD4 is an impersonal expression *es posible que*… and as such *es* cannot take a nominal subject and, with low communicative value, is underemphasized. This leaves *posible*, the first communicative loadbearing word of the phrase, practically in phrase-initial position. The potential effects of this position are further discussed in Chapter 6.

Gender and age are significant indicators of intonational variation in prenuclear BFDs. However, in particular syntactic environments, those speakers who would otherwise use L+<H* and L*+H inconsistently reserve its use to increase the visibility of a PW, as we saw with BFD2 *María*, NFD1 *quiero₂*, and NFD4 *posible*. The fact that Durazno females and G1[59] tend to use L+<H* with increased frequency may suggest that females and G1 mark greater intonational contrasts. For PWs where G3 used L+<H* consistently, G1 frequently peaked later still by employing L*+H, suggesting that the older generation peaks earlier than the younger generation and that males peak earlier than females.

[59] This finding for G1 is mostly due to G1 Females ($n = 4$) rather than G1 Males ($n = 2$).

5.3.3 NFD Focalized Pitch Accents

Across the six NFD utterances, there are 7 PWs with narrow focus, totaling 140 tokens. Each utterance has one, and NFD3, as a categorical declarative, has two. Each of these NFDs employs narrow focus to express different meanings. Nevertheless, as was done with broad focus in the previous sections, Figure 5.39 accounts for all pitch accents used to mark narrow focus across utterances. L% boundary tones are removed to focus on peak alignment; all other boundary tones are included.

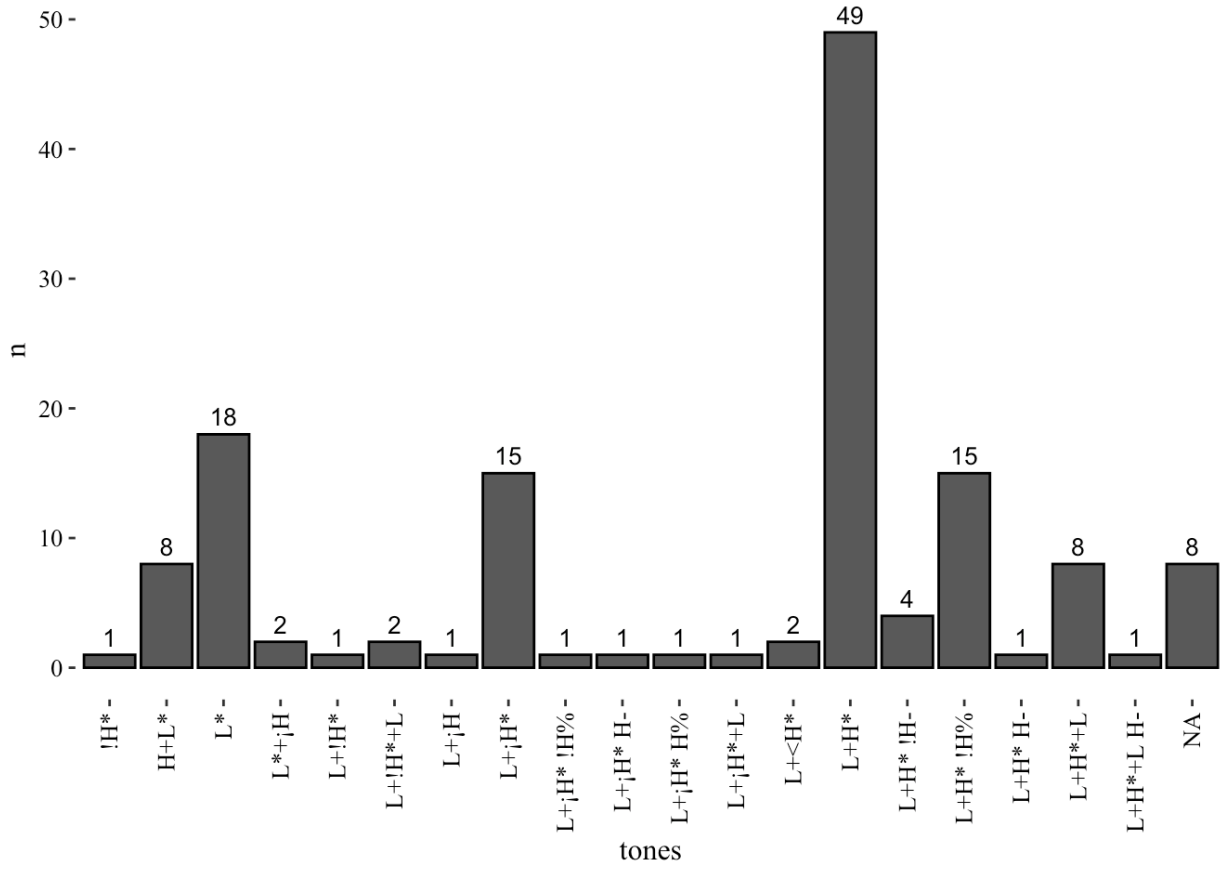


Figure 5.39: Durazno Nuclear and Prenuclear Focalized NFDs

Figure 5.39 demonstrates that relatively few pitch accents are used to mark narrow focus in Durazno, mostly L+H* with either an L% or !H% boundary tone, sometimes upstepped. Figure 5.39 also shows that tritonal pitch accent L+H*+L is infrequent in Durazno even when

considering vertical peak alignments (!) and (¡) and boundary tones *n* = 12. The low count of the tritonal and predominant uses of L+H* suggests that Durazno speakers do not peak early enough to fall within the stressed syllable, leading to the mid-level boundary tone !H%, or that the fall is unguided and therefore does not qualify as tritonal based on the criteria described in Chapter 4. L* is also common but does not mark narrow focus; instead, it is evidence of instances of *peak stunting* or an utterance that did not inspire emphasis.

Looking at the data for all NFDs together for Durazno there are no significant differences by gender and age group. Figures 5.40 provides a breakdown by gender to be compared to Figure 5.7 for Montevideo. Nevertheless, to understand the pitch accent distribution by utterance, I examine each NFD one at a time.

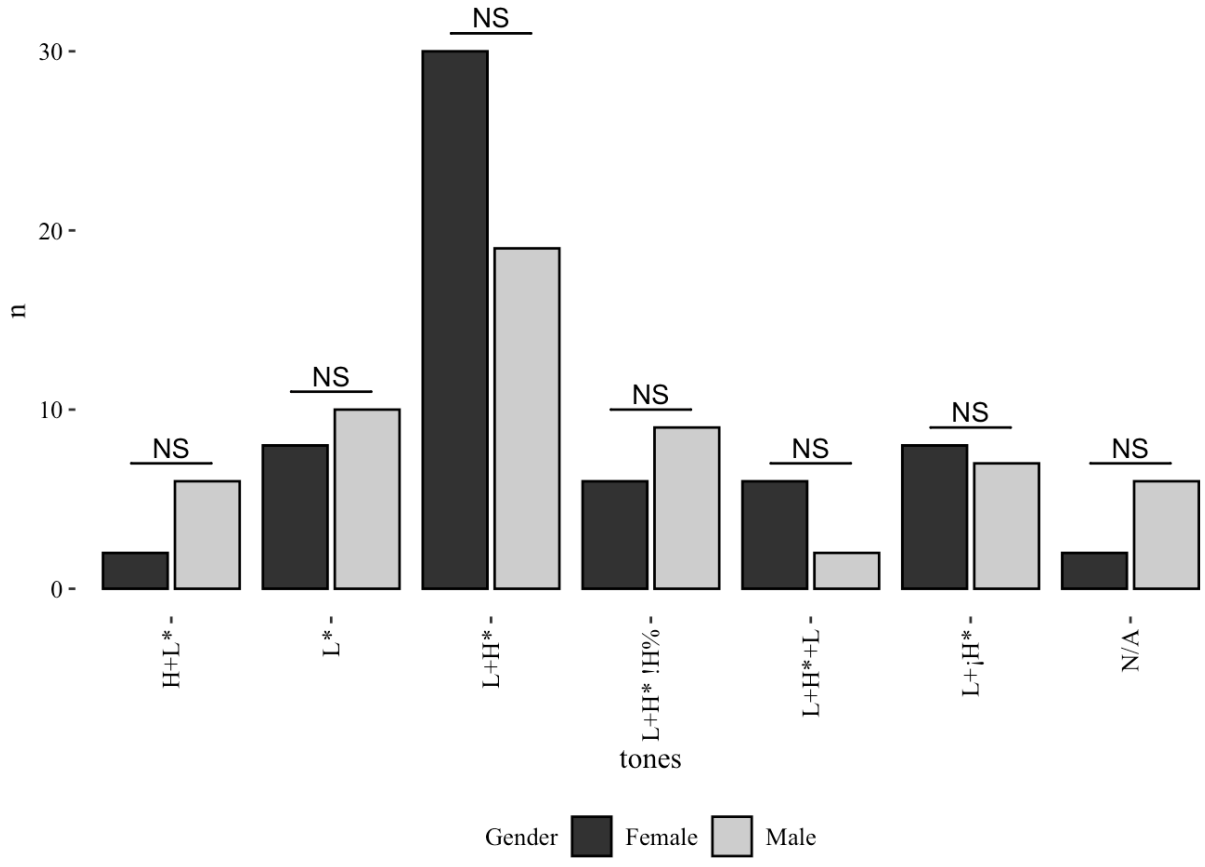


Figure 5.40: Durazno Nuclear and Prenuclear Focalized NFDs by Gender

All narrow focus is emphasis, however, depending on the desired interpretation, a speaker uses pitch contours to mark the degree of emphasis required. Since many of these NFDs can be interpreted in different ways, the situations provided in Chapter 4 encouraged each informant to interpret the target phrase a certain way. However, in the end, it is an interpretation that is not devoid of the speaker's personality and some informants exhibited more enthusiasm than others.

5.3.3.1 Contrastive/Corrective Focus: NFD1

NFD1, *¡Senora, no quiero limones, quiero naranjas!*, marks contrastive/corrective focus on the word *naranjas*. Figure 5.41 includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per nuclear configuration; the second separates these by gender, and the third by age group. Only L% boundary tones were used in NFD1 and are thereby excluded from the Figure and subsequent explanations. Of the tokens included in the plots $n = 19$, the bitonal pitch accent L+H* ranks 1st with 10 tokens making up 52.63% of the whole. In a near tie, in 2nd place, is monotonal L* with 9 tokens or 47.37% of the whole. This L* pitch accent is the result of *peak stunting,* where the preference for late peaking L*+H anchored to *quiero*$_2$ continues to rise into the following focalized PW, thereby limiting its ability to have its own rising peak.

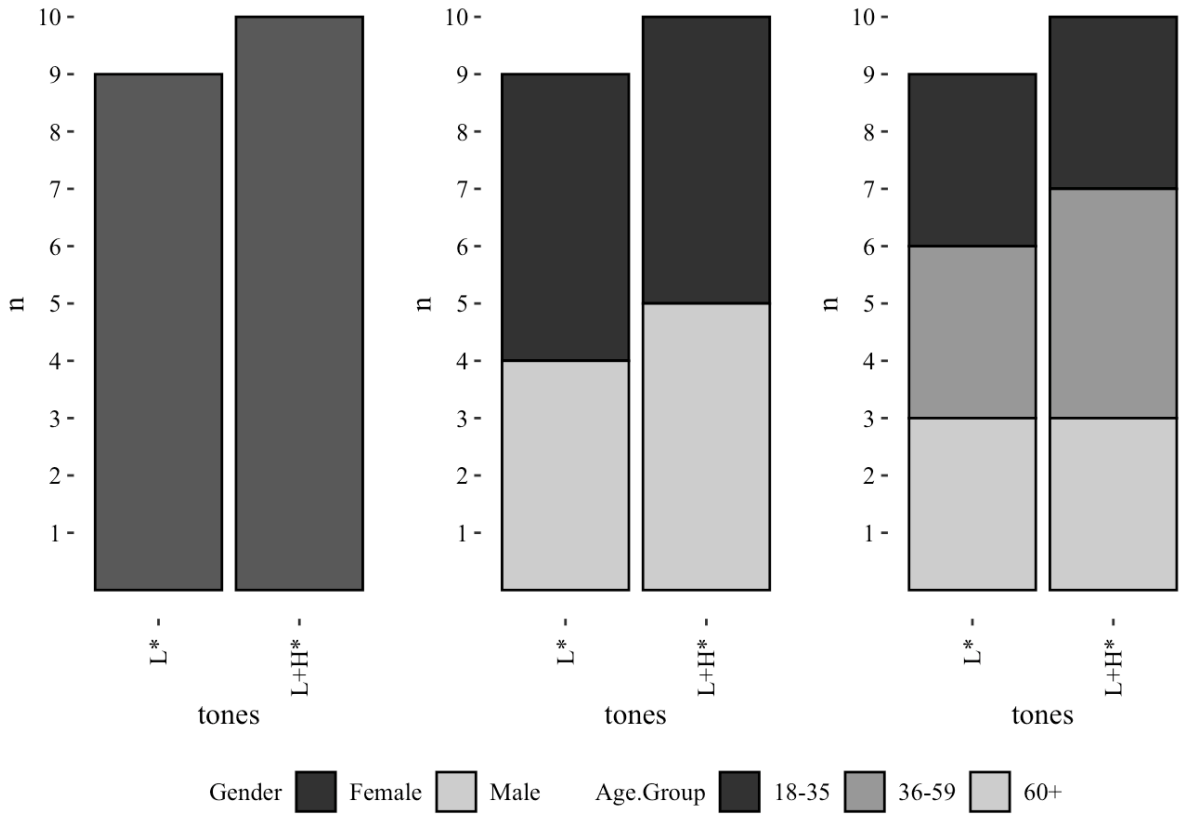


Figure 5.41: Durazno Contrastive/Corrective Focus NFD1. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group.

For transparency, I provide example contours for these two pitch accents employed in NFD1, namely L+H* in Figure 5.42, and L* in Figure 5.43, this final Figure shows peak stunting. Notice the relationship between the peak alignment over *quiero*$_2$ and *naranjas.* While the peak over *quiero* always peaks late, either L+<H* or L*+H, the sooner it falls, the more time *naranjas* has to rise and fall. Thus, in Figure 5.42, the fall from *quiero* does not reach a valley until the start of the stressed syllable of *naranjas,* and thus, there is not enough space to produce a bitonal or tritonal pitch accent. In Figure 5.43, the peak height over *quiero*$_2$ was so low and

drawn out that a downstepped peak on *naranjas* meant no peak, such that the focalized peak is stunted.

