

Article

In the Echoes of Guarani: Exploring the Intonation of Statements in Paraguayan Spanish

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Abstract: This explorative study examines intonation contours in neutral and non-neutral statements of Paraguayan Spanish, a variety shaped by extensive contact with Guarani, a co-official language of Paraguay. Paraguayan Spanish displays both lexical and syntactic borrowings from Guarani, along with innovative intonation patterns not found in other Spanish varieties. Previous but still limited research on yes/no and wh-questions in this variety suggests the emergence of a unique intonational system, possibly of a hybrid nature, in both Spanish monolinguals and Spanish–Guarani bilinguals. To date, no comprehensive description of intonation patterns in Paraguayan Spanish statements exists. The present study addresses this gap by analyzing data obtained through a Discourse Completion Task, covering broad-focus statements, contrastive focus, exclamatives, and statements of the obvious. Data were collected in 2014 from two monolingual speakers, eleven bilingual Spanish-dominant speakers, and eight bilingual Guarani-dominant speakers. The intonation is formalized using the Autosegmental–Metrical model of intonational phonology and the Spanish Tones and Break Indices labeling system. The findings reveal three main realizations of nuclear accents (L+H*, H+L*, and innovative >H+L*) in neutral and non-neutral declarative sentences, lengthening of syllables, diverse syntactical strategies, and lexical borrowings. The study contributes to the understanding of a lesser-studied Spanish variety and offers insights into theoretical aspects of contact linguistics.

Keywords: Paraguayan Spanish; Guarani; intonation; neutral and non-neutral statements; bilingualism; contact linguistics



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1. Introduction

In the realm of contact linguistics, Paraguay stands out as an appealing landscape for studying language interactions. The country's rich history is marked by the enduring contact between Spanish and Guarani, an indigenous Tupí language spoken in several countries of South America. This linguistic mutual influence has been ongoing since the founding of Asunción, Paraguay's capital, in 1537. While Guarani has enjoyed prestige within Paraguayan society, symbolizing “affective and cultural identity” (Gynan 2011, p. 353), it only gained official status alongside Spanish in 1992. Despite over half of the population regularly using both languages (Klee and Lynch 2009, p. 157), and 80% to 90% of Paraguayans having varying levels of Guarani knowledge (Gynan 2011), bilingualism remains diglossic (see, e.g., Rubin 1974). Spanish is predominantly used in formal contexts, while Guarani or Jopará (a mix of Paraguayan Spanish and Guarani) is favored in informal situations (see, e.g., Melià 1992; Lustig 1996; Kallfell 2011).

The profound and long-standing contact between Spanish and Guarani has significantly influenced lexicon, grammar, and phonology, with numerous studies documenting these linguistic dynamics in both languages (see, e.g., Alonso [1941] 1951; Cassano 1971, 1972; Malmberg 1974; de Granda 1982, 1988; Krivoshein de Canese and Corvalán 1987; Guaranía 2012; Estigarribia 2015, 2017; Aleza Izquierdo 2010; Gabriel et al. 2020; Gynan and López Almada 2020). However, little is known about how this contact has affected the intonation of Paraguayan Spanish. While previous research has delved into various aspects

of language contact, the exploration of Paraguayan Spanish intonation remains a largely understudied area of investigation.

Prosody has been acknowledged as sensitive to change and “wholesale convergence” (Matras 2009), with numerous studies demonstrating its transformation in linguistic contact areas within the Spanish-speaking world (see Grünke 2022; Pešková 2023a for overviews). One of the seminal works in this field is by Colantoni and Gurlekian (2004), who discuss the convergence system in Buenos Aires Spanish, influenced by various Italian varieties due to massive immigration during the late 19th and early 20th centuries (see also Gabriel et al. 2013; Pešková et al. 2012; Gabriel and Kireva 2014). The linguistic proximity between Spanish and Italian, along with various sociocultural and linguistic factors, very likely accelerated the development of this new variety (Colantoni and Gurlekian 2004, p. 107). Beyond the unique Spanish–Italian language contact scenario in Argentina, numerous other studies have explored intonation patterns in bilingual areas, including Yucatecan Spanish in contact with Maya in Mexico (Uth 2019), Spanish–Guarani contact in Argentina (Colantoni 2011), Spanish–Portuguese contact in Spanish Olivenza (Kireva 2016), Cuban Spanish in contact with English and other Spanish dialects in Miami (Alvord 2006), Spanish–Catalan contact in Catalonia (Grünke 2022), Quechua–Spanish in Peru (O’Rourke 2004, 2005; Buchholz 2021), and Spanish in contact with Basque (Elordieta and Romera 2021; Romera and Elordieta 2020), to name a few. All these studies support the hypothesis that contact-induced changes significantly influence the intonational system, often attributed to second-language pronunciation and transferred phenomena, which play a key role in language change (see, e.g., Weinreich 1953; Thomason and Kaufman 1988; Thomason 2001; McMahon 2004; Delais-Roussarie et al. 2015).

The aim of the present study is to shed light on the intonation patterns of both neutral and non-neutral statements in Paraguayan Spanish. The approach is based on the Autosegmental–Metrical (AM) model of intonation phonology (Pierrehumbert 1980; Ladd 1996, 2008; for Spanish see Hualde 2003; Prieto 2003), using the Spanish Tones and Break Indices (ToBI) labeling system (e.g., Aguilar et al. 2009). It builds upon the comprehensive cross-dialectal study of Spanish intonation presented by Prieto and Roseano (2009, 2010). Comparing Paraguayan Spanish with other Spanish varieties aims to identify any innovative intonation patterns, as demonstrated in previous studies on question intonation by Pešková (2022, 2024). Through empirical research, the main objective is to provide a comprehensive description of this less-explored variety of Spanish, discuss potential Guarani influence, and contribute valuable insights to the broader field of contact linguistics.

The article is organized as follows: In Section 2, the state of the research field is reviewed, and crucial publications on Guarani and Spanish (intonation) are presented, highlighting their principal conclusions. Research questions and working hypotheses are also formulated. Section 3 describes the materials and methods, followed by the results of the present study in Section 4, in which descriptions and illustrations of representative outcomes are presented. The main findings are summarized and interpreted from the perspective of previous studies and the underlying research questions in Section 5. Finally, Section 6 concludes with remarks on the main contact-induced intonation patterns observed in Paraguayan Spanish.

2. Intonation of Guarani and Spanish Statements in Contrast

In both Guarani and Spanish, pitch is used postlexically for grammatical or pragmatic purposes. Following Féry’s (2017) typology, we can call them *intonation languages*. Relying on Jun’s (2005, 2014) framework of prosodic typology, Burdin et al. (2015) and Jun and Zubizarreta (2022) classify Guarani as a head-prominence language, like English or Spanish. This means these languages mark phrase-level prominence based on the phrase head, which is determined by a stressed syllable. The two languages also display a strong macrorhythm, which is related to pitch regularity and/or repetitions of tonal sequences.

Furthermore, Spanish and Guarani have lexical stress. In Spanish, stress is considered “flexible” and serves a distinctive function, while in Guarani most lexical roots have final stress, although stress shifting is possible with borrowings or the addition of unstressed suffixes (see, e.g., [Gregores and Suárez 1967](#)). In addition to the previous proposal, [Jun and Zubizarreta \(2022\)](#) have suggested that (Paraguayan) Guarani is a head-prominence language that also includes accentual phrases (APs), which are used to mark specific syntactic categories and groupings. In the following sections, we will present the main intonation properties of the statements in Guarani (Section 2.1) and Spanish (Section 2.2) based on previous research.