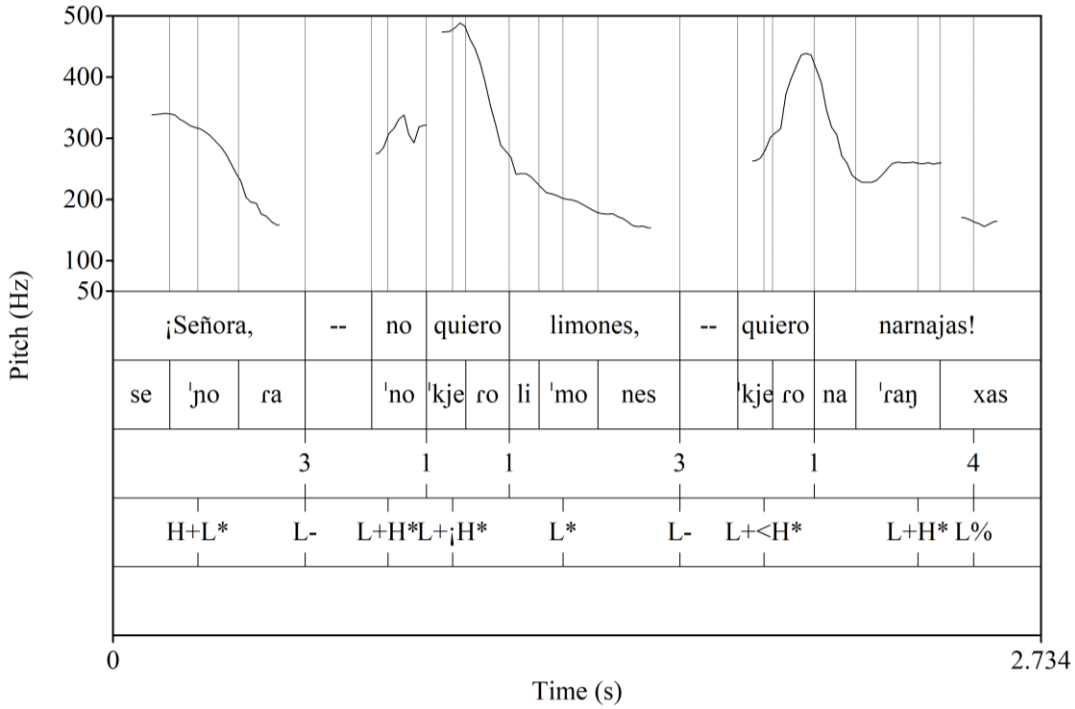


Figure 5.42: NFD1 Marked with Bitonal L+H*. DZF67 employs L+H* over *naranjas.*

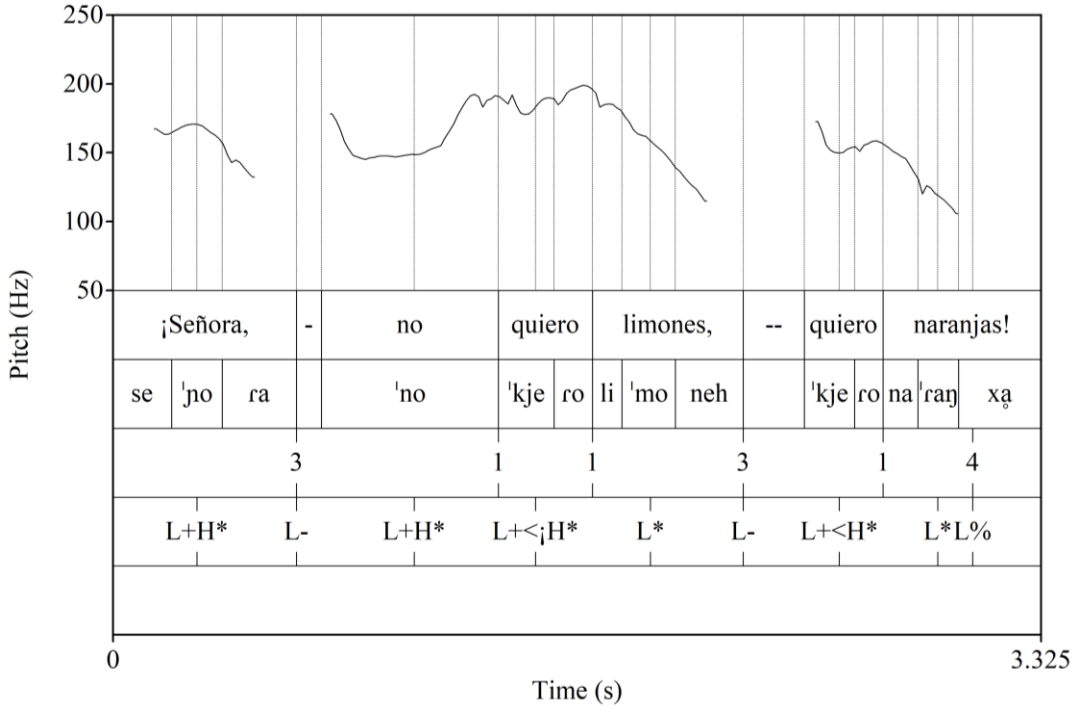


Figure 5.43: NFD1 Marked with Monotonal L*, Example of Peak Stunting. DZM60 employs L* over *naranjas* due to peak stunting.

5.3.3.2 Emphasis: NFD2

NFD2, *¡Qué rico olor a medialunas!,* marks emphasis on the word *medialunas.* Figure 5.44 includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per nuclear configuration; the second separates these by gender, and the third by age group. L% boundary tones are default and therefore excluded in the figure. Of the tokens included in the plots $n = 18$, the bitonal pitch accent L+H* L% ranks 1st with 9 tokens, making up 50% of the whole. In 2nd place is the combined variations of L+H* including tokens employing !H% or upstepping L+¡H* with a combined 5 tokens or 27.77%. In 3rd place is the monotonal pitch accent L* with 4 tokens or 22.22% of the whole. These 4 L* tokens suggest the informants did not emphasize *medialunas* as expected.

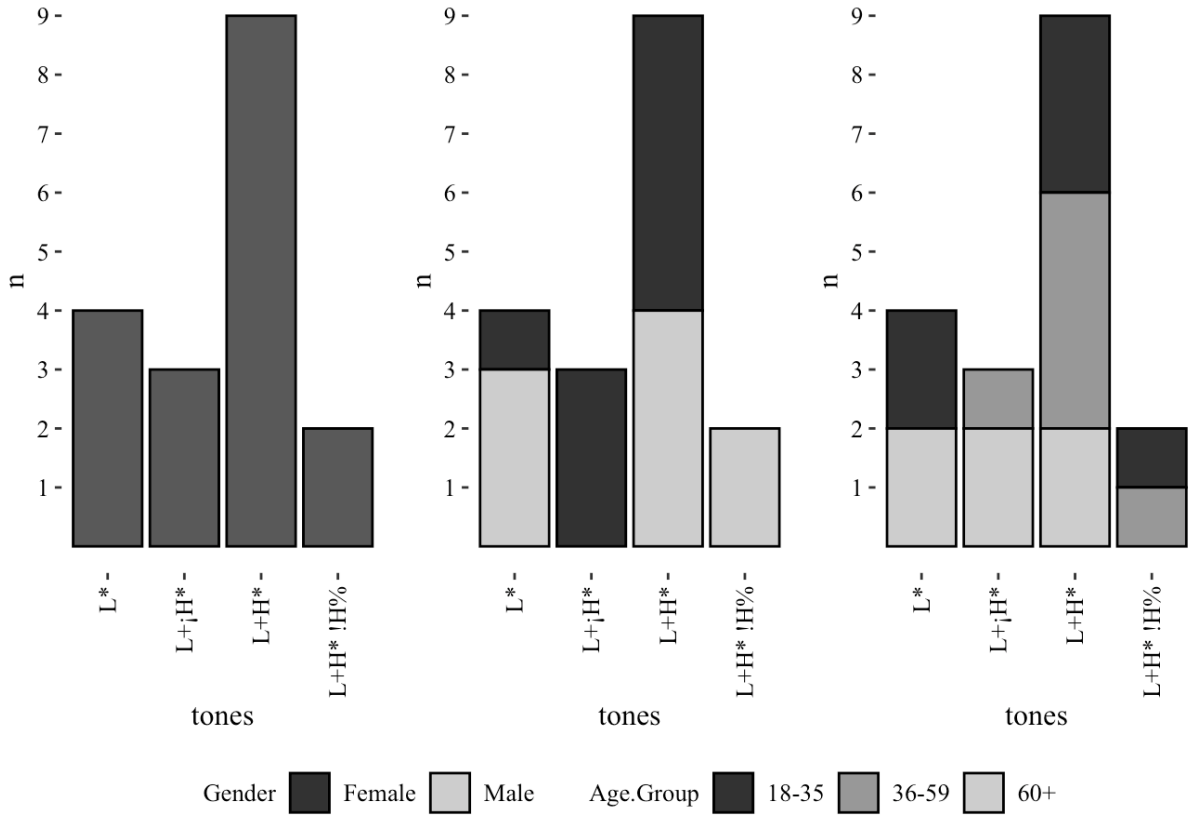


Figure 5.44: Durazno Emphasis NFD2. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. However, all upstepped bitonal pitch accents were produced by female informants, suggesting that Durazno females mark greater intonational contrasts. For transparency, I provide example contours for each of the top two pitch accents employed in NFD2, namely L+H* in Figure 5.45, and L+¡H* in Figure 5.46; these L* tokens are not cases of peak stunting but rather the absence of narrow focus.

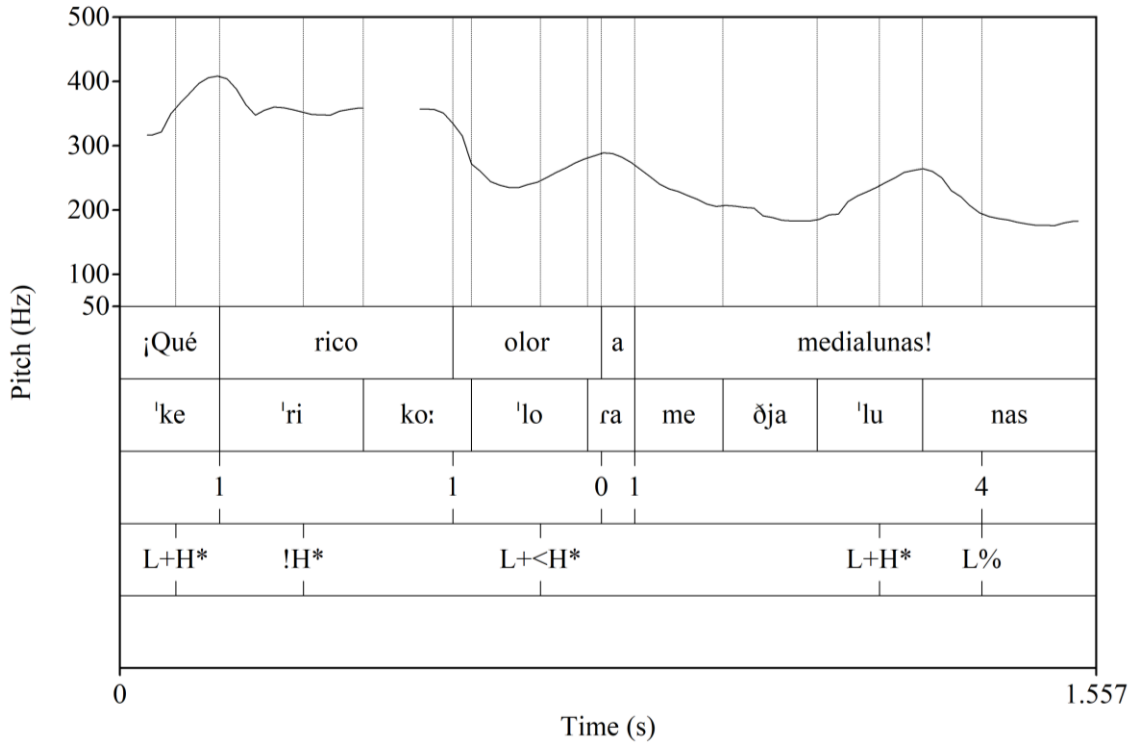


Figure 5.45: NFD2 Marked with Bitonal L+H*. DZF34-2 employs L+¡H* over *medialunas.*

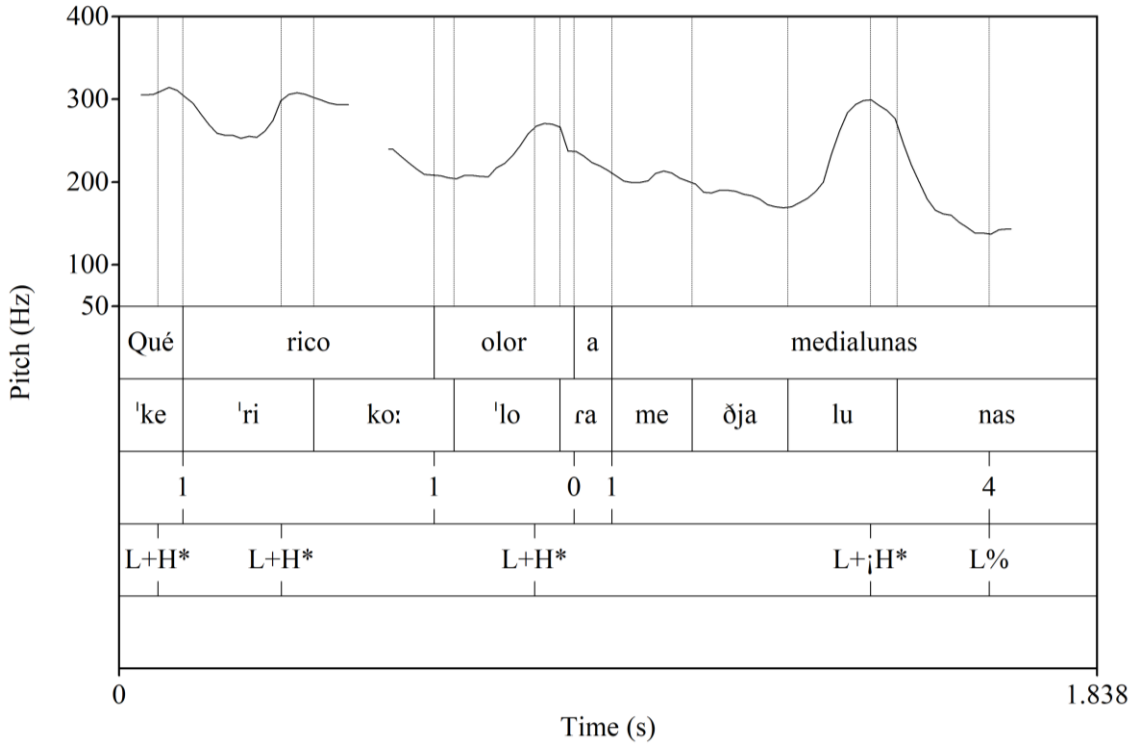


Figure 5.46: NFD2 Marked with Upstepped Bitonal L+¡H*. DZF67 employs L+¡H* over *medialunas.*

5.3.3.3 Categorical Declarative and Secondary Focus: NFD3

NFD3, *¡No, se van a vivir a San Juan!,* has the intended categorical declarative focus on PW *No,* NFD3a, and a secondary milder corrective focus on PW *a San Juan*, NFD3b. Both PWs are examined here separately. NFD3a is examined first. Figure 5.47 includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per pitch accent; the second separates these by gender, and the third by age group.

Of the tokens included in the plots, $n = 18$, the bitonal pitch accent L+H* L- ranks 1st with 5 tokens, making up 27.77% of the whole. Relative peak height is not considered because it is the initial peak of the utterance. In 2nd place, there is a tie between bitonal L+H* !H- and tritonal L+H*+L L-, each with 4 tokens or 22.22% each. In 3rd place is falling pitch accent H+L* with 3 or 16.66%, all of these by males.

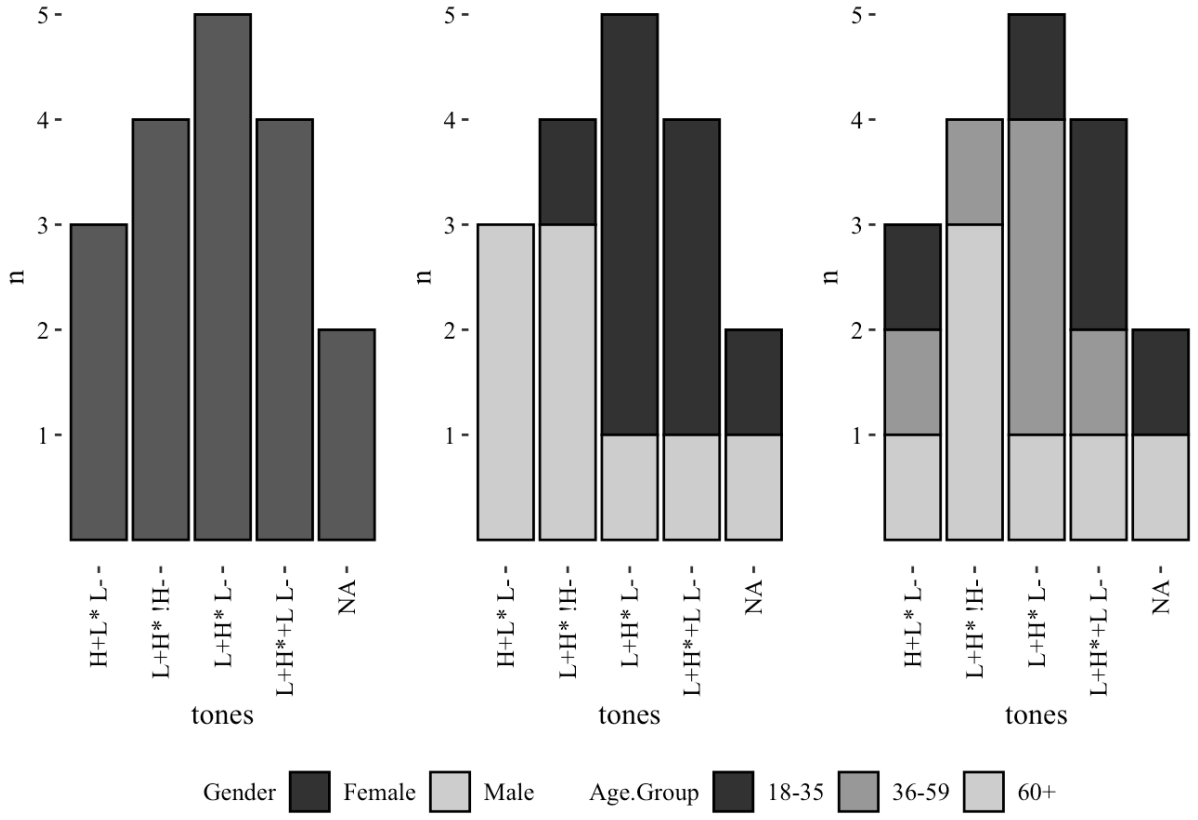


Figure 5.47: Durazno Categorical Declarative NFD3a. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, yielded statistically significant differences for H+L* ($p < .05$), which was only used by males. This falling pitch accent does not express surprise; it is a calm, dispassionate dismissal or correction. These same male informants did not express narrow focus on *a San Juan* either. For transparency, I provide example contours for the four pitch accents employed in NFD3a, namely L+H* L- in Figure 5.48, L+H* !H- in Figure 5.49, L+H*+L in Figure 5.50, and H+L* in Figure 5.51

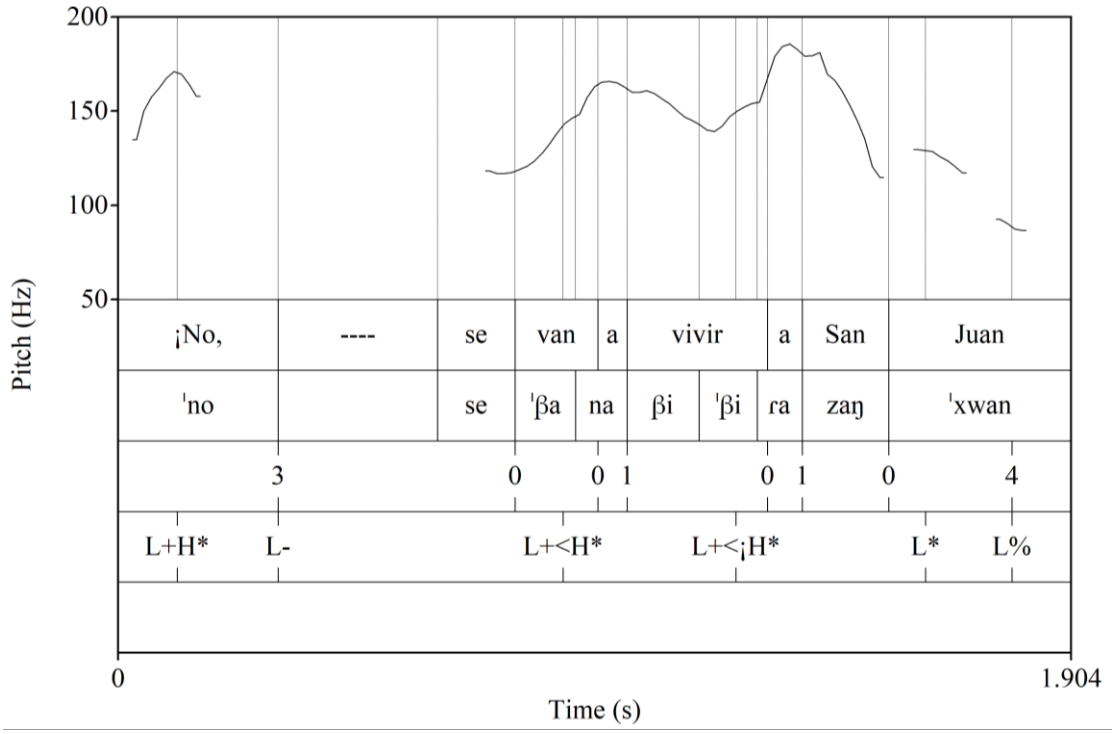


Figure 5.48: NFD3a Marked with Bitonal L+H* L-. DZM45 employs L+H* L- over *No* and L* L% over *a San Juan*.

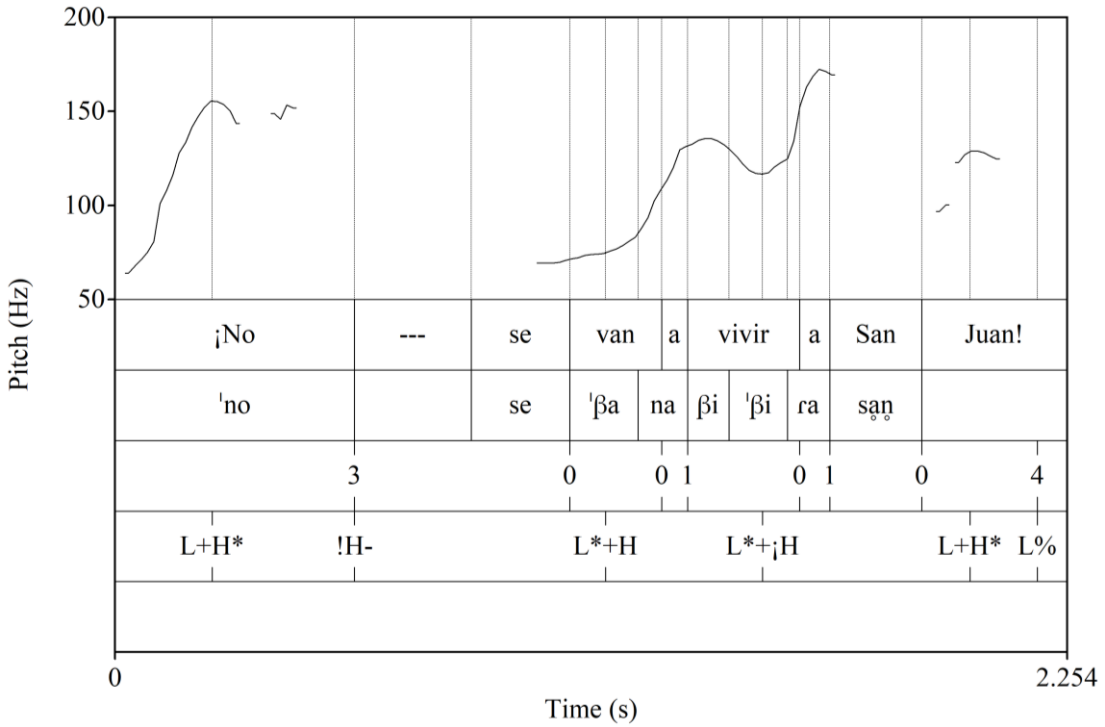


Figure 5.49: NFD3a Marked with Bitonal L+H* !H-. DZM62 employs L+H* !H- over *No* and L+H* L% over *a San Juan*.

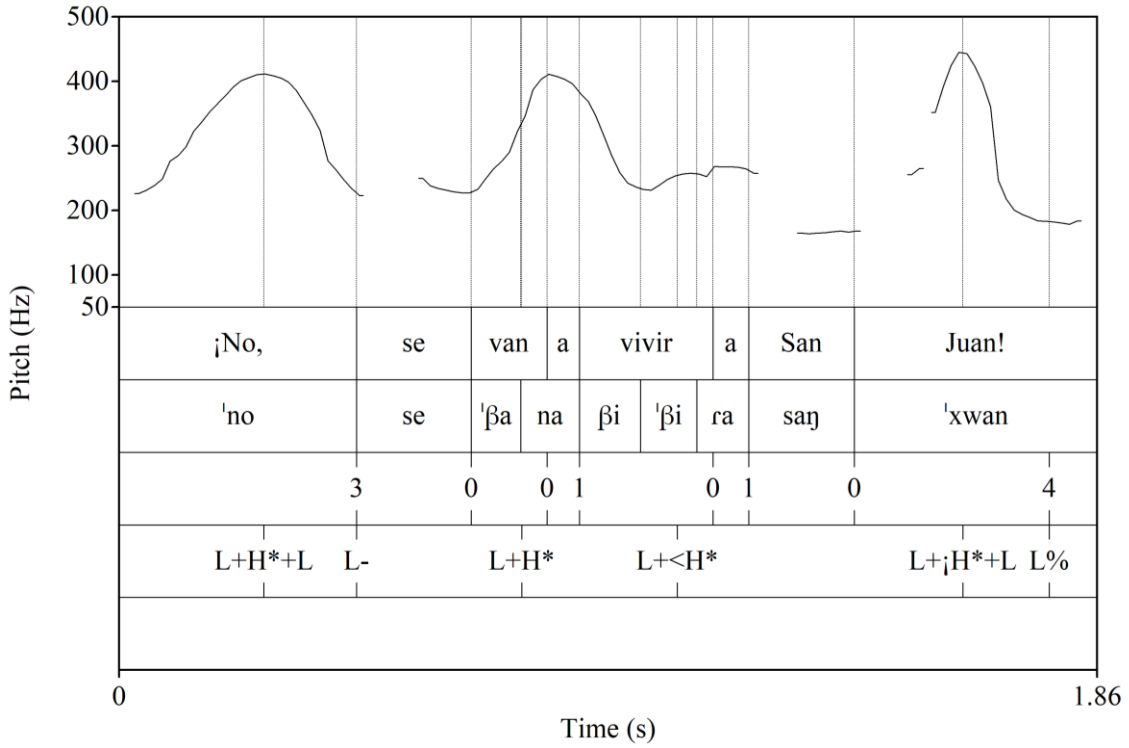


Figure 5.50: NFD3a Marked with Tritonal L+H*+L. DZF34-2 employs L+H*+L over *No* and L+¡H*+L over *a San Juan*.

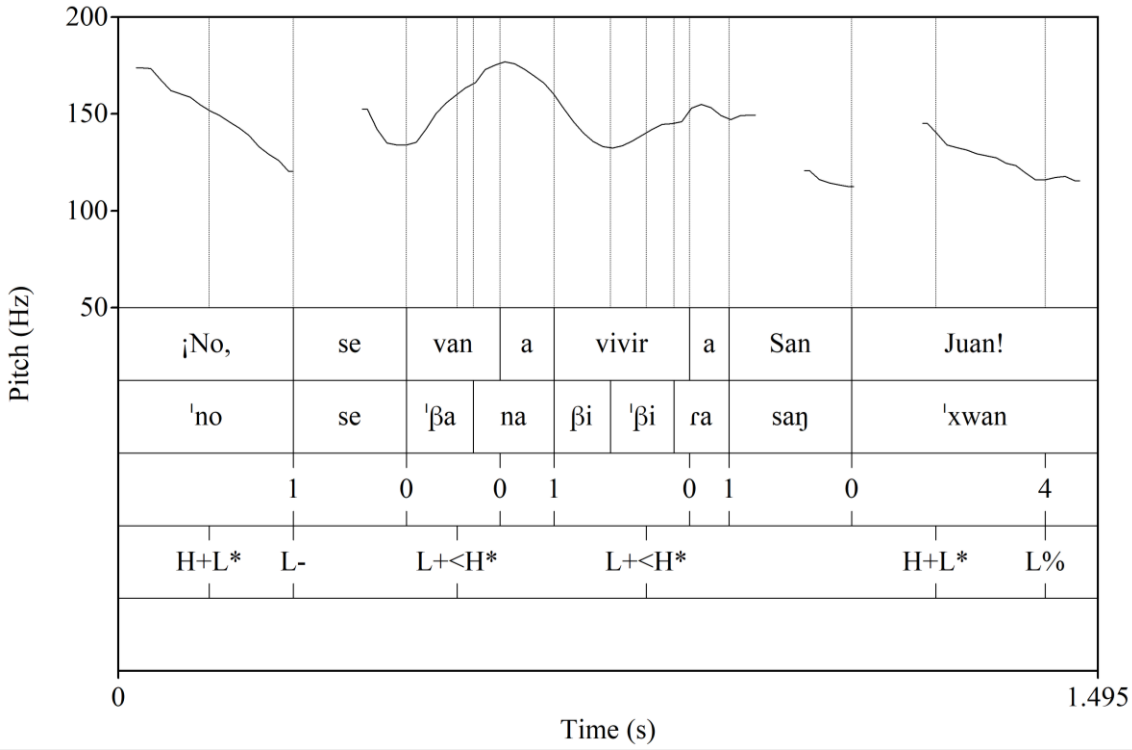


Figure 5.51: NFD3a Marked with Bitonal H+L*. DZM20 employs H+L* over *No* and H+L* L% over *a San Juan*.

As mentioned above, NFD3 has two points of focus. The results for the second focalized PW, NFD3b, *a San Juan*, are illustrated in Figure 5.52, which includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per nuclear configuration; the second separates these by gender, and the third by age group. Only L% boundary tones were used in NFD2 and are thereby excluded from subsequent explanations.

Of the tokens included in the plots $n = 15$, the monotonal pitch accent L* ranks 1st with 5 tokens. This means 33.33% did not focalize this PW. In 2nd place is falling bitonal H+L* with 4 or 26.66%, again representing a lack of narrow focus. In 3rd place, bitonal pitch accent L+H* also with 4 tokens or 26.66% of the whole. Among the trimmed informants was one regular, one upstepped (see Figure 5.50 above), and one downstepped tritonal, meaning that the tritonal remains a possibility but is more emphatic than most Durazno speakers use.

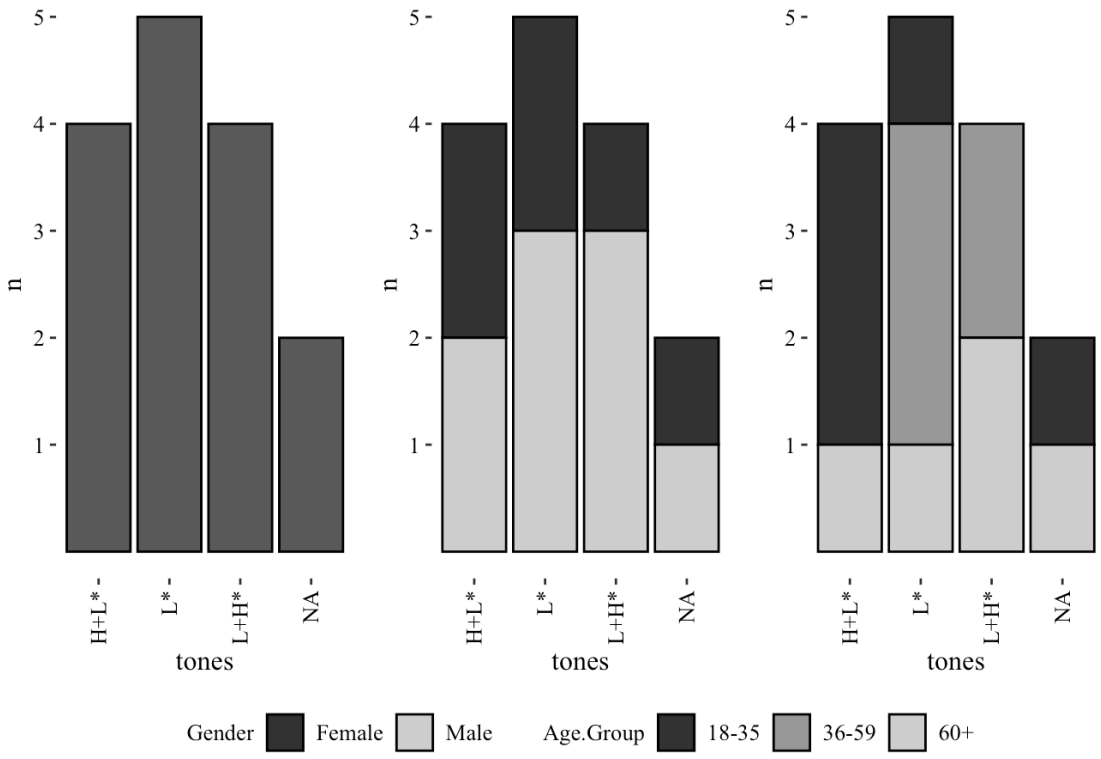


Figure 5.52: Durazno Secondary Corrective Focus NFD3b. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. For transparency, I provide example contours for each of the top three nuclear pitch accents employed in NFD3b, namely L* in Figures 5.48 above, L+H* in Figure 5.49 above, and H+L* in Figure 5.51 above.

5.3.3.4 Doubtful Declarative: NFD4

NFD4, *Es posible que no le guste el regalo.* In this doubtful declarative, the word *posible* gets the most attention as explained in Section 5.3.2, but *posible* is not under narrow focus. Instead, PW *guste* is potentially emphasized, but not to the degree seen in NFD2. Figure 5.53 includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per pitch accent; the second separates these by gender, and the third by age group.

Of the tokens included in the plots $n = 17$, the bitonal pitch accent L+H* ranks 1st with 7 tokens or 41.17% of the whole. In a close 2nd place is upstepped bitonal pitch accent L+¡H* with 6 tokens or 35.29%. In 3rd place, 4 or 23.52% of informants chose to peak late with either L*+¡H or L+<H*, 2 token each. These late peaking pitch accents do not denote narrow focus but rather increase visibility.