2.1. Intonation of Statements in Guarani

The case study by [Gregores and Suárez \(1967, pp. 75–78\)](#) provides a highly valuable description of (Paraguayan) Guarani’s intonational system, based on data from naturalistic conversations. The authors employ a four-level F0 annotation system, ranging from /1/ (lowest) to /4/ (highest), and identify eight intonation pattern types that convey various meanings in Guarani. Their description of different sentences indicates that rising F0 is commonly linked to stressed syllables, although phrase-final stressed syllables can also exhibit a falling F0 contour.

Regarding broad-focus statements, [Gregores and Suárez \(1967\)](#) suggest that they display mostly falling intonation. When the statement is followed by another macrosegment (or prosodic phrase), the contour drops to levels /3/ and /4/ (Type I) or level /1/ (Type IIa) and /2/ (Type IIb). The intonation of Type I begins with /2/, has “up-down” contours, and /2/ on stressed syllables. In contrast, the stressed syllables of Type II have mostly /3/. Type III displays a higher pitch on the stressed syllable of a focused element (level /4/) and conveys emphasis or draws attention. It is also used for “correcting something previously said”. Type IV has a question intonation, not relevant here. Type V is characteristic of /1/ on the last stressed syllable and is typical for approval statements or conclusions. Type VI involves a higher pitch and “extrastrong stress” on the stressed syllable (level /4/) before the final drop, and is found in the statements “stating something in contradiction or as a reproach”. Compared to Type III, Type VI exhibits a larger pitch range for the rises. Type VII is characterized by a rather low pitch register throughout the sentence and is associated with “some kind of ironical meaning.” And finally, Type VIII, which occurred once in their corpus, end with /4–2/ levels and implies a “kind of shocked surprise”. In sum, Paraguayan Guarani’s intonation of statements includes rising and falling pitch accents, different degrees of pitch range, and intonational phrase boundary tones. These main findings align with those from posterior research, as well as with the results from the present study (Section 4).

In comparison to Spanish (Section 2.2), the modeling of Guarani intonation within the AM framework is still very limited. The works on the prosodic marking of focus in Paraguayan Guarani by [Clopper and Tonhauser \(2011, 2013\)](#) represent important exceptions. Based on read discourse tasks and the native production of short subject–verb utterances, the authors identify two main patterns: (1) a hat contour consisting of a rising pitch accent (L*+H) on the first word and a falling pitch accent (H+L*) on the final word of the utterance, and (2) a two-peak pattern, consisting of a rising pitch accent (L*+H) on each word (Figure 1). L*+H is phonetically realized as a low tone of the rise within the stressed syllable and with the high target on the following syllable.¹ H+L* is phonetically realized as a falling tone within the stressed syllable and with the high target on the preceding syllable ([Clopper and Tonhauser 2013, p. 228](#)). Regardless of the focus condition, pitch accents were consistently present on both the subject and the verb in the utterances.

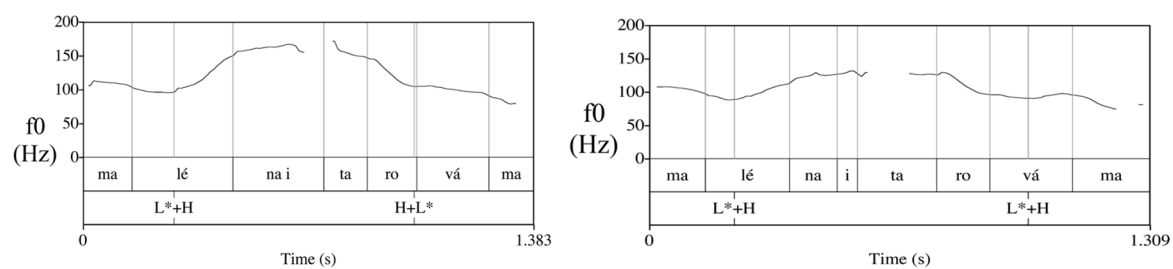


Figure 1. Example of a hat contour (left) and a two-peak contour (right) in a Guarani statement, *Maléna i-tarová-ma*, ‘Malena is already crazy’ (from [Cloppe and Tonhauser 2011](#); their Figure 1).

It should be added that more rising pitch accents were produced on focused elements, which also had longer stressed syllables than nonfocused expressions. This indicates that both F0 and the duration are significant predictors of the focus condition in Guarani. This is also confirmed in [Burdin et al. \(2015\)](#). Their experimental study on the variation in the prosody focus shows that (Paraguayan) Guarani uses rising and falling F0 patterns in focus conditions (Noun or Adjective Focus). Moreover, it displays deaccenting and duration to mark focus within noun phrases. Nouns were more likely to lack pitch accents when the focus was on the adjective, but adjectives did not exhibit a similar deaccenting pattern. The authors speculate that the difference may be due to word order, as adjectives typically come after nouns in the language. Additionally, the focused expression tended to be longer, especially in the Noun Phrase Focus condition, emphasizing the entire focused phrase. Rising (LH) pitch accents were more common for both adjectives and nouns than falling (HL) pitch accents.

A different picture is offered in the recent study by [Jun and Zubizarreta \(2022\)](#), where longer words and sentences, along with various syntactic structures in Guarani, were examined. They demonstrate that Guarani features a single type of pitch accent, a tritonal /HLH*/, and an Accentual Phrase pattern /H HLH* Ha/, although the AP is not consistently realized on the surface. The tritonal accent, exemplified by *aguará-pe* in Figure 2, consists of a falling tone (HL) on the pretonic syllable (*agua-*) and a rising tone (LH) on the tonic syllable (*-rá-*). The final H tones reminds us of [Dooley’s \(1982, p. 321\)](#) observation that Guarani declaratives do not end with a falling accent but with a “step up in pitch”.

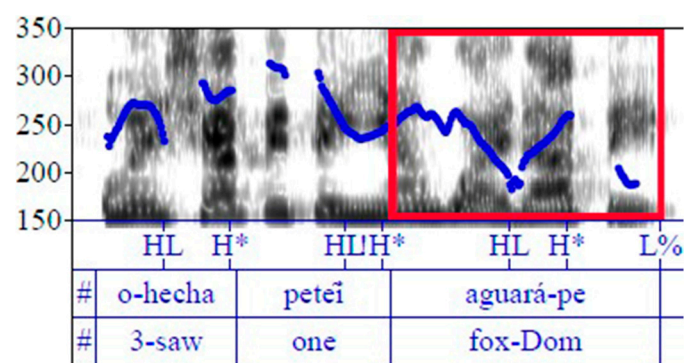


Figure 2. Example of a tritonal pitch accent in the Guarani phrase ‘He saw one fox’ ([Jun and Zubizarreta 2022](#); their Figure 2).

It is worth noting that the tritonal pitch accent can manifest with different allophonic realizations, like H*, LH*, or HLH*, depending on the stress placement and word metrical structure. Individual preferences were also observed. For instance, younger female speakers often employed the tritonal pitch accent as simple L+H*, L+<H* patterns, possibly influenced by Spanish (see [Jun et al. 2023](#)).

2.2. Intonation of Statements in Spanish

Spanish intonation has been thoroughly studied and modeled within the Tones and Break Indices framework (e.g., [Sosa 1999](#); [Face and Prieto 2007](#); [Aguilar et al. 2009](#) for Spanish). [Prieto and Roseano \(2010\)](#) provide an important description of the intonation patterns of ten main Spanish dialectal areas. According to this collective work, there are sixteen different intonation patterns of the neutral and non-neutral statements in the ten examined Spanish varieties (Table 1). The analysis is based on a wide range of (semi)spontaneous data, including different type of sentences (neutral and biased statements, questions, vocatives, as well as imperatives). The use of the same method (Discourse Completion Task) facilitates a cross-dialectal comparison of the resulting intonation patterns (Section 3).

Table 1. Inventory of nuclear pitch configurations of neutral and non-neutral statements in different Spanish dialects (based on [Prieto and Roseano 2010](#)).

Sentence Type	Inventory	Variety
Broad focus	L* L%	Argentinian, Canarian, Cantabrian, Castilian, Ecuadorian, Mexican
	L+H* L%, L+!H* L%	Chilean, Mexican
	H+L* H%, L+H* H%	Dominican
	H+L* L%	Argentinian, Puerto Rican
	(!)H* L%	Venezuelan
	!H+L* L%	Chilean
Narrow focus	L+H* L%	Canarian, Cantabrian, Castilian, Chilean, Ecuadorian, Mexican, Puerto Rican, Venezuelan
	L+H* LH%	Dominican
	H+L* L%	Dominican
	H* L%	Puerto Rican
	L+H*+L L%	Argentinian
Statements of the obvious	L+H* L!H%	Canarian, Cantabrian, Castilian, Mexican, Puerto Rican
	L* HL%	Cantabrian
	L+H* H%	Dominican
	L+H* L%, L+!H* L%	Chilean, Venezuelan
	L* L%	Ecuadorian
	L+H*+L L%	Argentinian
Exclamatives	L+H* L%, L+!H* L%	Cantabrian, Castilian, Chilean, Mexican, Puerto Rican
	!H* L%, !H* L%	Canarian, Venezuelan
	L+H* LH%, L+H* L!H%	Dominican, Venezuelan
	L* L!H%	Puerto Rican
	L+H*+L L%	Argentinian
	H* L!H%	Ecuadorian

The intonation of statements in the varieties differs not only in form and meaning but also in the number of patterns and their frequencies. Some varieties have only three distinct contours (e.g., Argentinian Spanish), while others can feature up to six (e.g., Dominican Spanish). Several Spanish varieties exhibit certain innovative patterns not found elsewhere. To give an example, Argentinian Spanish is the only variety characterized by the tritonal nuclear pitch accent (L+H*+L) in biased statements and Dominican Spanish is unique in its use of high boundary tones (H%) in declarative sentences. Moreover, the meaning of a particular intonational contour can vary significantly between dialects. For instance,

whereas an $L^* L\%$ nuclear configuration is used for broad-focus statements in the majority of Spanish dialects, it is also used for the statements of the obvious in Ecuadorian Spanish only.

Despite certain particularities, we can recognize three primary patterns that are prevalent in the majority of Spanish dialects (Figure 3). The $L^* L\%$ configuration is the most characteristic nuclear contour for broad-focus statements, while narrow-focus statements and exclamatives are typically marked by $L+H^* L\%$ (or its upstepped variant $L+\uparrow H^* L\%$). Statements conveying the obvious are predominantly represented by $L+H^* L!H\%$. The typical prenuclear pitch accent in Spanish statements is a rising $L+<H^*$ pattern ('late peak'), except in the Argentinian variety, where $L+H^*$ ('early peak') is more common.

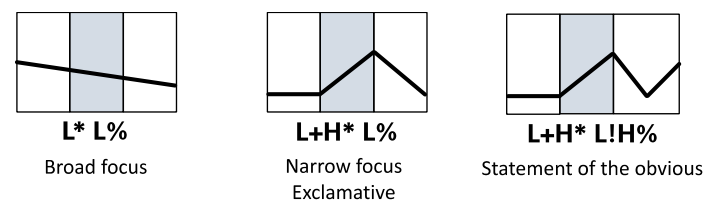


Figure 3. Schematic representation of the most typical nuclear configurations of statements in Spanish.

At the end of this section, Colantoni's (2011) cross-dialectal investigation of four Argentinean varieties should be briefly presented. To the best of my knowledge, it is so far the only research that includes the intonation of statements in a Spanish–Guarani contact variety, specifically Spanish spoken in Corrientes, a town located in Northeastern Argentina near the Paraguayan border. In her comparative study, Colantoni concludes that “the most striking similarity [of the Corrientes variety] with Guarani is the magnitude (i.e., higher pitch) of the nuclear rise” in declarative sentences (p. 207). This suggests that the magnitude of the pitch range—together with further characteristics—can also be an important feature of any Spanish variety as a result of language contact.

2.3. Research Objectives and Questions

As previously mentioned, Paraguayan Spanish has not been addressed in prior research on Spanish intonation. Building on the preceding study of yes/no and wh-questions in Paraguayan Spanish (Pešková 2022, 2024), two primary patterns have emerged within this variety: a descending nuclear accent with a final rise ($H+L^* LH\%$) and a falling nuclear configuration ($H+L^* L\%$) (Figure 4). The former pattern can be considered a distinctive feature of Paraguayan Spanish, absent in other Spanish dialects described so far (Prieto and Roseano 2010). It is assumed that, in contrast to other varieties, Paraguayan Spanish has a relatively limited tonal inventory, possibly due to simplification or overgeneralization strategies (Pešková 2022, p. 24). A limited inventory of tonal patterns was also assumed for Guarani (e.g., Burdin et al. 2015). Another noteworthy aspect is the rhythmic structure, characterized by the repetition of rising ($L+H^*$) and falling ($H+L^*$) contours, which are particularly prominent in biased questions (Pešková 2022).

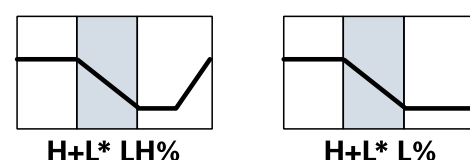


Figure 4. Schematic representation of the most typical nuclear configurations of questions in Paraguayan Spanish.

Regarding the intonation of the statements in Paraguayan Spanish, the present study departs from two very general questions. The first question is related to the realization of the intonation patterns and transfer phenomena from Guarani, while the second question

explores whether higher dominance of Guarani can facilitate intonational innovations in Spanish.

(RQ1) *Has intensive contact with Guarani led to intonational innovations in both neutral and non-neutral statements in Paraguayan Spanish?*

It is expected that the co-official language Guarani has influenced Spanish and specific intonational patterns will be found, as previously demonstrated in the studies on questions. Building upon the summary provided in Section 2, the following scenarios emerge:

- Rising pitch accents (LH) will be produced in the prenuclear position and on focused elements.
- Falling patterns (HL) will be produced in the nuclear position as the typical realization of neutral statements.
- Low boundary tones (L%) will be found in both neutral and biased statements.
- Tritonal contours (HLH*), in prenuclear and/or nuclear positions, will be expected too.

(RQ2) *Does the language of the speakers (Guarani–Spanish, Spanish) play any role in shaping the intonation patterns of the statements? Or do we find a convergent prosodic system?*

Cross-linguistic interaction generally leads to significant variation in speech. There is ongoing discussion regarding the role of language dominance in explaining such variation. While language dominance is reported as one of the factors affecting bilinguals' productions in some studies (see, e.g., Grünke 2022 for Catalanian Spanish), it is not considered crucial in others (Elordieta and Romera 2021, for Bilbao and San Sebastian Spanish varieties in contact with Basque). Drawing from observed tendencies in yes/no and wh-questions in Paraguayan Spanish, we hypothesize that the two contact languages have developed a convergent system as a consequence of extensive bilingualism (see, e.g., Colantoni and Gurlekian 2004, for Buenos Aires Spanish). Given that Guarani is suggested to have a smaller inventory of pitch accents (e.g., Burdin et al. 2015) compared to Spanish, this can further support the simplification processes in Paraguayan Spanish. However, as discussed in O'Rourke's study (O'Rourke 2005) on Peruvian Spanish and the influence of Quechua on its intonation system, not all features may undergo the same change.