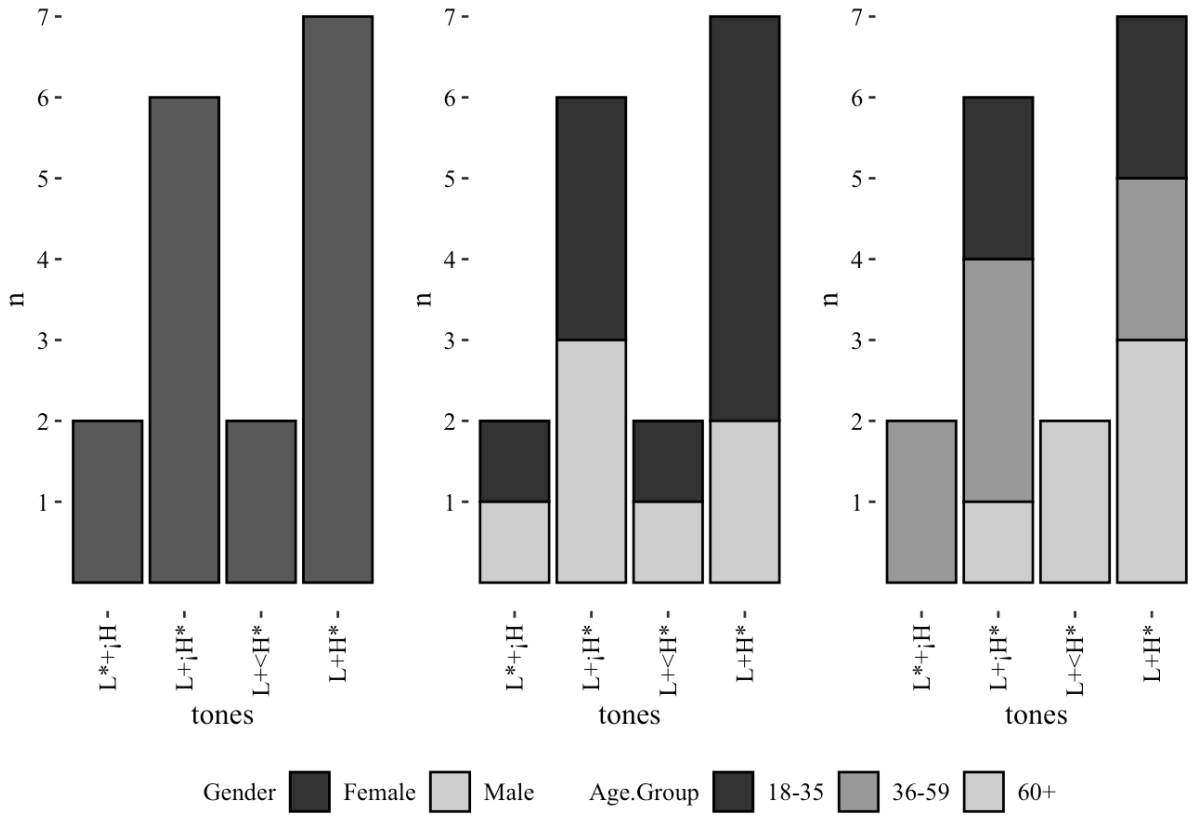


Figure 5.53: Durazno Doubtful Declarative NFD4. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. For transparency, I provide example contours for each of the top two pitch accents employed in NFD4, namely L+H* in Figure 5.54 and L+¡H* in Figure 5.55, the third most common F0 pattern was late peaking, which does not mark narrow focus and is therefore excluded from the following figures. In Figure 5.54, we see a peculiar F0 contour where all PWs prior to the focalized PW are said with one continuously rising pitch, which drops suddenly at the onset of the focalized PW. This pitch behavior is similar to what we see in cases of peak stunting. Perceptual work is needed to determine if this F0 pattern is interpreted as more polite by

inversely highlighting the focalized PW. Figure 5.55 also suggests that informant DZM68 also focalized *posible* by employing the same upstepped bitonal pitch accent L+¡H*, a less common pattern in the data.

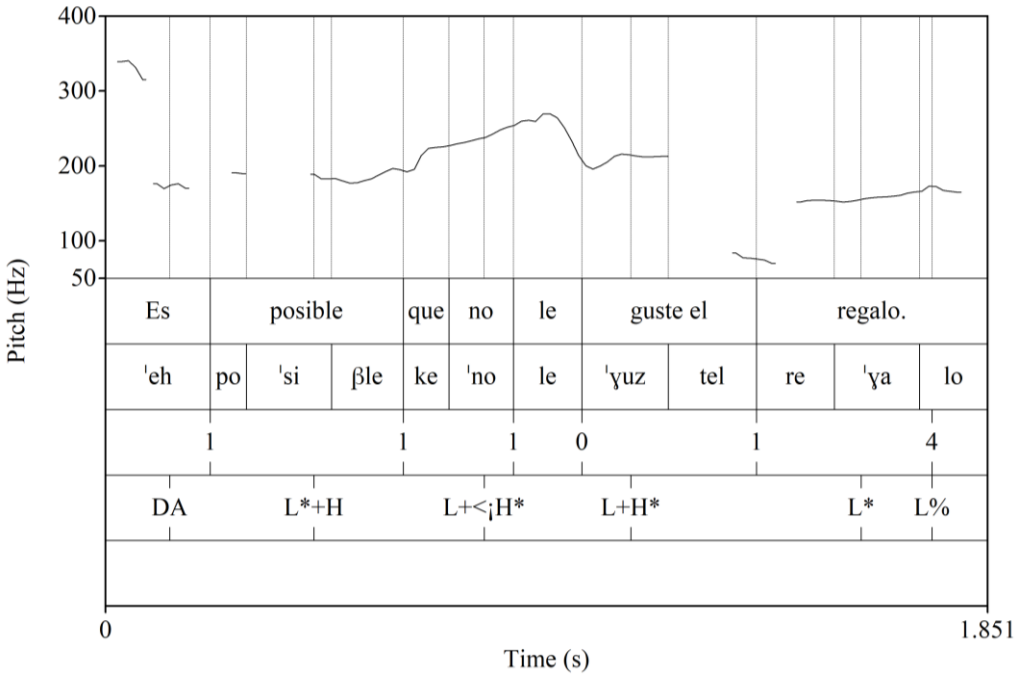


Figure 5.54: NFD4 Marked with Bitonal L+H*. DZF56 employs L+H* over *guste.*

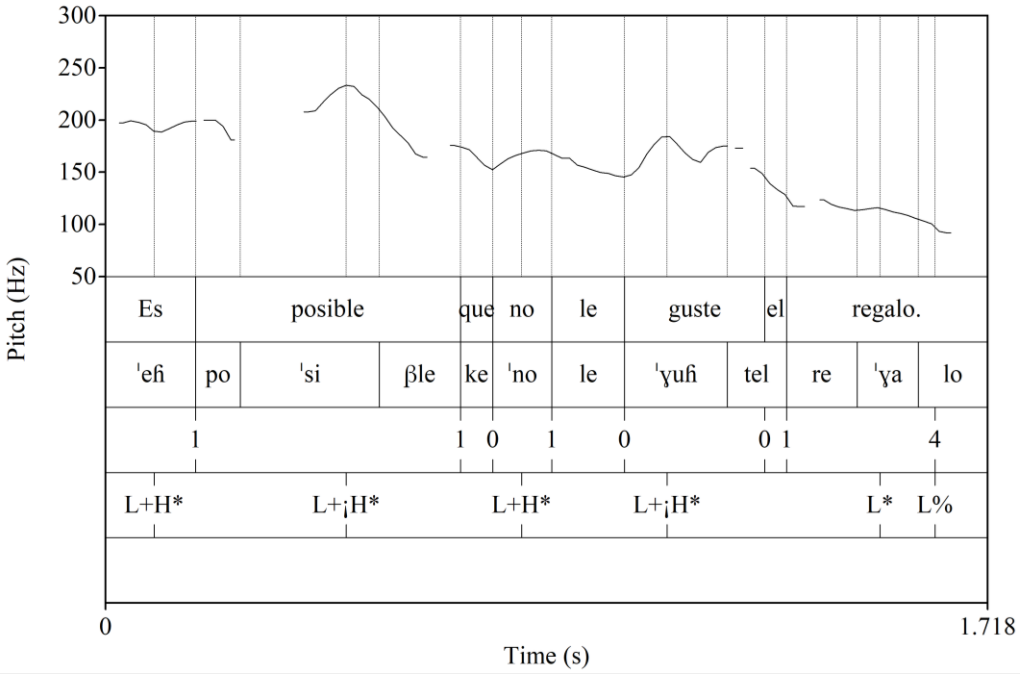


Figure 5.55: NFD4 Marked with Upstepped Bitonal L+¡H*. DZM68 employs L+¡H* over *guste.*

5.2.3.5 Statement of the Obvious: NFD5

NFD5, *¿Con quién va a ser? ¡Con Manuel!,* marks narrow focus on *Manuel* as a statement of the obvious. Figure 5.56 includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per nuclear configuration; the second separates these by gender, and the third by age group. Of the tokens included in the plots $n = 16$, 14 employ some variation of L+H*. L+H* ¡H% ranks 1st with 12 tokens or 75% of the whole. Relative peak height is not considered because it is the initial peak of the utterance under study. However, the peak height is substantial and would likely be upstepped if part of a larger utterance. In 2nd place, bitonal nuclear configuration L+H* L% with 2 tokens or 12.5% of the whole. In 3rd place, the tritonal L+H*+L, thus classified because the fall was guided. The overwhelming preference for boundary tone !H% in NFD5 appears to be characteristic of Durazno, and while it appears sporadically across other NFD utterances in nuclear position its prevalence in NFD5 suggests that it marks the highest level of narrow focus in Durazno. This final boundary tone indicates that F0 did not fall to a low level but instead plateaued in the middle of the informant's pitch range for this utterance or that the utterance ending cut the fall.

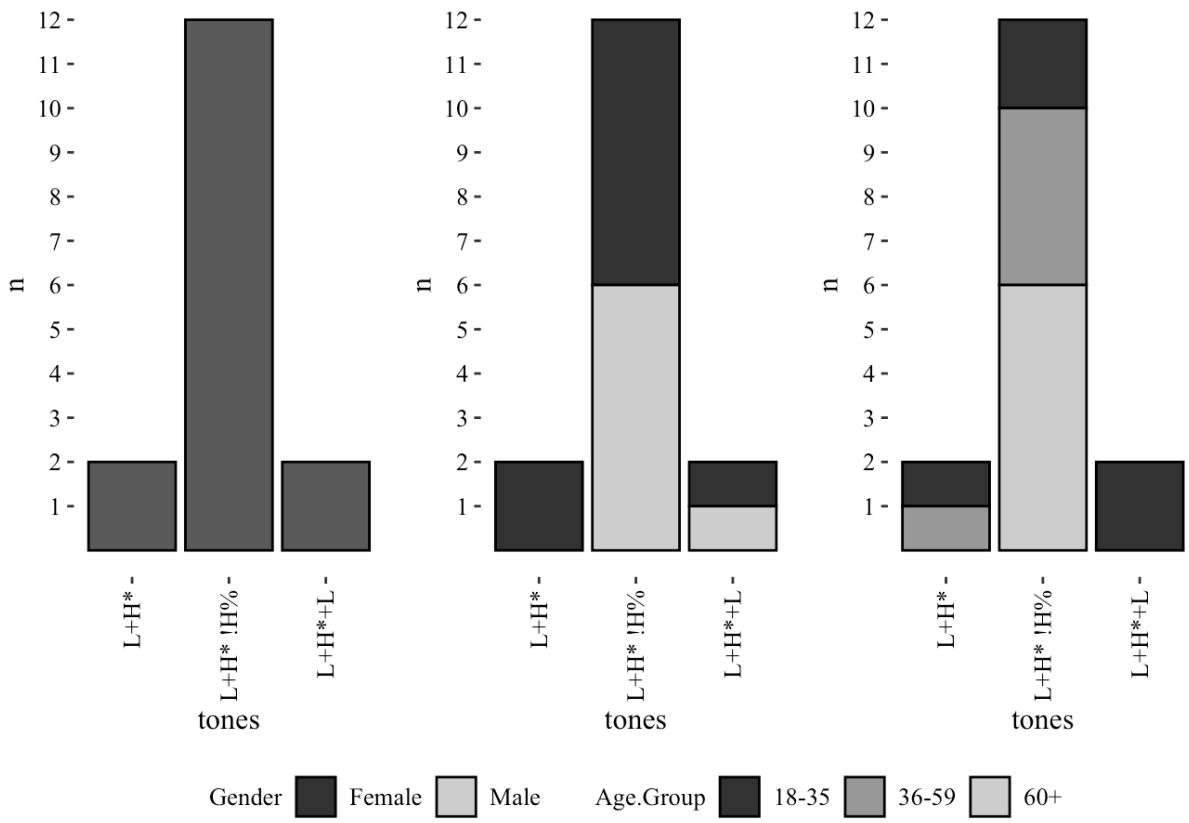


Figure 5.56: Durazno Statement of the Obvious NFD5. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. For transparency, I provide an example contour for NFD5 employing, namely L+H* !H% in Figure 5.57.

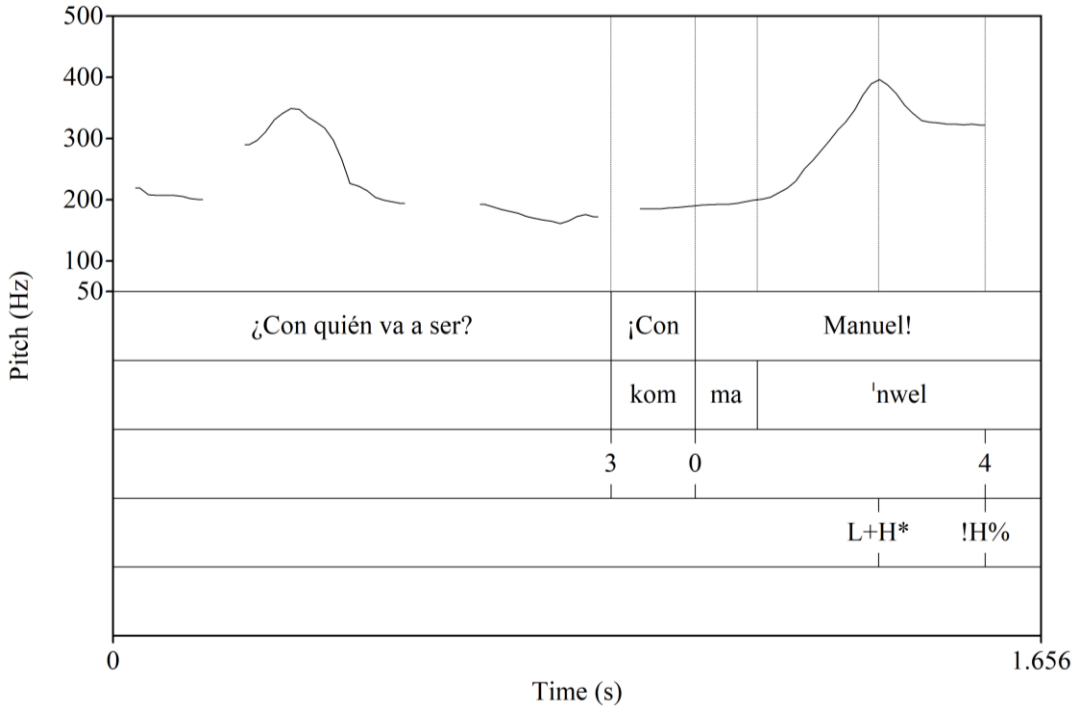


Figure 5.57: NFD5 Marked with L+H* !H%. DZF56 employs L+H* !H% over *Con Manuel.*

5.2.3.6 Exclamative Declarative: NFD6

NFD6, *¡Está buenísimo!*, marks narrow focus on *buenísimo* as an exclamative declarative, requiring a type of emphasis. Figure 5.58 includes three plots, each trimmed to only include pitch accents where $n \geq 2$. From left to right, the first plot includes the count per nuclear configuration; the second separates these by gender, and the third by age group. Only L% boundary tones were used in NFD6 and are thereby excluded from the figure.

Of the tokens included in the plots $n = 17$, L+H* ranks 1st with 12 tokens or 70.58% of the whole. In 2nd place is the same peak alignment with upstepping L+¡H* with 5 tokens or 29.41%. Another informant, not plotted here, used the downstepped bitonal peak L+!H*, signaling that this peak is much less salient than the standard L+H* peak, and another informant ended with a H% boundary tone. In all 100% of these tokens employ the same horizontal peak alignment L+H*, by increasing the vertical peak alignment some informants marked additional emphasis.

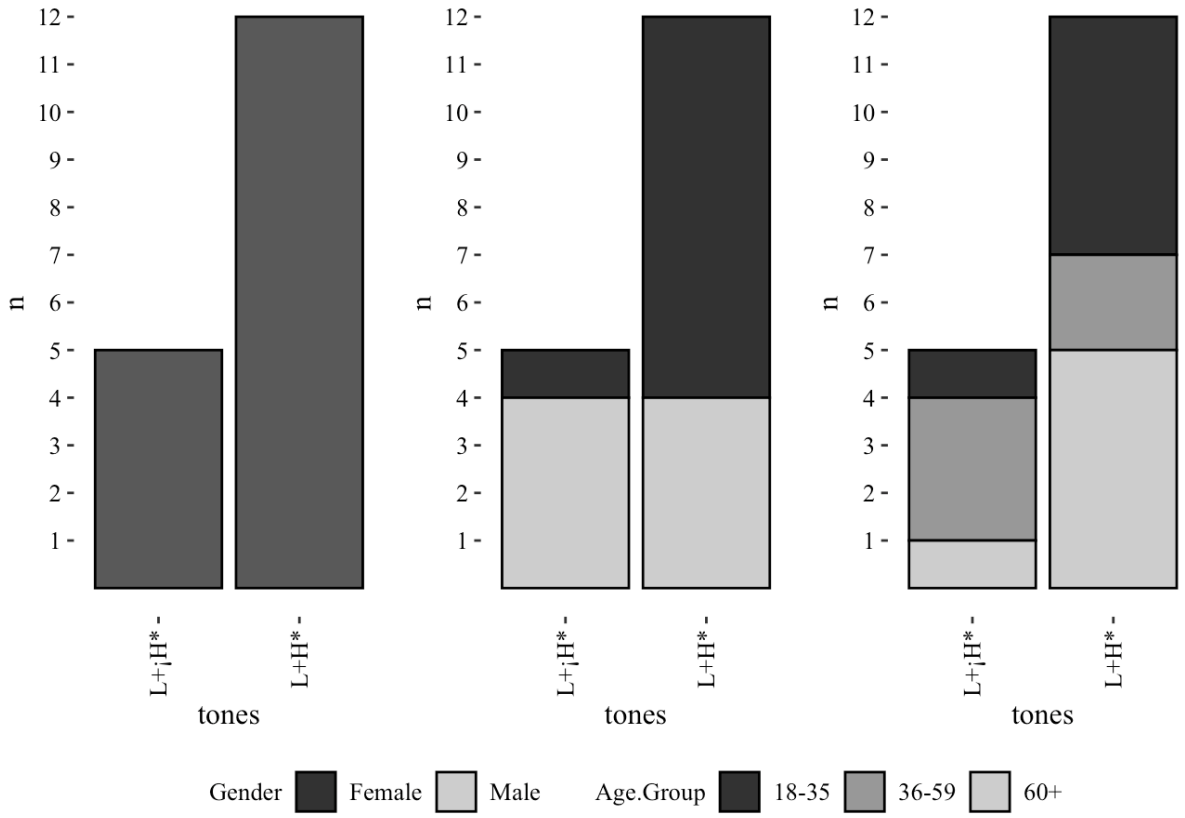


Figure 5.58: Durazno Exclamative Declarative NFD6. In general, by gender, and by age group.