3. Methodology

In March 2014, a qualitative investigation on Paraguayan Spanish phonology was conducted using a one-hour long production experiment (see Gabriel et al. 2020). The study took place in various locations, including Asunción and its surrounding urban and rural areas. This part presents its participants (Section 3.1) and experiment (Section 3.2) along with the analysis procedure (Section 3.3) employed in the present study.²

3.1. Participants

The study included 21 participants (aged between 19 and 67 years old), comprising 11 females and 10 males. Among them were 11 Spanish-dominant bilinguals (SP-dom), 8 Guarani-dominant bilinguals (GU-dom), and 2 Spanish-speaking monolinguals (SP-mono). The Spanish-dominant bilinguals and monolinguals came exclusively from urban areas (Asunción, Luque, San Lorenzo, San Juan Bautista, Concepción), while the Guarani-dominant speakers were either of urban or rural (Chaco, Itacurubí de la Cordillera, Carí'y Loma) origins. All speakers were raised in families where Paraguayan Spanish, and not any other Spanish variety, was spoken.

To determine language dominance, the speakers self-reported various criteria, including language assessment, attitudes towards languages, the native language(s) of their parents, and language use within their families and informal settings. The SP-dom speakers were classified as simultaneous bilinguals, having acquired both Spanish and Guarani within the family (mostly due to one parent's side) and predominantly using Spanish in their families. In contrast, the GU-dom speakers were classified as consecutive bilinguals, since they were raised in families where Guarani was the primary language, and began learning Spanish during their later socialization, typically when they started attending (pre)school. This group exhibited a preference for using Guarani in informal settings and

showed a positive attitude towards the language, rating their Guarani competences higher than the SP-dom bilinguals. These self-ratings were based on the *Bilingual Language Profile* instrument developed by Birdsong et al. (2012). It should be added that the primary focus of the production experiment was to investigate spoken language and phonological phenomena. Consequently, while the survey assessed various aspects of language dominance, it did not cover all domains (e.g., grammar, vocabulary size, or written competences).

It is important to add that all the data were collected in a family environment by Tim Ewald, a former student of the University of Hamburg (Germany), who personally knew the speakers and had advanced knowledge of both Spanish and Guarani, as well as Jopará. The data were recorded directly in WAV file format using a Sennheiser microphone (ME64) and a Marantz HD Recorder (PMD671).

3.2. Experiment

The whole production experiment was structured into three different parts: (1) the reading of the fable “The North Wind and the Sun”, (2) a Discourse Completion Task (DCT), and (3) a short semidirected face-to-face interview. Additionally, all bilingual participants were asked to read a popular tale from Guarani mythology entitled “Mombe’u gua’u Yasy Yatere rehegua” (“The Legend of Yasy Yatere”).

For the purpose of the present study, data analysis focused only on the responses gathered from the second task, the DCT. This method, initially designed for pragmatics research (Blum-Kulka et al. 1989), was based on the guided questionnaire used by Prieto and Roseano (2010) for Spanish intonation research. The Paraguayan version was adapted only in terms of specific lexical items and morphosyntactic phenomena, such as *voseo*. The DCT provides a controlled context for participants to respond spontaneously to specific daily situations. It elicits authentic responses, enables easy comparison of responses across participants, and is time-efficient (see, e.g., Vanrell et al. 2018). All the contexts were presented orally by the interviewer (Tim Ewald) to every speaker following a short practice session. In instances where the speaker did not react appropriately to the context, the situation was repeated at most twice.

The DCT employed in this research consisted of 49 situations, with 11 designed to prompt neutral or non-neutral statements (see Table 2). For the purposes of the present study, eight sentences were selected for the final analysis. These sentences consisted of three neutral statements and five non-neutral statements, comprising two statements with contrastive focus, one statement of the obvious, and two exclamatives.

Table 2. Context used to elicit neutral and non-neutral statements in Paraguayan Spanish.

Sentence Type		DCT Context
S1	Neutral one tonal unit	<i>Te preguntaron si preferís peras o mandarinas. Vos respondés que mandarinas.</i> ‘They asked you if you prefer pears or mandarins. You answer tangerines.’
S2	neutral one tonal unit	<i>Mirá el dibujo y decime: ¿qué pasa acá?</i> ‘Look at the picture and tell me: what is happening here?’
S3	neutral enumeration	<i>Decime los días de la semana.</i> ‘Tell me the days of the week.’
S4	non-neutral contrastive focus	<i>Entrás a una frutería donde hay una señora que es un poco sorda. No te escuchó bien, y, después de decirle que querías un par de naranjas, ella te pregunta si son limones, lo que querés. Decile que no, que lo que querés son naranjas.</i> ‘You enter a fruit shop where there is a lady who is a little bit deaf. She didn’t hear you well, and after you told her that you wanted a couple of oranges, she asks you if you want lemons. Let her know again that you want oranges.’

Table 2. Cont.

Sentence Type		DCT Context
S5	non-neutral contrastive focus	<i>Estás hablando con una amiga de unos amigos que se quieren comprar un departamento y ustedes no están seguros de adónde se van a vivir. Vos sabés que ellos se van a vivir a Limpio. Tu amiga te dice que no, que seguro a Luque. Decile, convencida, que no, que ellos se van a vivir a Limpio.</i> ‘You are talking with a friend about some friends who want to buy an apartment, and you are not sure where they are going to live. You know that they will be living in Limpio. Your friend tells you they are not; they are for sure going to live in Luque. Tell her, convinced, that no, they are going to live in Limpio.’
S6	non-neutral obvious	<i>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 es con Manuel, claro.</i> ‘You are with a friend, and you tell her that Mary, a friend of both of you, is going to get married. She asks you who is the groom. You are very surprised that she doesn’t know because everyone knows it’s with her boyfriend, Manuel. Tell her, of course, it’s with Manuel.’
S7	non-neutral exclamative	<i>Entrás a una panadería y olés unas rebuenas medialunas. Decíselo al panadero.</i> ‘You enter a bakery, and you smell some delicious croissants. Tell it to the baker.’
S8	non-neutral exclamative	<i>Te invitaron a un asado que es lo mejor que habías comido en tu vida, te encantó. ¿Qué decís?</i> ‘You are invited to a barbecue, and it’s the best one you ever had, you are ravished. What do you say?’

In this part of the experiment, we expected a total of 168 responses to the given contexts. However, some utterances were produced in a less natural way or other than the expected declarative type. All in all, for the final analysis, a total of 166 statements were considered.

3.3. Analysis

The data collected from the experiment underwent two levels of transcription: first, orthographic, and then phonetic. Acoustic analysis was conducted using Praat (Boersma and Weenink 1992–2022), and the subsequent tonal annotation was carried out manually. The tonal annotation was based on the AM model and the Sp_ToBI labeling system, as outlined in previous research (e.g., Estebas-Vilaplana and Prieto 2008; Aguilar et al. 2009; Prieto and Roseano 2010; Hualde and Prieto 2015). The AM labels, which provide insights into the tonal patterns of the statements, will be presented in Section 4 and subsequently summarized in Section 5.

The tonal analysis focused on the realization of two primary tonal events: (1) pitch accents related to stressed syllables and (2) boundary tones marking the final edge of the utterance. In addition, all statements were inspected for the syntactical and other phenomena.

4. Results

In this section, I will not only display the most frequent intonation patterns, but also highlight some atypical patterns that deviate from other varieties of Spanish. Thus, we will delve into different peculiarities that characterize this unique variety. Moreover, some lexical and segmental phenomena can be observed in the transcription, including Guaraní items; the phonetic transcription offers several features of this spoken variety that reveal certain Guaraní influences, such as the presence of voiced labiodental fricatives [v], a prepalatal affricate [dʒ], or a glottal stop insertion, for instance.

4.1. Neutral Statements

In the DCT, there were two contexts leading to production of neutral statements; the expected answers in the contexts are presented in (1).

- (1) Neutral statement (one unit)
 S1: *Prefiero mandarinas.* 'I prefer tangerines.'
 S2: *María está comiendo mandarinas.* 'Maria is eating tangerines.'

In 14 cases of the S1 context (N = 20), the nuclear pattern was simply a falling F0, labeled as H+L*, followed by a low tone that reaches speakers' baseline (L%) (Figure 5a). There were two exceptions to this main pattern, namely, L* L% (N = 1) and L+H* L% (N = 1). In a further four cases, there was a pretonic prominence—characterized by a high F0 and a high intensity—and I labeled this pattern with >H+L* (Figure 5b) (cf., Pešková 2022).

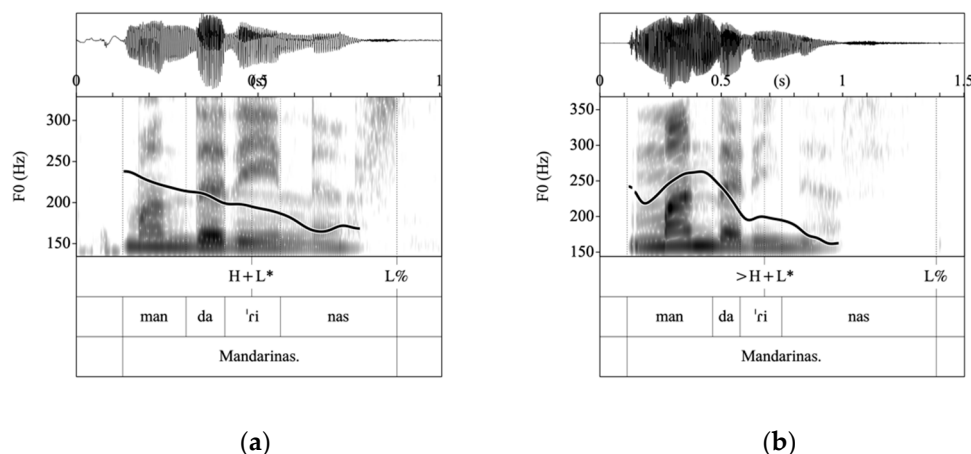


Figure 5. Waveform, spectrogram, and F0 trace of the S1 neutral statement *Mandarinas* ('tangerines') produced with: (a) H+L* L% (Gu06_S1_F); (b) >H+L* L% (Sp06_S1_F).

The phonological status of >H+L* is not yet clear; hence, I consider it a phonetic variant of H+L* for now. This pattern with the pretonic prominence represents what we might term a characteristic feature of Paraguayan Spanish intonation. Recall that Clopper and Tonhauser (2011, 2013) also speak about the pretonic high peaks of the falling HL pattern in their analysis of Guaraní. In the data of the present study, it appeared in 22 nuclear positions of both neutral and non-neutral statements, and sporadically in the prenuclear position. The earlier high tone of >H+L* appears mostly on the pretonic syllable or on the two syllables prior, as in 5b. It was produced by both bilinguals (Guaraní dominant = Gu, Spanish dominant = Sp) and monolinguals (=Mo).

The typical contour of S2 (N = 20) is H+L* L% (N = 12) or its variant >H+L* L% (N = 3), a pattern seen previously. As illustrated in Figure 6, the high pitch is located on the pretonic syllable *pe-* (*pelando*, 'peeling') and *-da-* (*mandarinas*, 'tangerines'). We detect also four L+H* L% and one L* L%. No clear tonal preference per group of speakers can be determined.

The prenuclear pitch accents of neutral statements were realized with a delayed peak (L+<H*), a typical Spanish pattern in this position. Nevertheless, many early peaks (L+H*) are also common in this variety, and we will explore them further later on. The magnitude of the rising pitch accents in neutral statements is 3.5 semitones on average (N = 27).

In nearly half of the cases, the subject *María* formed an intermediated prosodic phrase (L+H* H-), and only in four cases, the object *mandarinas* was produced with a focus-like accent, L+(i)H* L%. (Figure 7). Another particularity in this example can be observed: the lengthening of the last syllable of the utterance *-nas-* (*mandarinaaas*, 'tangerines'), which constitutes over 50% of the word's length. We will see additional examples later, in which mostly, but not only, the vowels are lengthened. This lengthening strategy, based on impressionistic observation, is another typical feature of Paraguayan Spanish prosody and indicates a form of emphasis in the data of the present study. It manifested once with a neutral statement and 32 times with non-neutral statements (predominantly in bilingual groups). In the transcription, I use three letters in the orthographic representation and a

lengthening IPA symbol in the phonetic representation in order to capture this phenomenon. Of course, precise and objective measurements are essential in future research.

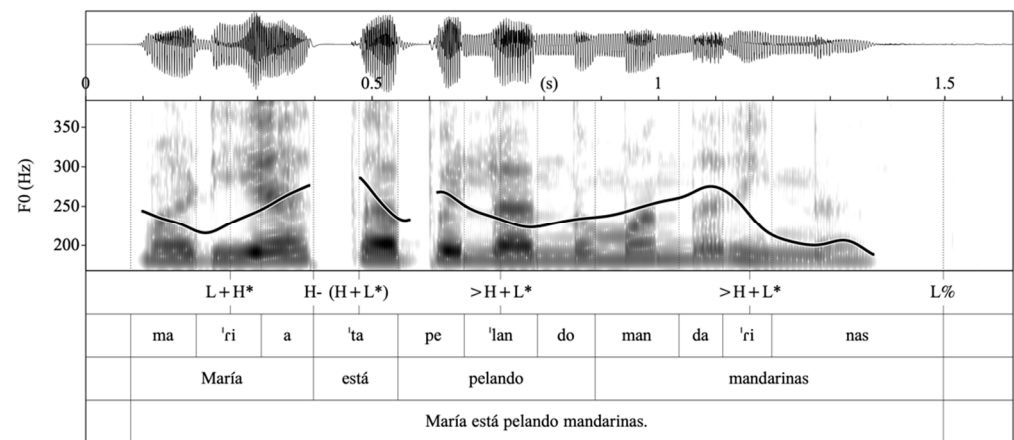


Figure 6. Waveform, spectrogram, and F0 trace of the neutral statement *María está pelando mandarinas* ('Maria is peeling tangerines') produced with >H+L* L% (Sp03_S2_F).

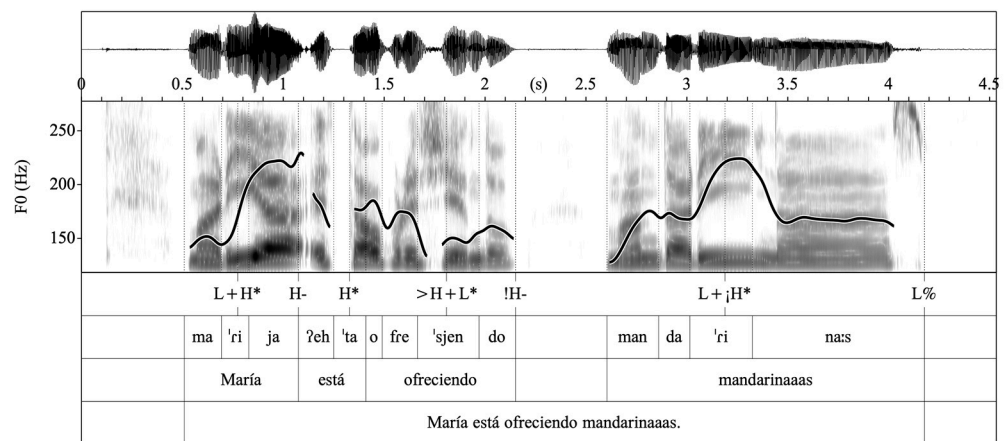


Figure 7. Waveform, spectrogram, and F0 trace of the neutral statement *María está ofreciendo mandarinaaas* ('Maria is offering tangerines') produced with L+_iH* L% (Gu02_S2_M).