A comparison by gender and age group using a Poisson regression, where the dependent variable in each case is the number of productions and the independent variable is gender or age, respectively, did not yield statistically significant differences by either gender or age group. However, Females did use L+H* significantly more than L+¡H* ($p < .05$). For transparency I provide example contours for each nuclear pitch accent employed in NFD6, namely L+H* in Figure 5.59, L+¡H* in Figure 5.60.

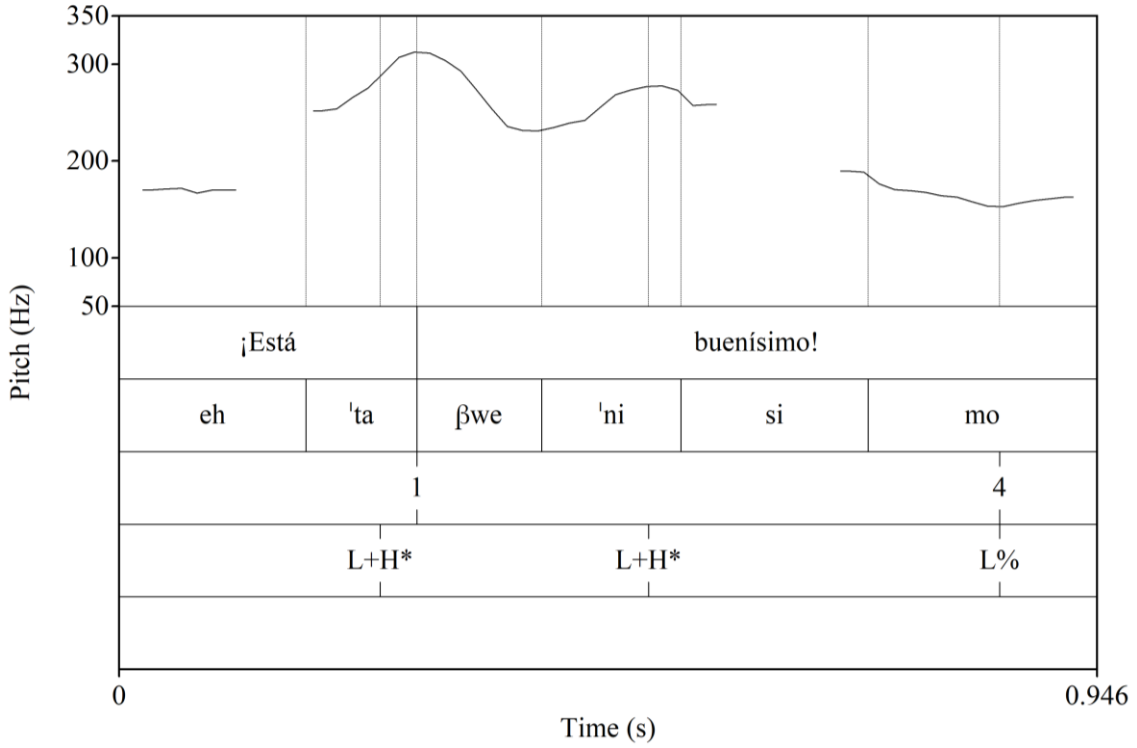


Figure 5.59: NFD6 Marked with Bitonal L+H*. DZF35 employs L+H* over *buen<u>í</u>simo.*

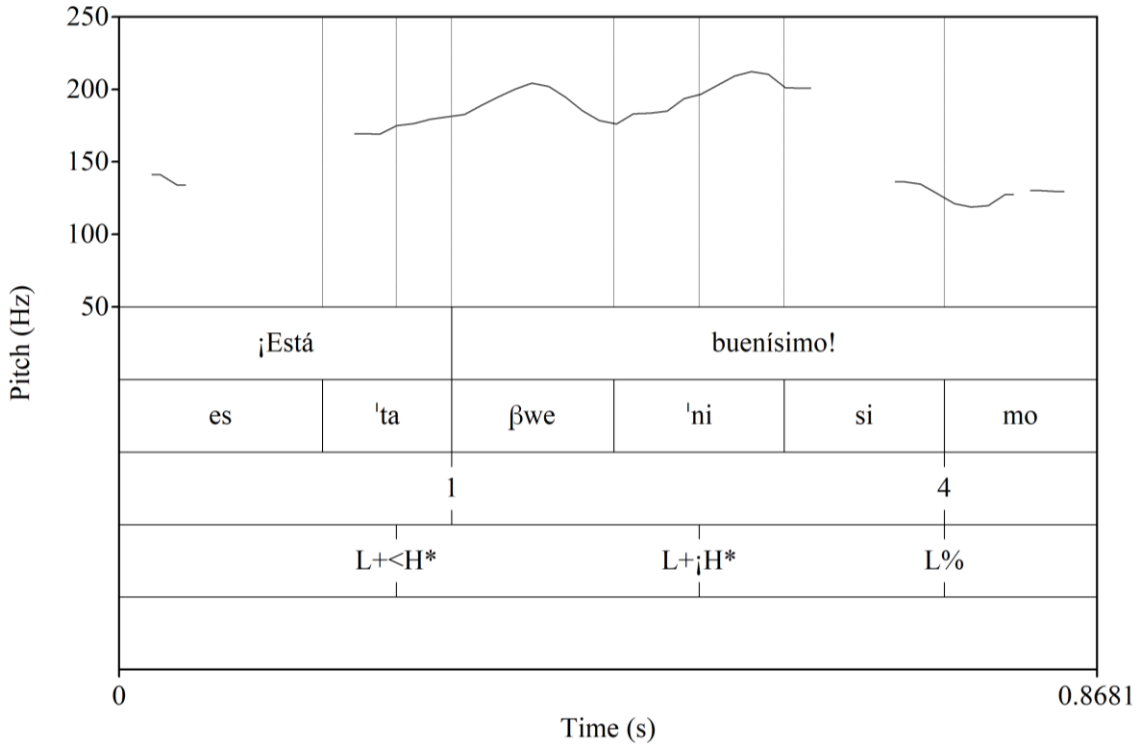


Figure 5.60: NFD6 Marked with Upstepped Bitonal L+¡H*. DZM25 employs L+¡H* over *buen<u>í</u>simo.*

5.3.3.7 Phonological Comparison of Durazno Narrow Focus

To summarize the prosodic trends revealed throughout Section 5.3.3, Table 5.5 below lists each NFD and ranks (1st - 3rd place) the frequency with which the top 3 pitch accents were used to mark narrow focus.

Durazno				
Utterance	**Focus Type**	**1st Place**	**2nd Place**	**3rd Place**
NFD1	Contrastive	L+H*	L*	--
NFD2	Emphasis	L+H* L%	L+¡H* / L+H* !H%	L*
NFD3a	Categorical Declarative	L+H* L-	L+H* !H- / L+H*+L L-	H+L*
NFD3b	Secondary	L*	H+L*	L+H*
NFD4	Doubtful Declarative	L+H*	L+¡H*	L+<H* / L*+¡H
NFD5	Statement of the Obvious	L+H* !H%	L+H* L%	L+H*+L
NFD6	Exclamative Declarative	L+H*	L+¡H*	--

Table 5.5: Durazno Narrow Focus Pitch Accent Ranking by Utterance and Focus Type

By comparing the pitch accents in 1st place for each utterance, it becomes evident that all Durazno NFDs, minus secondary focus on NFD3b, make use of L+H*. By comparing the pitch accents employed in 2nd place for each utterance, it becomes evident that emphasis, doubtful declaratives, and exclamative declaratives also pattern together by employing upstepping. Therefore, these statement types belong to a broader category, which I refer to as *Emphasis*. Though used second to L+H*, upstepping is not attested for contrastive/corrective focus, categorical declaratives, and statements of the obvious, in which the informant is correcting someone. Therefore, these statement types belong to a broader category, which I refer to as *Corrective Focus*, as I explained in greater detail for Montevideo in Section 5.2.3.7. The infrequent use of tritonal L+H*+L in Durazno is only attested for Corrective Focus in the plots. Also, common in NFD1 was peak stunting leading to the increased number of L* in 2nd place.

This stunting may not only be tied to pre-focal peak alignment but also be a way to lessen the impact of the correction. This potential impact reduction was attested in NFD4, as pictured in Figure 5.54 above. Perceptual work and increased tokens of this particular phenomenon are needed to make firm conclusions about this prosodic pattern and its possible implications for politeness.

Excluded from both *Corrective Focus* and *Emphasis* is NFD3b, which, despite its corrective and emphatic potential, it is not the main focalized element of the utterance and is therefore inconsistently focalized. Focalized PWs in such an environment belong to a broader category, which I refer to as *Secondary*. Secondary focalization is optional. In the data, L* was predominantly employed, meaning that narrow focus was not marked, followed by H+L*, which likewise is not indicative of narrow focus. Lastly, L+H* is attested, which demonstrates that a small number of informants chose to emphasize it. The utterances are thus reclassified in Table 5.6 to illustrate these broader narrow focus patterns.

Durazno				
Utterance	**Focus Category**	**1st Place (50%)**	**2nd Place (32.5%)**	**3rd Place (14.16%)**
NFD1	Corrective	L+H*	L*	--
NFD2	Emphasis	L+H* L%	L+¡H* / L+H* !H%	L*
NFD3a	Corrective	L+H* L-	L+H* !H- / L+H*+L L-	H+L*
NFD3b	Secondary	L*	H+L*	L+H*
NFD4	Emphasis	L+H*	L+¡H*	L+<H* / L*+¡H
NFD5	Corrective	L+H* !H%	L+H* L%	L+H*+L
NFD6	Emphasis	L+H*	L+¡H*	--

Table 5.6: Recategorization of Durazno NFDs into Broader Focus Categories

Horizontal peak alignment (i.e., early vs late peaking) and vertical peak alignment (i.e., upstepping vs downstepping) are used in this variety to mark focus. The data demonstrates that the earliest peaks are, therefore, under maximum narrow focus (e.g., L+H*+L), as they mark the

largest intonational contrasts compared to BFDs. These tritonal pitch accents are uncommon in the Durazno data, such that their use may represent cases of exaggeration. Increased peak height in this variety also provides additional salience. Upstepping is used to denote clear, narrow focus, but it is less extreme than early peaking, though it was less common in the Durazno data. These data demonstrate, defined by pitch accent frequency and intended meaning, that narrow focus is on a spectrum, where pitch accent L+H*+L represents maximum focalization and H+L, L*, and DA represent a clear absence of narrow focus. The narrow focus spectrum for Durazno is thus defined in Table 5.7.

Maximum Correction	**Maximum Emphasis**	**Regular Correction / Emphasis**	**Dismissive Correction / Non-focalized**	**Non-focalized**
L+H*+L / L+H* !H%	L+¡H*	L+H*	H+L*	L* / DA

Table 5.7 Durazno Narrow Focus Spectrum

This focus spectrum and the distribution of the data along it suggests that, in Durazno, regular correction/emphasis is the norm, and that maximum correction and maximum emphasis are less frequent. 50% of the plotted informants chose 1st place pitch accents, compared to 32.5% for 2nd place pitch accents, which are frequently the more emphatic productions, determined by the amount of upstepping in 2nd place. In 3rd place, except for NFD5, these pitch accents represent PW that were not focalized as expected. Table 5.8 illustrates the count and percentage of pitch accents included in each rank compared to the count included in the trimmed tri-plot Figures above, which, themselves, account for 85.71% of all Durazno NFD tokens. Table 5.8 illustrates that females produced 58.33% of 1st-place pitch accents, whereas 2nd-place pitch accent selection was nearly equal by gender. Males, instead, employed 70.58% of 3rd-place pitch accents, meaning males produced more non-focalized tokens. These three choices account for

96.66% of the plotted narrow focus pitch accents in Section 5.3.3. This more detailed breakdown reinforces the finding that, as an aggregate, there was no significant variation by gender or age for Durazno.

Durazno								
Utterance	**Focus Category**	**1st Place**		**2nd Place**		**3rd Place**		**Total**
Gender		**F**	**M**	**F**	**M**	**F**	**M**	**_ / total**
NFD1	Corrective	5	5	5	4	0	0	19/19
NFD2	Emphasis	5	4	3	2	1	3	15/18
NFD3a	Corrective	4	1	4	4	0	3	16/18
NFD3b	Secondary	2	3	2	2	1	3	13/15
NFD4	Emphasis	5	2	3	3	2	2	17/17
NFD5	Corrective	6	6	2	0	1	1	16/16
NFD6	Emphasis	8	4	1	4	0	0	24/17
Gender Totals		35	25	20	19	5	12	**116**
		58.33%	41.66%	51.28%	48.71%	29.41%	70.58%	
Grand Total		**60 (51.72%)**		**39 (33.62%)**		**17 (14.65%)**		**116/120 (96.66%)**

Table 5.8 Durazno Focalized Pitch Accent Ranking by Utterance and Gender

5.4 Phonological Comparison of Montevideo and Durazno

Having reviewed in detail the BFD and NFD intonation patterns from Montevideo and Durazno in Sections 5.2 and 5.3, respectively, this section aims to compare the main conclusions of each.

5.4.1 Montevideo vs Durazno BFDs

In Montevideo and Durazno there were no significant differences in BFD nuclear position. Data from both departments showed a preference for L* L% over L+H* L% and that L* L% increased in frequency as statements grew in length. In Durazno, 30% of BFDs were coded as NA, marking a significant increase over Montevideo ($p < .0005$), as pictured in Figure 5.61. Because of this, other points of significance are unreliable for this position.

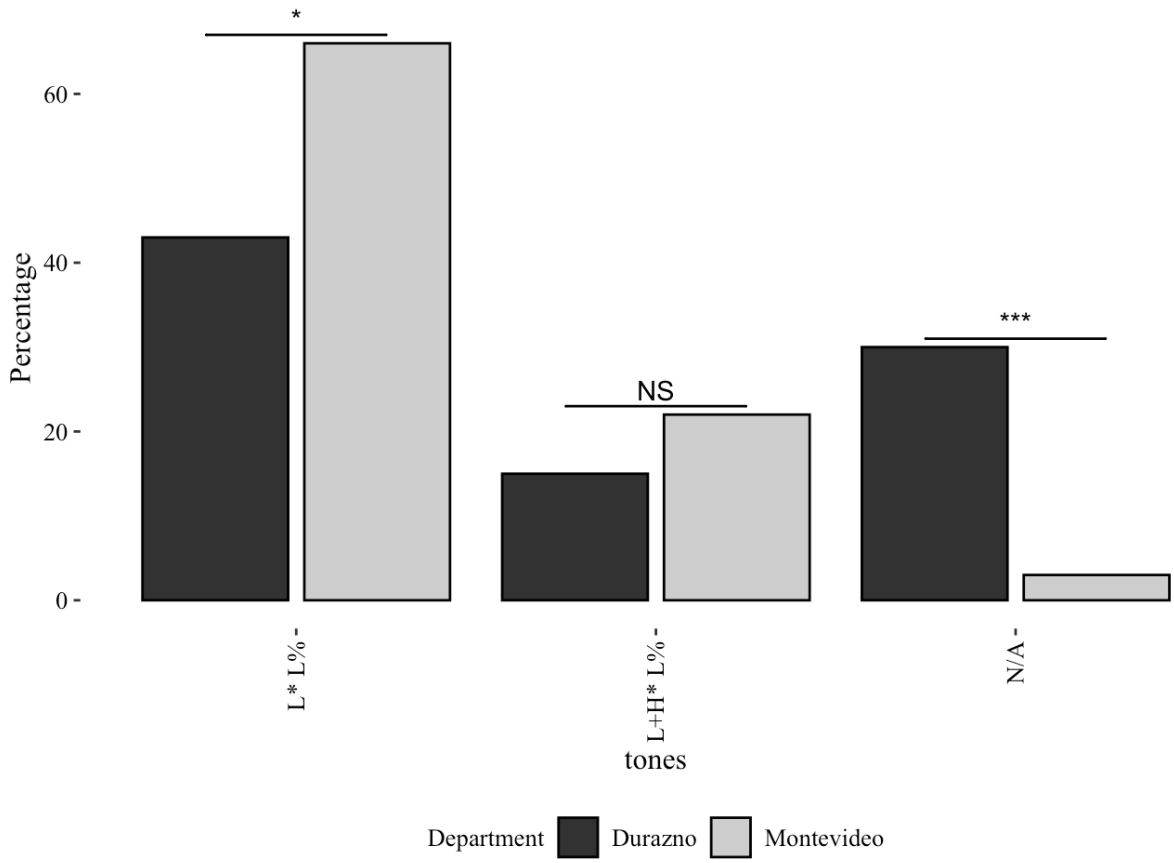


Figure 5.61: Montevideo and Durazno BFD Nuclear Configurations.