The third neutral statement included the enumeration of the days of the week (2):

(2) Neutral statements (enumeration)

S3: *Lunes, martes, miércoles, jueves, viernes, sábado, domingo.*

'Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday'

The enumeration context (S3) exhibited three main tonal patterns. First, half of the speakers (mostly Guarani-dominant bilinguals) produced each word with a rising L+H* pattern, while the other half (mostly Spanish monolinguals and Spanish-dominant bilinguals) produced a low L* pitch accent on the stressed syllable. These tones were followed by a continuation rise (H-), downstepped rise or sustained pitch (!H-), low rise (LH-), or low boundary (L-) (see, e.g., [Gabriel et al. 2011](#), for phrasing patterns and phonetic differences among these intermediate boundary tones in Spanish). The final word in the sequence concludes the enumeration with H+L* L% in all cases (N = 21). In the first example (Figure 8), the accented syllable is realized with a rising L+H* pattern, followed by H- or !H-, while in the second example (Figure 9), the accented syllables are realized phonetically just with a low pattern followed by a steep rise (L* H-). During very fast enumerations produced by several speakers, there were almost no tonal movements and breaks observed on the surface (Figure 10).

- (3) Non-neutral statements (contrastive/corrective focus)
 S4: *No, naranjas.* ('No, oranges.')

S5: *No, se van a Limpio.* ('No, they are going to Limpio.')

The realization of the contrastive focus consists of a high—mostly upstepped—rising pitch accent on the accented syllable followed by a low boundary tone, L+_iH* L% (Figure 11). This exemplifies the typical focus realization in most of the described Spanish varieties (cf. Table 1). Interestingly enough, it was used 17 times in context S4, and merely 7 times in context S5. The reason for this discrepancy could lie in the metrical structure and the length of the utterances; a matter that warrants further investigation in the future.

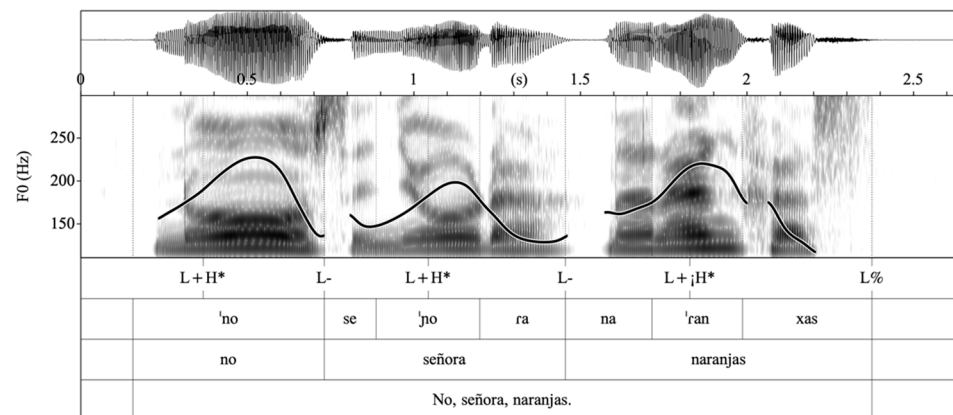


Figure 11. Waveform, spectrogram, and F0 trace of the non-neutral statement *No, señora, naranjas* ('No, ma'am, oranges') produced with L+_iH* L% (Gu01_S4_F).

In non-neutral statements, the pitch range of the rising pitch accents is larger than in neutral statements, with an average value of 4.8 semitones (N = 57). Future work should delve into the differences in the pitch range and pitch variation across speakers and languages in greater detail, aiming to capture further cross-linguistic influences.

It must be added that, in contrast to many other varieties, speakers of Paraguayan Spanish frequently use distinct syntactic strategies to convey focus. Alongside common Spanish strategies (4a), the speakers produced cleft structures (4b) and sentences with object fronting (4c).

- (4) Syntactic strategies for S4 context
- a. Common: *No, pregunto por naranjas.* (Gu02_M)
 'No, I'm asking for oranges.'
No, quiero naranjas. (Sp11_M)
 'No, I want oranges.'
No, naranjas. (Gu01_F)
 'No, oranges.'
- b. Cleft-structure: *No, lo que yo quiero, señora, es naranja.* (Gu04_M)
 'No, what I want, ma'am, is an orange.'
No, lo que yo quiero son naranjas (Mo01_F)
 'No, what I want are oranges.'
No, lo que quiero es naranja. (Sp07_F)
 'No, what I want is an orange.'
No, señora, lo que quiero es naranja. (Sp09_M)
 'No, ma'am, what I want is an orange.'
No, naranjas son lo que necesito. (Gu08_M)
 'No, oranges are what I need.'
No, son las naranjas las que quiero. (Sp02_M)
 'No, it's the oranges that I want.'

- c. Fronting: *No, naranja te pedí, naranja quiero.* (Gu05_F)
 ‘No, an orange I asked for, an orange I want.’
No, naranjas son. (Sp08_M)
 ‘No, it’s oranges.’
No, naranjas quiero. (Gu03_F)
 ‘No, oranges I want.’
No, naranjas te dije. (Sp04_F)
 ‘No, oranges I told you.’

The intonation of cleft and fronting structures includes a focus pattern on the object (Figure 12). In addition to the $L+(i)H^*$ nuclear pitch accent, $H+L^*$ ($N = 11$) and $>H+L^*$ ($N = 7$) were also detected in the narrow-focus sentences (Figure 13).

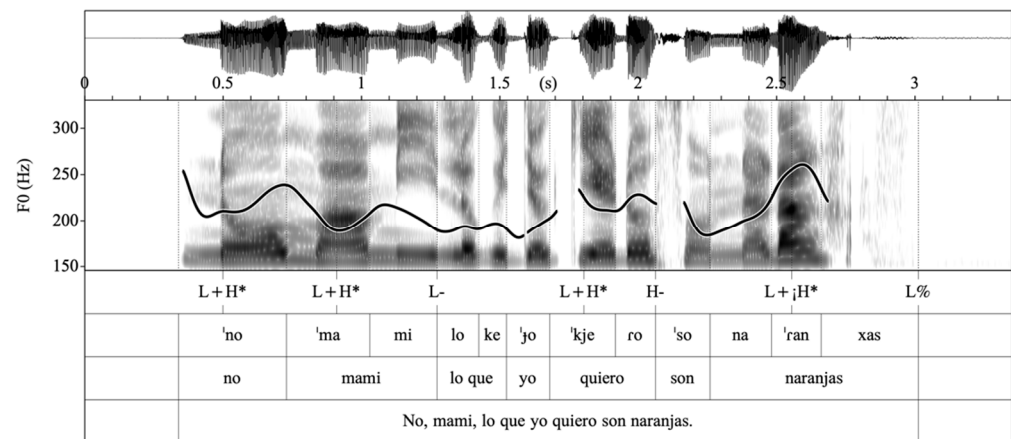


Figure 12. Waveform, spectrogram, and F0 trace of the non-neutral statement *No, mami, lo que yo quiero son naranjas* (‘No, ma’am, what I want is oranges’) produced with $L+iH^* L\%$ (Mo01_S4_F).