Recall from earlier in this chapter that for both Montevideo and Durazno prenuclear broad focus PWs did have statistically significant differences prior to considering social variables. Both showed significant differences between L+H* and L+<H*, and also that these were significantly different from L*+H in Durazno, and from DA in Montevideo, which also means there is a significant difference between these pitch accents and all other pitch accents with lower counts than DA including L*+H. Figure 5.62 shows that, in BFD prenuclear position, there is a significant difference in the percentage of very late peaking L*+H between the two departments ($p < .0005$) with higher frequency in Durazno. The number of L*+H tokens is so much higher in Durazno that the combination of late peaking L*+H and L+<H* surpasses the count of leading L+H* alone. This same combination in Montevideo does not render the same

result due to Montevideo's very low L*+H count, restricted mainly to NFD4 *posible*. The fact that L*+H and L+<H* combined surpasses L+H* in Durazno, together with the significant difference revealed in Figure 5.62 is evident that, in general, and despite the prevalence of L+H*, Durazno speakers peak later and peak later more frequently than Montevideo speakers. Figure 5.62 also demonstrates that the frequency of H+L* and deaccenting are significantly higher in frequency in Montevideo ($p < .05$). The potential reasons and implications of these significant patterns are addressed in Chapter 6.

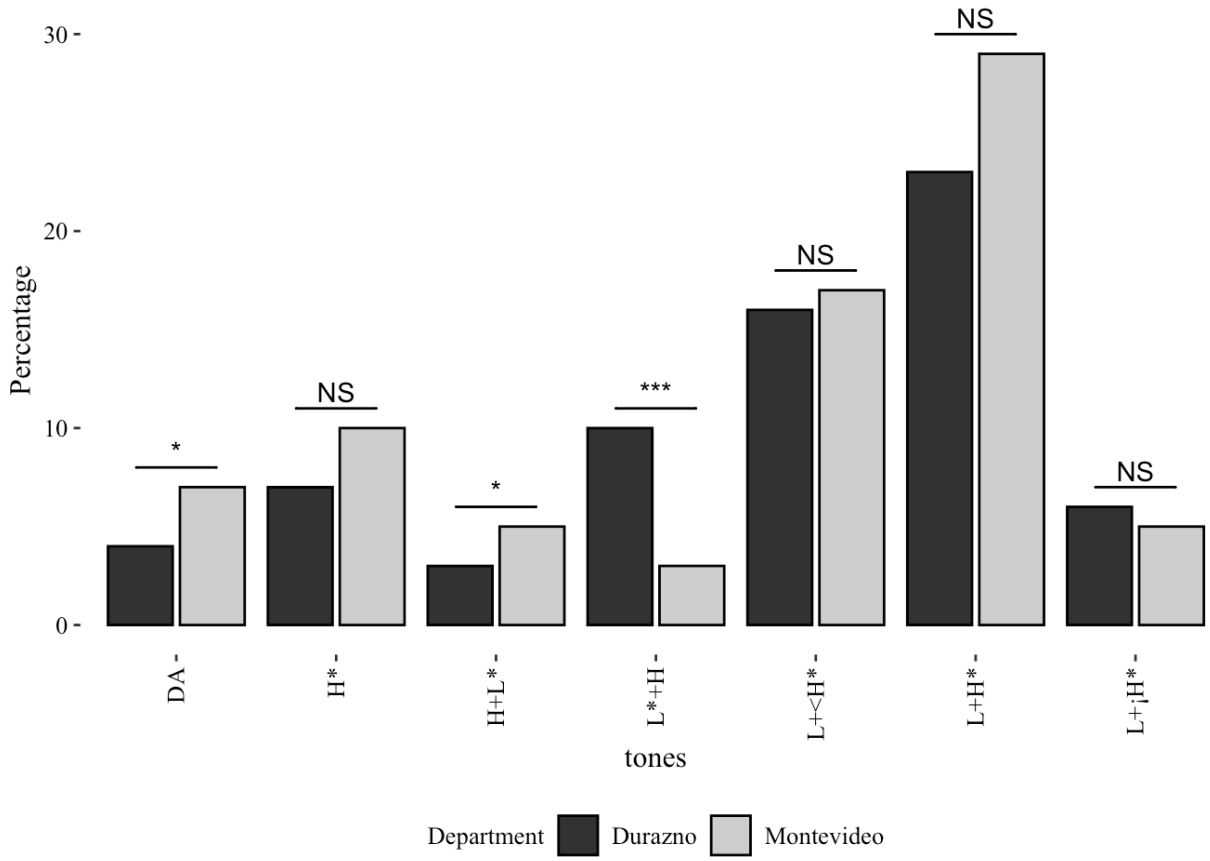


Figure 5.62: Montevideo and Durazno BFD Prenuclear Pitch Accents.

Socially, in Montevideo and Durazno there were significant differences by gender and age. Montevideo females employed L+<H* in prenuclear position with significantly higher

frequency than Montevideo males ($p < .005$) and Montevideo males employed monotonal H* more than Montevideo females ($p < .05$). Montevideo G3 used significantly less L+<H* than G2 ($p < .05$). In Durazno, females also use L+<H* significantly more than males ($p < .05$), whereas Durazno G1, heavily influenced by G1 female informants, uses L+<H* significantly more than G2. Due to the increased number of Montevideo G2 informants relative to the other age groups, the significant increase on G2 productions of H+L* and L+H* ($p < .05$) may be unreliable, especially since G1 and G3 exhibit similar levels for those pitch accents. Therefore, in both Montevideo and Durazno, females lead in late peaking. These findings suggest that late peaking in both departments is, at the very least, stable, furthered by females but cannot be conclusively determined by this data if the preference for L+<H* represents a change in progress that could replace L+H*. Instead, it appears, in both departments that late peaking occurs with higher frequency across social categories in specific syntactic environments and is used to increase visibility of a particular PW without marking narrow focus. Therefore, while L+H* and L+<H* in BFDs appear to be in free distribution in both departments, and vary by gender, there are also environments that select L+<H* (or L*+H in the case of Durazno), over L+H*. Conversely, it could also be argued that since Durazno uses L+H* almost exclusively to mark narrow focus that there may be environments where late peaking over particular BFD PWs is not warranted and for that reason the confluence of pitch accents is seen. For example, non-categorial negation in NFD1 never employs late peaking in either department, thereby padding the overall L+H* count, the same goes for *Qué* in NFD2, where only 1 of 50 informants uses L+<H*.

5.4.2 Montevideo vs Durazno NFDs

Moving ahead with NFDs, Figure 5.63 demonstrates that Montevideo and Durazno differ significantly in how they mark narrow focus. Montevideo employs significantly more tritonal

L+H*+L at ip boundaries ($p < .05$) and at IP boundaries ($p < .0005$). Instead, Durazno prefers L+H* in these positions. Mostly because of NFD5, Durazno also employs significantly more L+H* !H% ($p < .005$) than Montevideo. These findings make sense given the increased late peak alignment of non-focalized broad focus PW peaks in Durazno, therefore not requiring such early peaking as L+H*+L to mark convincing contrast. Whereas in Montevideo prenuclear broad focus PWs more consistently peak early (L+H*) and therefore to mark clear contrast the tritonal is used. NA tokens were also significantly higher in Durazno; however, this was more problematic for BFD utterances than NFD utterances, thereby affecting the study of narrow focus less.

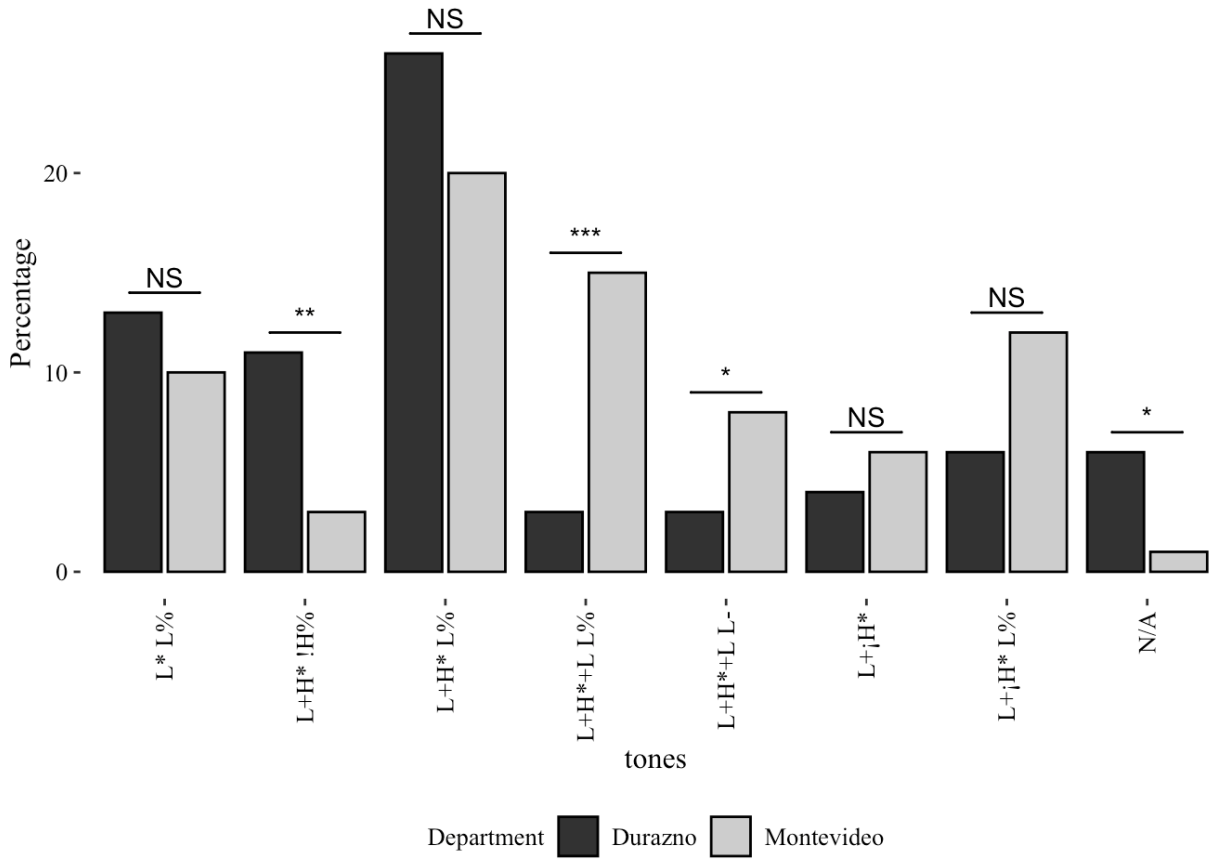


Figure 5.63: Montevideo and Durazno Focalized Pitch Accents.

The findings displayed in Figure 5.62 support the notion that narrow focus in both departments is on a spectrum and that speakers from the two departments employ the spectrum differently. By looking at the narrow focus spectrums side by side, as pictured in Table 5.9, we can see the differences more clearly.

Montevideo					
Clear Correction	**Clear Emphasis**	**Mild Correction / Emphasis**		**Dismissive Correction / Non-focalized**	**Non-focalized**
L+H*+L	L+¡H*	L+H*		H+L*	L* / DA
1st	1st	2nd	2nd		
Durazno					
Maximum Correction	**Maximum Emphasis**	**Regular Correction / Emphasis**		**Dismissive Correction / Non-focalized**	**Non-focalized**
L+H*+L / L+H* !H%	L+¡H*	L+H*		H+L*	L* / DA
2nd (NFD3a)/ 1st (NFD5)	2nd	1st	1st		

Table 5.9: Comparison of Montevideo and Durazno Focus Spectrums.

Therefore, Montevideo employs a more nuanced system for marking narrow focus by favoring and consistently applying different pitch accents to Corrective Focus than to Emphasis. In Montevideo, what would be a less convincing degree of focus, L+H*, is used convincingly in Durazno. This difference could potentially lead speakers from Durazno to feel that Montevideo speakers exaggerate, either in general due to their increased use of L+H* for broad focus or by consistently using L+H*+L and L+¡H* to mark corrective focus and emphasis, respectively.

NFD5, *¡Con Manuel!*, is an interesting point of comparison between the two departments because the required interpretation was easily understood and interpreted by all informants. In Montevideo, 20% of speakers used L+H* !H% as alternative to L+H*+L, which they used 53.33%, whereas in Durazno L+H* !H% was used 75% of the time and L+H*+L only 12.5% of

the time. Therefore, there is overlap and patterns of one department are possible in the other, but there are also definitely significant preferences that differ between them.

Socially, Montevideo females employed tritonal L+H*+L significantly more than Montevideo males. Seeing as Montevideo females also peak later in BFDs, the contrast between female broad and narrow focus fully exhausts the horizontal peak alignment range. This finding goes contrary to what one may assume, since females could have marked contrast reliably without the tritonal. However, Montevideo males, who, as a group, favor L+H* in BFDs would have more to gain from the tritonal in NFDs but use it less. Since this dissertation requires L+H*+L to have a guided fall, the fact that males use the tritonal less suggests that their falls are more frequently unguided. In contrast, in Durazno, not only is tritonal L+H*+L scarce, but there are also no overall trends for narrow focus based on gender or age, suggesting that Durazno intonation is more uniform than Montevideo intonation. Stated another way, there is greater variation in the intonation of Montevideo compared to Durazno. That said, some of the most unique F0 contours in Durazno were produced by older rural informants. More research is required in this area to fully understand rural speech.

5.5 Conclusion

This chapter explored the geographic and sociolinguistic variation present in the data. The results present significant differences in peak alignment of both BFDs and NFDs between Montevideo and Durazno and department internally, with increased internal variation in Montevideo, especially in terms of gender. Montevideo speakers tend to apply different pitch accents to mark corrective focus compared to emphasis. Whereas, in Durazno, this difference went unmarked in most speakers. Additionally, Durazno speakers tend to employ pitch accents to mark narrow focus that Montevideo speakers use when marking focus less enthusiastically.

Chapter 6: Discussion

6.1 Introduction

This chapter has several purposes. In Section 6.2, I apply the findings of Chapter 5 to the research questions outlined in Chapter 3. In Section 6.3, I discuss the findings in Chapter 5 and how they interact with the linguistic influences covered in Chapter 2. In Section 6.4, I compare these findings to other intonation studies conducted in Uruguay and beyond. Finally, in Section 6.5, I discuss the results of the linguistic impressions section of the Exit Survey and how these impressions interact with the findings in Chapter 5.

6.2 Application of Findings to the Research Questions and Predictions

In Section 4.2, the objectives, research questions, and predictions were laid out. In this section, I address each. Regarding objectives, Chapter 5 provides a phonological description of the intonation patterns used in the Uruguayan departments of Montevideo and Durazno, as they occur in Broad-Focus Declaratives (BFDs) and Narrow-Focus Declaratives (NFDs). Chapter 5 finds sociolinguistic variation in the intonation patterns of both Montevideo and Durazno according to the social variables of age and gender. Section 5.4 compares the patterns of each department. In exploring the role of syntax I found that phrase-initial PWs and the first PWs with communicative value peak late as a method of increasing their visibility without marking narrow focus. Also, there are PWs for which F0 never peaks late because they do not require such visibility. The building blocks of a sentence necessarily interact, and not all broad-focus prenuclear pitch accents are identical; to do so would reduce the productivity of intonation as a means of creating nuance. Grammar and communicative value play a role in the pitch accent selection for each phonological target. As mentioned previously, Face (2003) found that deaccenting was common in spontaneous Spanish speech, especially among verbs, adverbs, and

determiners. Despite being stressed words, there are times to overlook them prosodically in the sentence in favor of another word with higher communicative value to the speaker.

This brings us to the research questions:

Q1) What are the Sp_ToBI pitch accents and boundary tones that comprise the inventory of BFD and NFD patterns in the speech of Montevideo and Durazno, Uruguay? How do the patterns from each department compare to one another? How does this comparison inform our understanding of the linguistic influences in the region? What, if any, effects do the social variables of age and gender have on the frequency of these pitch accents and boundary tones?