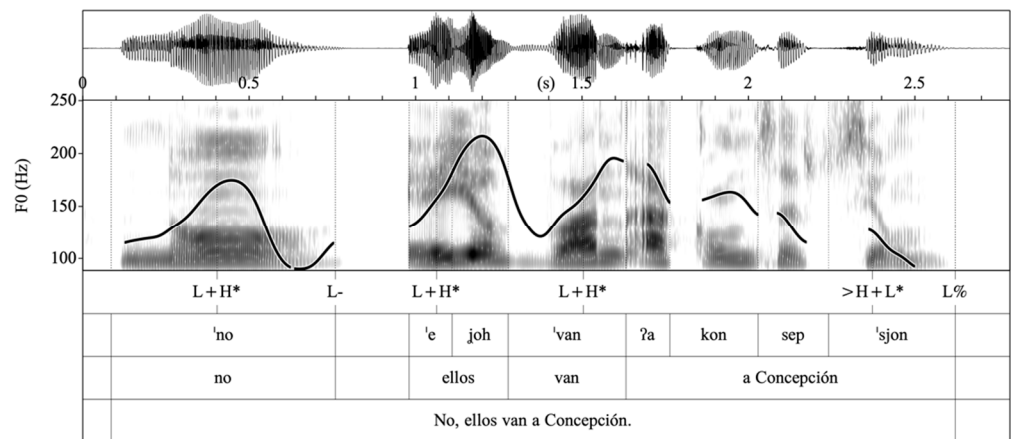


Figure 13. Waveform, spectrogram, and F0 trace of the non-neutral statement *No, ellos van a Concepción* (‘No, they are going to Concepción’) produced with $>H+L^* L\%$ (Gu02_S5_M).

Another notable characteristic of (Paraguayan) Spanish non-neutral statements is the recurring realization of prenuclear pitch accents with $L+(<)H^*$, a rising pitch accent on the stressed syllable (Figures 13 and 14). This strong macrorhythmicity, in the sense of Jun (2014), has also been previously described in non-neutral yes/no questions (Pešková 2022) and is attributed to the influence from Guaraní. Pešková cites in this context Gregores and Suárez (1967), who define (Paraguayan) Guaraní as having a “staccato” and “sung” contours, resulting from the repetition of high ascending and descending scales. The present data suggest that the pitch range of these contours is also involved in the perception of such “sung” patterns.

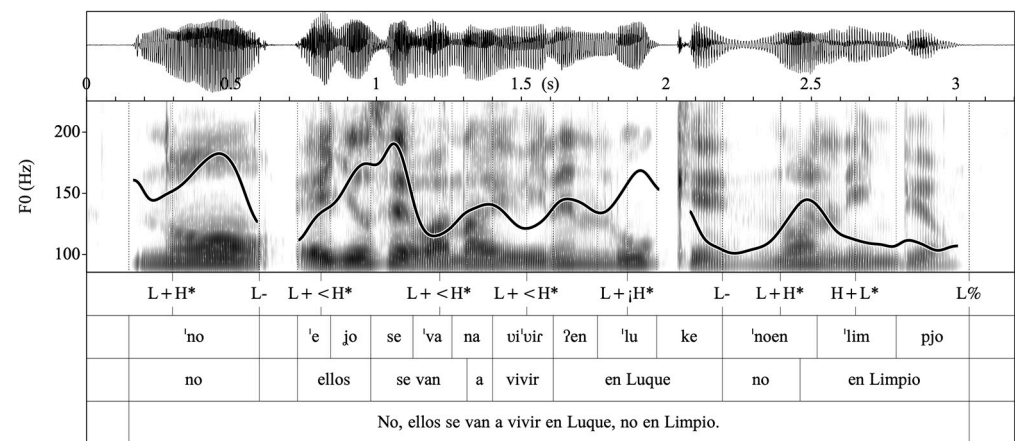


Figure 14. Waveform, spectrogram, and F0 trace of the non-neutral statement *No, ellos se van a vivir en Luque, no en Limpio* ('No, they are going to live in Luque, not in Limpio') produced with L+_iH* L- and H+L* L% (Gu04_S5_F).

In addition, Paraguayan Spanish seems to overuse pronominal subjects that are prosodically marked (see, e.g., *ellos*, 'they', in Figure 14), despite both Guarani and Spanish being null-subject languages (cf., Dryer 2013). Guarani lexical borrowings are no exceptions in bilingual productions either. In the following example (Figure 15), the speaker produced the cleft structure with the Guarani particle "ko", which serves as a preposition and is commonly used to indicate "to" or "towards" when expressing direction or movement. This integration of Guarani elements into the Spanish sentence exemplifies its influence on the syntax and vocabulary of Paraguayan Spanish. Another characteristic is also present: the occurrence of a pitch accent (L+H*) on the unstressed preposition *a* ('to') at the very beginning of the utterance. This is not an exception, and we will provide more examples later to illustrate and discuss this phenomenon. The high plateau over the *ko lo que* between *Luque* and *se van* can be interpreted as a type of "hat contour" observed also in Guarani (see, e.g., Jun and Zubizarreta 2022; their Figure 5).

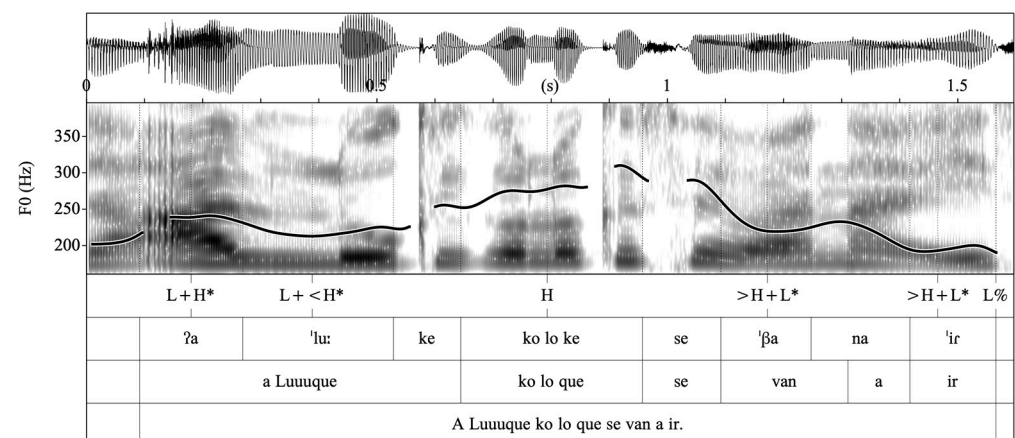


Figure 15. Waveform, spectrogram, and F0 trace of the non-neutral statement *A Luuque ko lo que se van a ir* ('It's to Luque that they are going to go') produced with >H+L* L% (Gu05_S5_F).

Further items analyzed included non-neutral statements of the obvious (5). In these cases, the speaker expresses surprise or astonishment at the fact that his/her friend is asking something very evident. As focus sentences, these statements were predominantly realized with a rising-falling L+(_i)H* (N=9) or a high-falling (>)H+L* pattern (N = 12).

(5) Non-neutral statements (statement of the obvious)

S6: ¡Se va a casar con Manuel! ('She is going to marry Manuel!')

A L% is here the typical boundary tone and in only two cases, the utterances were realized with a final L!H%, attested in many varieties for the statement of the obvious (Figure 16). This configuration appears to be an atypical intonation realization for expressing the obvious in Paraguayan Spanish, suggesting the use of a question tonal pattern that conveys a sense of “why are you asking, you don’t know it?”. Additionally, it is interesting that the responses in the context of *Manuel* were systematically introduced by the conjunction *y* (‘and’), which can be interpreted here as a discourse marker used for emphasis and statements of the obvious.