A1) Montevideo and Durazno employ the following pitch accents in BFD and NFDs: monotonal L*, H*, bitonal L*+H, L+<H*, L+H*, L+¡H*, H+L* and tritonal L+H*+L, and variations of these with upstepping and downstepping. Both departments also employ the following boundary tones in BFD and NFDs: L-, H-, !H-, L%, H%, !H%, (and to a negligible degree: LH%, L!H%). However, some phonological targets are used with much greater frequency than others. Chapter 5, and specifically Section 5.4, provides a brief yet detailed comparison of these phonological targets for both departments and highlights sociolinguistic variation in the data. I refer the reader to Section 5.4 for a complete accounting and to the conclusions for Q2 below.

Q2) How does the intonation of Montevideo and Durazno, Uruguay compare to that of Buenos Aires Spanish (BAS) and Castilian Spanish (CS)?

   a. Does the speech of Montevideo or Durazno, Uruguay, follow the previously mentioned BFD early prenuclear peak alignment (L+H*) tendencies attested in BAS or the delayed alignment tendencies (L+<H*) attested in CS?

A2a) The relationship between L+H* and L+<H* is far more nuanced than often discussed. L+<H* is attested in BAS chiefly among female speakers (Enbe & Tobin, 2008). Overall, L+H* is more common than L+<H* in Montevideo, making it more like BAS. However, L+<H*, like in BAS, is more frequent in female informants. In Durazno, L+H* is frequent but less frequent than combined bitonal pitch accents L*+H and L+<H*. L*+H is used significantly more in Durazno than in Montevideo, demonstrating that Durazno favors late peaking over early peaking. Therefore, Durazno intonation is more CS-like in terms of intonation due to its preference for late peaking.

b. Does the speech of Montevideo or Durazno, Uruguay, follow the previously mentioned BFD long-fall nuclear peak alignment tendencies (H+L*) attested in BAS or the early peaking alignment (L+H*)/monotonal low pitch accent (L*) tendencies attested in CS?

A2b) H+L* is very infrequent in Montevideo and Durazno nuclear position, based on how Chapter 4 defines L* and H+L*. L* is the most common nuclear pitch accent in both departments for non-focalized PWs. Coming in a distant 2nd is L+H*, whose frequency is increased in shorter sentences. In this way, Montevideo and Durazno differ from BAS and are more like CS. This lack of H+L* in Uruguay may be one of the indicators that allows speakers to differentiate between the River Plate varieties. Many instances of H+L* in the data are found in prenuclear position, mainly in BFD2, where F0 falls during the auxiliary verb está; for more on this, see Section 4.4.2.1.2.

c. Does the speech of Montevideo or Durazno, Uruguay, employ the previously mentioned tritonal pitch accent (L+H*+L) to mark narrow focus in NFDs as attested in BAS, or do these varieties mark narrow focus with the early peaking pitch accent L+H* attested in CS? Do these varieties use different pitch accents or boundary tones to convey different types of narrow focus? Do upstepped peaks (¡) and boundary tones play a role in marking narrow focus?

A2c) In NFDs, Montevideo informants make significant use of tritonal pitch accent L+H*+L like BAS for corrective focus and prefer L+¡H* for emphasis. The tritonal is more consistently used by female informants. Durazno informants rarely use the tritonal pitch accent L+H*+L, which makes them less like BAS than Montevideo speakers. Instead, Durazno employs pitch accent L+H* for narrow focus like CS. Boundary tone L% is the most frequent in BFDs and NFDs in both departments. The principal exception is in NFD5 Statement of the Obvious, which consists of a focalized oxytone word in nuclear position. In Durazno, NFD5 employs boundary tone !H% almost unanimously. !H% is also attested in Montevideo in this utterance but at a reduced rate. Upstepping is used in both Montevideo and Durazno to mark emphasis, but Montevideo uses upstepping to mark emphasis more than Durazno.

As predicted, Durazno and Montevideo differ intonationally. Montevideo employs F0 contours that are more like those of BAS. This similarity may be due to the immigration induced language contact with Italian between 1850 and 1930 as work done on BAS claims (Colantoni, 2011; Colantoni & Gurlekian, 2004; Goebel, 2010), or it could be the result of koineization as discussed in Chapter 2, which would take into account the presence of multiple languages and

varieties present in the region and arrive at these results through other processes. On the other hand, Durazno, as predicted, employs less BAS-like intonation which correlates with the decreased influence of language contact in the region and its rural origin. As capital cities, Buenos Aires and Montevideo have maintained significant relationships that Durazno never had with Buenos Aires. Therefore, these capital cities and urban centers are expected to share greater linguistic similarities. However, with more Italian immigrants eventually settling in Buenos Aires than in Montevideo, the intensity of contact in BAS was higher which could lead to the selection of different linguistic features.

It was also predicted that social variation regarding gender would be seen, as has been documented in BAS intonation (Enbe & Tobin, 2008). Gender and age have proven to be significant variables in Montevideo and Durazno. Females in Montevideo use L+<H* significantly more than Montevideo males, whereas males use monotonal H* significantly more than females. In narrow focus, Montevideo females also employ tritonal L+H*+L significantly more than males. This finding suggests that females mark greater intonational contrasts, a conclusion that has been repeatedly mentioned throughout Chapter 5. In Durazno, females employed L+<H* significantly more like in Montevideo, as did Durazno G1 speakers, largely due to G1 female speakers. There were no significant differences in Durazno NFDs by gender or age.

In Montevideo, conclusions by age are less clear due to the increased number of G2 informants, but as is, G3 informants use L+<H* the least, marking a significant difference compared to G2. This finding, at the very least, permits the hypothesis, supported by the linguistic impressions of some VULC informants, that in the past, MS and BAS were more similar, more “Italian” sounding in terms of intonation, and that this is preserved in G3.

Continuing with this hypothesis, the increase in late peaking L+<H* in earlier generations could stem from the population shift in Uruguay's interior as Uruguay's agricultural sector made technological advances that forced rural laborers to move to the cities and, in many cases, to Montevideo in search of higher education and employment opportunities. L+<H* has clearly been preserved in Durazno and, therefore, is likely in other interior departments. This population shift would have increased Montevideo's contact with late peaking L+<H*, which could have influenced the younger generations. Also, since females in both departments favor L+<H*, one could hypothesize that females may have been influential in this change from L+H* to L+<H*. Females are also credited with the change in progress from *zhesímo* to *sheísmo* in Buenos Aires (Chang, 2008; Fontanella de Weinberg, 1978) and Uruguay (Canale & Coll, 2016; Michnowicz & Planchón, 2020; Thun & Elizaincín, 2000). Only the older generation, mostly males, maintain the voiced pronunciation. Apart from finding that G3 uses L+<H* significantly less, other differences by age in Montevideo are not significant and mostly balanced when examining NFDs by utterance. Additional research is warranted into the speech patterns of G3, for if the increased late peaking tendencies of G1 and G2 continue as they age, like *sheísmo*, late peaking may grow increasingly common.

This being the first study of Durazno intonation, there are no prior accounts for comparison. It cannot be known at this time if the amount of L+H* in Durazno is a new development and if the Durazno late peaking tendencies are being replaced rather than preserved. Since there is no significant age-related variation in the Durazno data, it suggests that a shift based on age is either not occurring or that it is affecting all ages equally, which is unlikely. Since informant selection excluded, where possible, informants that have lived significant time in other departments, especially Montevideo, speech patterns of those that have moved away and

returned with new speech patterns that could influence the community are not accounted for in this dissertation. Additional research is needed for these transplant speakers. Many of the VULC informants living and recorded in Montevideo are originally from other departments; they are excluded from the present analysis for that reason. Such speakers could demonstrate just how much speakers from the interior assimilate linguistically when moving to Montevideo.

6.3 Considerations on the Provenance of the Uruguayan Spanish Intonation

As covered in Chapter 2 regarding the origins of the Uruguayan population and the early European linguistic influences in the region, it stands to reason that the Uruguayan intonation patterns that reflect those of BAS, could likewise be a product of immigration induced language contact in Uruguay, whether this is the result of prosodic transfer from Italian as previous literature on BAS intonation suggests or the result of koineization as discussed in Chapter 2, requires additional study beyond the scope of this dissertation. Montevideo and Durazno, as covered extensively in Chapter 2, differ greatly in size and linguistic influence. As such, Montevideo, which experienced increased contact with Italian immigrants, exhibits intonational features associated with the imposition of Italian intonation on Spanish (e.g., early peaking in BFDs with pitch accent L+H* and using the tritonal pitch accent L+H*+L to mark narrow focus). However, Montevideo Spanish does not favor H+L* in nuclear position as attested in BAS and attributed in the literature to Italian influence. This suggests that while Montevideo has intonational features that the literature claims stems from contact with Italian, it is less "Italian" sounding than BAS, which could be expected given the increased intensity of contact with Italian immigrants in Buenos Aires, which had more land available (Goebel, 2010).

This dissertation has demonstrated that narrow focus is on a spectrum and that, in Montevideo, the tritonal is mostly for corrective focus, whereas emphasis is commonly marked

with L+¡H*. Additionally, speakers in Montevideo use L+H* to mark narrow focus, but this seems to express a milder focus, which, depending on the situation and the attitude of the speaker, may be sufficient to convey narrow focus. Durazno, on the other hand, is categorized by the use of increasingly late peaks and a nearly categorical use of L+H* with corrective focus and emphasis with greater emphasis added through upstepping. Tritonal pitch accent L+H*+L is mostly unused in Durazno. Peaking so early in Durazno is unnecessary to mark contrast due to the prevalence of late peaking L*+H and L+<H* in BFDs, which can easily contrast with L+H* as is done in CS. Therefore, it seems clear, regarding intonation, that Durazno favors intonation patterns that are more like those presumably employed at its founding. In contrast, MS intonation appears to have evolved presumably as a result of language contact and ongoing contact with Buenos Aires, which similarly evolved, though perhaps to a greater degree.

6.4 Comparison of these Findings to Others Found in Uruguay and Beyond

Recall from Chapter 3 that intonation studies in Uruguay are few (Araujo, 2013; Correa & Rebollo Couto, 2012; Cunha et al., 2008; Felismino dos-Santos, 2008, 2012; Machado & Escobar, 2023; Rebollo Couto et al., 2014) and even fewer treat BFDs and NFDs (Araujo, 2013; Felismino dos-Santos, 2008; Machado & Escobar, 2023).

Felismino dos Santos (2008) recorded two Montevideo females saying *Francisco vive en Europa* (Francisco lives in Europe). Based on my reanalysis of the F0 contours provided, to increase comparability, Montevideo females employed L+<H* for non-focalized prenuclear PWs (i.e., *Francisco*, *vive*) and a downstepped L+!H* in non-focalized nuclear position (i.e., Europa). Based on the present findings, the two Montevideo females were expected to peak late over Fransisco in phrase-initial position. Verbs can be less predictable, and while L+H* is certainly an option, Felismino dos Santos did not find L+H* in prenuclear position. This is likely a result of

only having one target sentence and only two informants, meaning just two 2-second audio clips. As the only other study to analyze NFDs in Montevideo, she found that females mark narrow focus, in this case, emphasis, by employing L+H*. This emphasis was placed on each of the PWs separately, each resulting in the same pitch accent. Based on the present study, L+¡H* would have been most common, followed by L+H* in cases of milder emphasis. Naturally, *Francisco*, being the first PW, could not be classified as upstepped, but the others could have been but were not. These findings by Felismino dos Santos (2008) align with CS intonation, but the sample is too minimal to make predictions about Montevideo intonation generally.

Araujo (2013) counts on six Montevideo G1 informants, three males and three females. Araujo combines L+H* and L+<H* under one pitch accent, namely L+<H, which now combined accounts for 88% of the prenuclear PWs. However, the distribution was 1:1.2, meaning if there were 50 L+H*, there were 60 L+<H*. In the present data, by approximation, the ratio would be inverted for G1, but this all depends on the number of PWs in the utterance and what those PWs were. If, in the present study, L+H* and L+<H* were combined, they would indeed constitute a vast majority of prenuclear PWs. Araujo's high number of L+H* in nuclear position disagrees with the present findings, but this comes down to how Araujo defined each pitch accent. In cases that would be L*, Araujo labeled these as deaccented. Araujo found the mixing of L+H* and L+<H* in prenuclear position to be frequent and pitch accent L*+H to be very infrequent in Montevideo, which align with the present findings. Araujo did not find variation according to gender, which is unequivocally a result of combining L+H* and L+<H*, which this dissertation finds to be the key point of divergence between males and females in BFD prenuclear position. These findings, as coded, are also in keeping with the intonation patterns described for CS, while other accounts suggest the L* is more common in CS in nuclear position.

Machado and Escobar (2023) include 30 female informants recording a task where each target phrase is only two words, one prenuclear and one nuclear PW. This dissertation suggests that in phrase-initial position, late peaks are common even among speakers who typically peak early. Therefore, the syntactic structure of the task leads the informants, who, as females, already regularly peak late, to have no other choice. In the few instances where this PW was produced as L+H*, these were categorized as non-neutral utterances, and given the syntactic environment, where late peaking is the norm, these instances were likely produced with a narrow focus. Whereas as Araujo (2013) combined L+H* with L+<H*, Machado and Escobar (2023) combined L+<H* with L*+H in favor of L*+H. While both of these are late peaking, they have been shown to be phonologically contrastive in other varieties (Willis, 2003). This dissertation, like Araujo (2013), finds L*+H to be rare in Montevideo but statistically more frequent in Durazno. This distinction would have been erased if this dissertation had grouped L+<H* with L*+H. Machado and Escobar (2023) and this dissertation coincide in the pitch accent choice for nuclear position where L* is overwhelmingly preferred, a somewhat unexpected finding given the short length of the target phrases. Lastly, since only female intonation was considered, no gender comparison was made. Had males been included, the results would not have varied since males also peak late in the phrase-initial position.

6.5 Comparison of Acoustic Results with Impressionistic Descriptions

Of the 533 VULC informants from across the country, 99% affirm that people speak differently in different parts of Uruguay, and Montevideo was very frequently named as a department where residents speak differently. Also, commonly noted was the difference between rural and urban areas. When asked how they see BAS compared to Uruguayan Spanish (UYS), 94.5% claim that their speech differs from that of Buenos Aires and 92.2% claim they could

distinguish recordings from each country. The tritonal pitch accent is much more common in Montevideo than in Durazno, which is in keeping with the impressions by VULC informants that speakers from Montevideo sound more *porteño* than those from the interior. However, the near absence of nuclear H+L* throughout Uruguay substantiates the impressions shared that BAS speakers sound more Italian than Montevideo speakers.

Of the 533 VULC informants recorded, 167 or 31.33% affirmed that they have thought, after saying something, that what they said sounded *porteño*. 120 of those 167 informants said that it was how they said it and not what they said that made them think they sounded *porteño*. In Montevideo, 38 of 67 said yes; of those 38, 31 said it was how they said it. In Durazno, only 3 informants said yes, and 2 said it was how they said it. This suggests that Montevideo intonation requires less modification to sound porteño, and that Durazno intonation is so far removed from porteño Spanish that it does not happen by accident. In Uruguay, there is a common warning *"¡Cuidado! te sale el porteño"* roughly translated as "Careful, you are sounding like a *porteño*" which suggests that, impressionistically, there is a difference beyond vocabulary.

6.6 Conclusion

This chapter underscores the potential role of immigration induced language contact with Italian (and other languages that employ similar patterns) and the on-going contact with BAS on the intonation of Montevideo, and, by the same token, the lack of such influence in Durazno, though further research is needed to fully understand the nature of this change. Additionally, this chapter demonstrates why previous publications on Montevideo intonation found patterns that disagree with the findings presented in this dissertation. This explanation further highlights the positions taken in this dissertation to: 1) include a large number of informants 2) include males and females of all adult ages 3) employ tasks that permit syntactic complexity 4) employ tasks

that keep informants innocent to the study's objectives 5) employ tasks that mimic naturally occurring target phrases 6) preserve pitch accent categories to ensure variation remains visible, and 7) study BFDs and NFDs together to understand what aspects of intonation are phonologically contrastive, and how intonation is manipulated to mark the required contrast, and which constitute sociolinguistic variation. Finally, I encourage future research to seek informant impressions. These can substantiate findings, motivate future hypotheses and provide insights unavailable to investigators not living full time in the target community.

Chapter 7: Conclusion

7.1 Summary

After a tumultuous and war-riddled founding, Uruguay, which had been a point of contention between Argentine criollos and the Portuguese in Brazil, gained its independence with the help of British mediation and soon became a popular destination for European immigrants, mostly from northern and southern Italy and the bilingual regions of Spain. The massive influx of Italians both in Uruguay, principally Montevideo, and Argentina, mainly Buenos Aires, led to a language contact situation that left an indelible mark on the linguistic landscape of the region. As the much larger city with greater opportunities for private land ownership, Buenos Aires soon began to attract a larger number of Italian immigrants than Montevideo. However, records also show movement between Buenos Aires and Montevideo and evidence that Italians would frequently return to Italy and work in the River Plate region seasonally. The influence of European immigrants is evident in the architecture, music, cuisine, and, of principal interest, the language. Evidence of Italian is seen in *lunfardo* speech, some of which persists and is regularly used in present-day Uruguayan Spanish.

One of the first descriptions of Argentine Spanish intonation was that it was Spanish spoken with Italian intonation. Numerous studies have documented Buenos Aires Spanish (BAS) intonation, but Uruguay has been mostly overlooked for intonation. Too frequently, the linguistic findings of BAS are assumed to apply to Montevideo. The language contact situation with Portuguese in northern Uruguay, mainly in Artigas and Rivera, has been heavily studied, as has Rocha, for its continued preference for *tuteo* over *voseo*. The rest of the country is linguistically unexplored apart from the linguistic atlas that canvased the entire country in the 1990s, which was published in 2000.

In 2022, I canvased the majority of Uruguay and recorded a total of 533 informants; this dissertation focuses on 50 of them, 30 from Montevideo and 20 from Durazno, a department in the center of the country. Equal numbers of males and females were chosen across three age groups. Montevideo was chosen as the primary urban center, and Durazno was chosen for its isolation from neighboring countries. Each informant carried out various tasks; the task analyzed in this dissertation is the Discourse Completion Task (DCT), which provides each informant with a situation according to which they had to act out a target phrase authentically. This task is designed for the study of intonation, and the combined 9 utterances pertaining to broad-focus declaratives (BFDs) and narrow-focus declaratives (NFDs) were analyzed using Praat and coded according to the Spanish Tones and Break Indices (Sp_ToBI). Sp_ToBI establishes a series of pitch accents and boundary tones used to standardize the analysis and increase comparability.

After coding all 9 utterances for each of the 50 informants, patterns in the data were sought to establish general trends in the data. A Poisson regression was run to determine the statistical significance of these trends, and ultimately, it became evident that Montevideo exhibits greater variation than Durazno. Montevideo was found to share some, not all, intonational characteristics with Buenos Aires, which have been presented as a product of Italian influence in the region, whereas Durazno intonation exhibits more commonality with Castilian Spanish, a variety commonly used for comparison since its features often appear in non-contact Spanish varieties. These differences are described in terms of early and late peaking. Italian peaks earlier than Spanish, so the unexpected early peaking in Buenos Aires and Montevideo is attributed to Italian influence, however others would argue that it has less to do with the language in contact and instead on contact in general, where the intensity of contact is sufficient for language change to occur. Durazno, however, peaked later than Montevideo overall.

Because this dissertation counts on such a diverse group of informants, apart from the linguistic trends by department, this dissertation is the first to include enough males and females to see intonational variation by gender and age in Montevideo and Durazno. The patterns show that females in both departments peak later more frequently than males and, also, in Montevideo, that females mark greater intonational contrasts, such that they use pitch accents that convey maximum corrective and emphatic focus more consistently than males. The findings also suggest that Montevideo speakers over 60 peak late the least, which could indicate that previous generations preferred other intonational patterns.

7.2 Limitations of this Study and Future Research

This dissertation was critical of the limitations found among the other studies on the topic of Uruguayan intonation. Limitations are part of every study, and this dissertation has its own. This dissertation employs the DCT created for the Interactive Atlas of Spanish Intonation, which has been used for years across many varieties; as such, it is tried and tested. I altered the prompts minimally from those used to study BAS intonation in the hopes of being able to compare apples to apples. In so doing, I neglected to make improvements to the target sentences that, looking back, could have been beneficial, especially in the cases of stress clash, which made it difficult to see the peaks of each prosodic word clearly. I also would have used additional target phrases to have more tokens of the same utterance type with the same intended interpretation. While having each informant say the exact same target phrases makes comparisons much easier, these findings are limited by the structure of the 9 phrases under study, which, no matter how many informants are analyzed, the study is still limited to those 9 sentences. Since the data collection encompassed the entirety of the DCT, moving forward, I intend to explore the intonation of the remaining utterance types.

Countless questions remain as well as different perspectives and manners with which to approach these questions. Here I will mention a few that relate to the findings of this study.

1) Spontaneous Uruguayan intonation needs to be compared to these more controlled tasks to better understand the task effects.

2) Regarding analyses, the use of L+H* for broad focus and narrow focus in the same variety needs to be researched phonetically, the role of peak alignment, duration or intensity needs to be evaluated in Uruguay.

3) The nature of syntactic positions like phrase-initial position that strongly correlates with late peaking should be further investigated, the 9 sentences analyzed in this study are not sufficiently varied to fully test this hypothesis.

4) This dissertation includes 4 rural males in Durazno, and I plan to further explore rural speech, which may require additional data collection for which I may need to train members of the rural community to help me carry out the recordings.

5) Perception work on intonation is needed to determine the functional role of the subtle nuances in peak alignment and for determining the practical importance of the patterns found. To do this, I hope to collaborate with the best institutions possible to determine the salience of different factors. There is much work to be done.

6) Future work should move toward disentangling imposition/transfer from contact and possible koineization for Spanish intonation.

Appendix A

UNIVERSITY OF WISCONSIN-MADISON

Research Participant Information and Consent Form

Uruguayan Informants

Title of the Study: Uruguayan Speech Patterns

Principal Investigator: Rajiv Rao (phone: (608) 262-2093) (email: rgrao@wisc.edu)

Student Researcher: Brandon Goodale (phone: (608) 262-2093) (email: bgoodale@wisc.edu)

DESCRIPTION OF THE RESEARCH

You are invited to participate in a research study about the Spanish spoken in Uruguay.

You have been asked to participate because you are a Uruguayan adult currently residing in Uruguay.

The purpose of the research is to better understand how different people speak throughout Uruguay and how different speaking styles affect how individuals speak.

This study will include Uruguayan Spanish speakers of different ages, sexes, education levels from throughout Uruguay.

This research will be conducted in a quiet location (e.g., a school, church, etc.) near your residence. If you are willing, and your home is quiet, this study could be carried out there as well with your verbal permission.

To carry out this research audio recordings will be made. These recordings will be used by the Study Team to better understand the linguistic qualities of Uruguayan Spanish.

These recording will be kept indefinitely as part of linguistic corpus to be accessed by researchers. However, only the Study Team will be able to link your recordings to your identifiable information. Your identifiable information will not be shared with outside the Study Team and is only collected in order to facilitate possible future research.

I agree to share audio recordings with the Study Team and to allow it to maintain possession of them, given that my name and/or other personal information will never be used when discussing them.

☐ Check this box if you agree.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to participate in this research following this consent form you will be asked to complete (written or orally) an entrance survey about your residential history and demographic

information (age, sex, education). This survey will also ask about languages you speak or have studied and significant travel outside of Uruguay.

Following the entrance survey, you will participate in a series of speaking tasks for which the audio will be recorded. These include:

1) **a semi structured interview**: the purpose of this speaking task is to get to know you as an individual and learn about your community. Topics may include things like: the community and how it has changed over the years, the activities people do there for fun, possible city/town museums, life growing up, vacations, etc.). Also, during this task feel free to ask me any similar questions you may have.

2) **a discourse completion task:** the purpose of this more structured task is to prompt you to respond to typical scenarios. You will be given a series of typical scenarios and asked to say a specific phrase.

3) **a reading task:** For this highly structured task you will read a short fable titled "The North Wind and the Sun" by Aesop.

Following the speaking tasks, you will be asked to complete an exit survey (written and/or orally) consisting of a semi structured interview about language, its forms and uses.

You will be asked to complete 2 surveys and a three speaking tasks.

These tasks will be completed during a single session.

Your participation will last approximately 1 hour total.

ARE THERE ANY RISKS TO ME?

There is a slight risk of a breach of confidentiality and that you may reveal personal, sensitive, or identifiable information.

The pre-selection contact information will be linked in an encrypted way to the data you provide in this study. Only Rajiv Rao and Brandon Goodale will have access to the key. This coded link will be kept for two reasons 1) to ask you if you are willing to participate in future studies and if you are 2) to be able to compare your voice now with that of the future. If you choose not to participate or withdraw from this study, your pre-screening contact information will be removed. A pseudonym will be attached to the data you provide to keep it confidential. The Study Team will link your survey data to your voice recordings. The data will be stored securely in accordance with university policy.

If during the recording of the semi structured interview you share names or other identifiable information these sections of the recording will be masked to protect the identity of all involved.

ARE THERE ANY BENEFITS TO ME?

We don't expect any direct benefits to you from participation in this study.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

Your identifiable information will not be included in publications or presentations as your participation is confidential.

Your data will belong to the Study Team listed above. The data you provide will be de-identified and may be used for future research studies or distributed to other investigators for future research studies without your additional informed consent.

If quoted in publications you will not be named.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

You may ask any questions about the research at any time. If you have questions about the research after you leave today you should contact the Principal Investigator Rajiv Rao at +1 (608) 262-4712 or by email rgrao@wisc.edu. You may also contact the student researcher, Brandon Goodale at +1 (608) 262-2093 or by email bgoodale@wisc.edu.

If you are not satisfied with the response of the research team, have more questions, or want to talk with someone about your rights as a research participant, you should contact the Education and Social/Behavioral Science IRB Office at 608-263-2320.

Your participation is completely voluntary. If you begin participation and change your mind you may end your participation at any time without penalty.

By checking the box below, you indicate that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate. If you wish to have a copy of this form please print one before moving on with the survey.

☐ Check this box if you consent to participate.

_____

Date

Appendix B

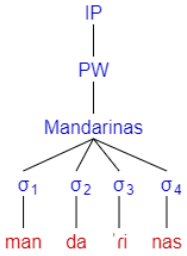
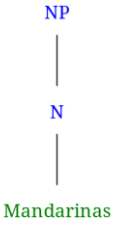
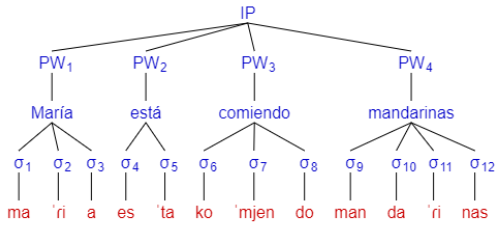
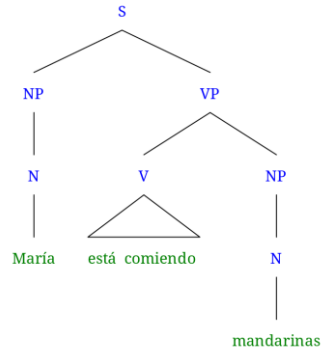
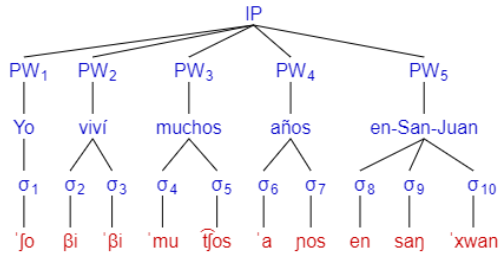
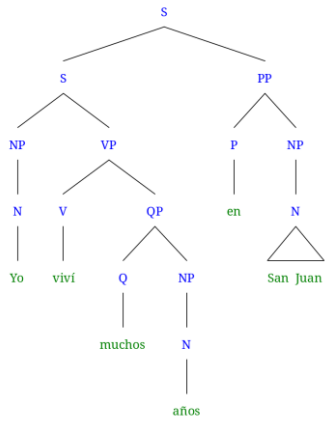
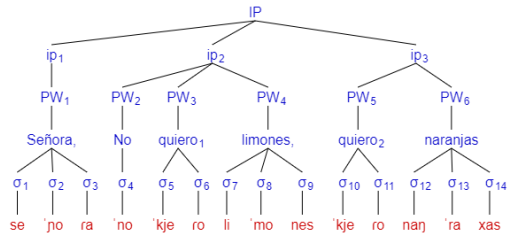
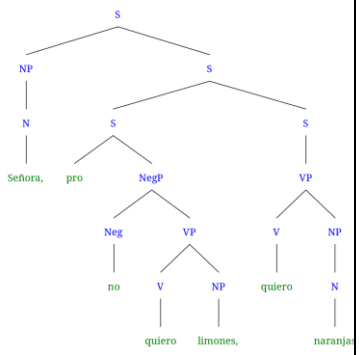
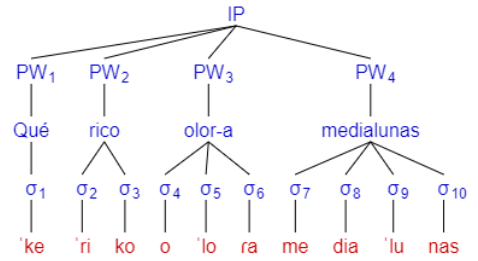
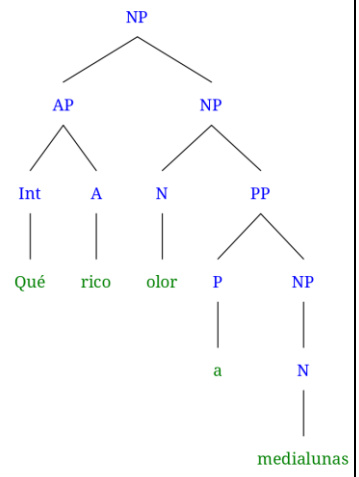
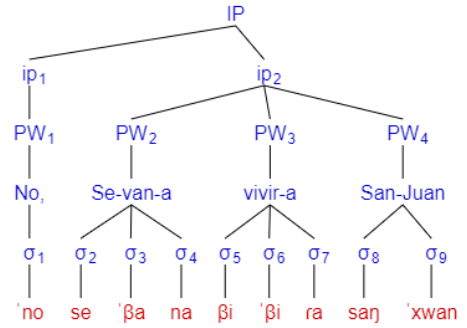
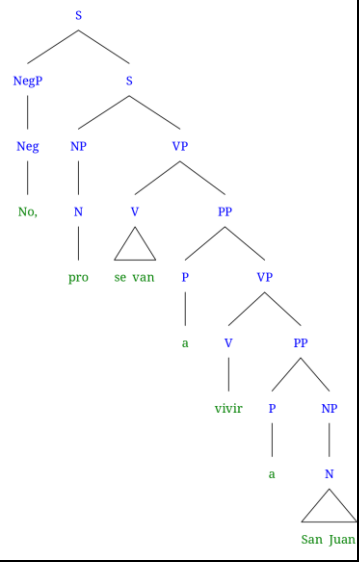
Utterance name	Utterance	Prosodic Hierarchy	Syntactic Hierarchy
BFD1	Mandarinas.		
BFD2	Maria está comiendo mandarinas.		
BFD4	Yo viví muchos años, en San Juan.		

Table 8.1: Prosodic Hierarchy and Syntactic Structure for BFD Target Phrases

Utterance name	Utterance	Prosodic Hierarchy	Syntactic Hierarchy
NFD1	¡Señora, no quiero limones, quiero naranjas!		
NFD2	¡Qué rico olor a medialunas!		
NFD3	**¡No, se van a vivir a San Juan!**		

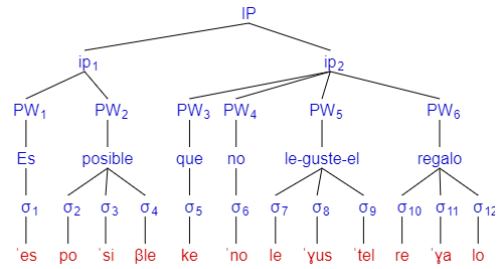
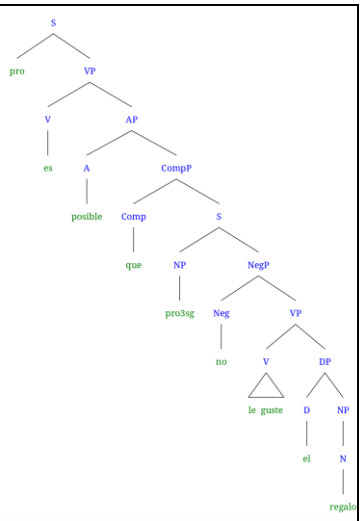
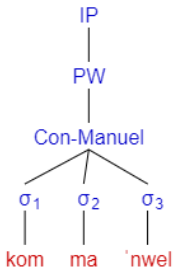
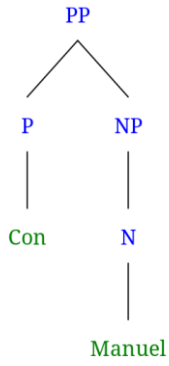
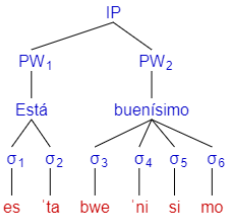
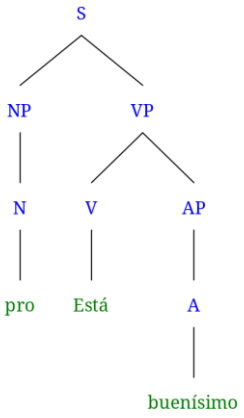
NFD4	**Es posible que no le guste el regalo.**		
NFD5	~~**¿Con quién va a ser?**~~ **¡Con Manuel!**		
NFD6	**¡Está buenísimo!**		

Table 8.2: Prosodic Hierarchy and Syntactic Structure for NFD Target Phrases

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