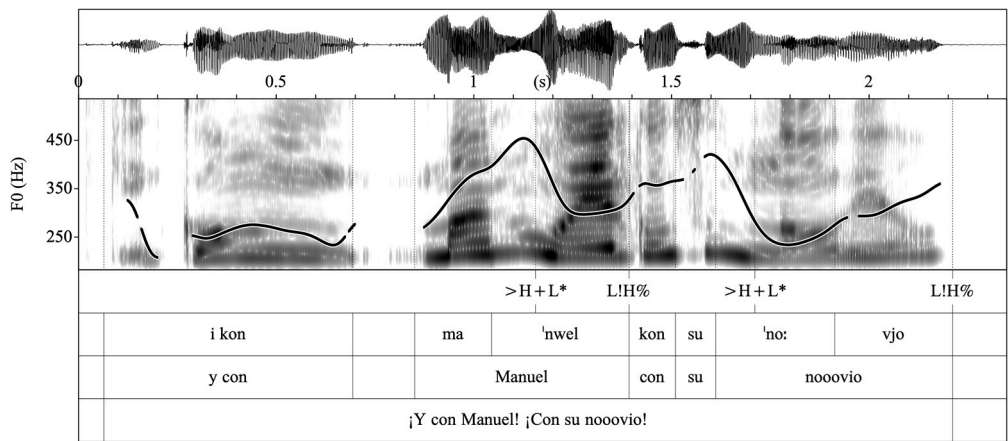


Figure 16. Waveform, spectrogram, and F0 trace of the non-neutral statement *Y con Manuel! Con su nooovio!* (‘And with Manuel! With her boyfriend!’) produced with >H+L* L!H% (Gu03_S6_F).

As previously mentioned, the non-neutral statements display repeating patterns, and this repetition can even occur on the unstressed syllable, as in the case of *ma-* in the name *María*, where both *ma-* and the stressed syllable *-ri-* are pitch-accented (Figure 17). Notice that *María* and *Dios mío* share the identical two-peak contours and are pronounced much more slowly compared to the third sentence.

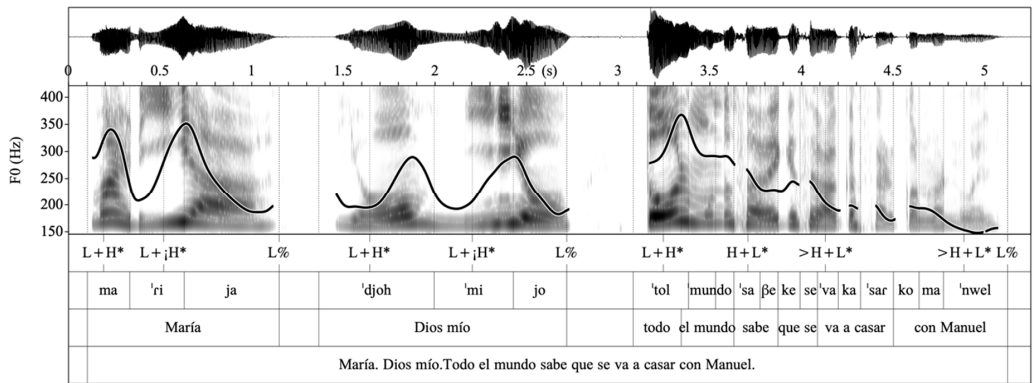


Figure 17. Waveform, spectrogram, and F0 trace of the non-neutral statement *María. Dios mío. Todo el mundo sabe que se va a casar con Manuel* (‘Maria. My goodness. Everyone knows she is going to marry Manuel’) produced with L+H* L% and >H+L* L% (Mo01_S6_F).

The prosodic word (*con Manuel*) in Figure 18 represents another instance of an additional pitch accent in the initial position of the utterance.

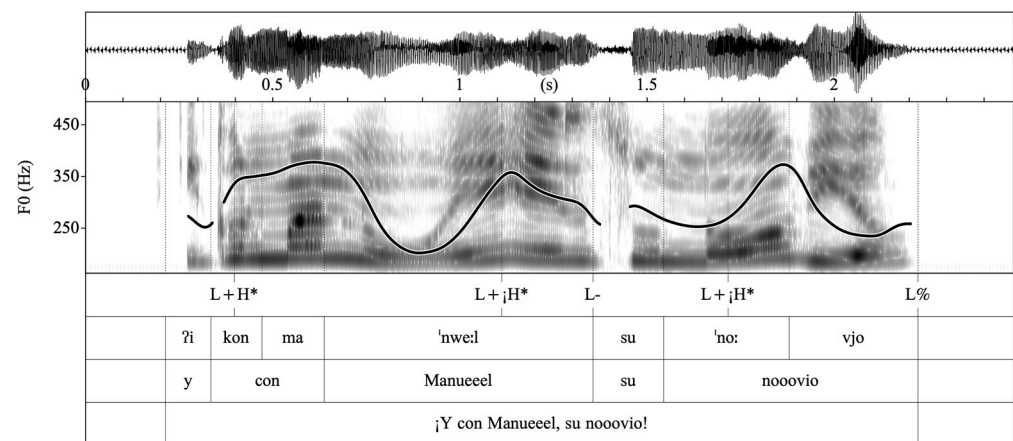


Figure 18. Waveform, spectrogram, and F0 trace of the non-neutral statement *¿Y con Manueel, con su noovio!* ('And with Manuel, her boyfriend') produced with L+iH* L- and L+iH* L% (Sp04_S6_F).

The occurrence of two pitch accents within a (prosodic) word to express emphasis is not systematic and appears only eight times in the corpus. For example, the exclamative sentence *Me encantó* (Figure 19) was realized with one pitch accent on *me* (which is the unstressed indirect object pronoun) and an L+iH* H% nuclear configuration. The final H% is due to the truncation effect, where the last syllable *-to-* is accented and the boundary tone coincides with the rising nuclear pitch accent. The high (IP) boundary tone (H%) in Paraguayan Spanish statements only occurred with oxytone words in the data.

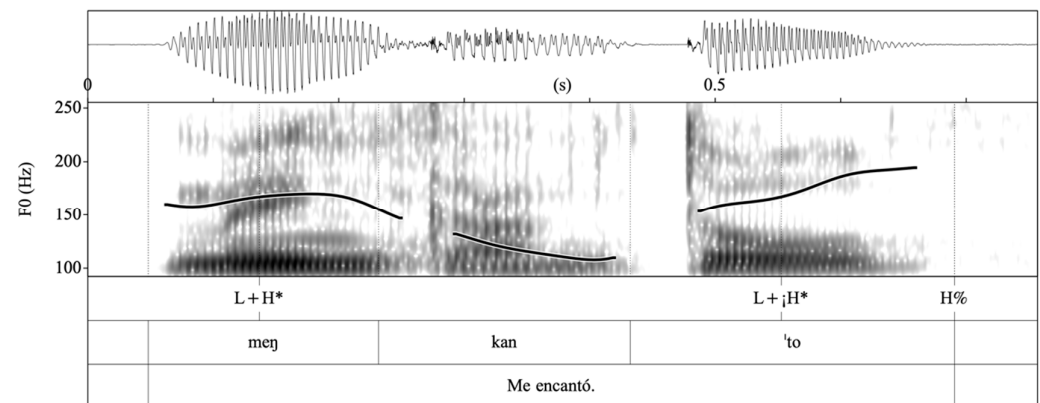


Figure 19. Waveform, spectrogram, and F0 trace of the non-neutral statement *Me encantó!* ('I loved it') produced with L+iH* H% (Gu02_S8_M).

It is suggested that the presence of two pitch accents within a single prosodic word aims to preserve the rhythmic flow of the utterances and to convey emphatic nuances. Another plausible explanation could be that the occurrence of the two pitch accents [L+H* L+H*] is a result of cross-linguistic influence and represents a phonetic realization of the Guaraní tritonal pitch accent /HLH*/, as illustrated in Figure 2. This must be resolved in the future based on additional controlled data.

The sentence *me encantó* was elicited in context S8, which was leading to the production of exclamative sentences (6):

(6) Non-neutral statements (exclamatives)

S7: ¡Qué ricas empanadas! ('What delicious *empanadas*!')

S8: ¡Qué rico asado! ('What a delicious barbecue!')

The nuclear configuration of exclamative sentences consisted of L+(j)H* L% (N = 23), H+L* L% (N = 12), >H+L* L% (N = 5), and L+(j)H* H% (N = 2). The last pattern was only found with oxytone words in the final position of the utterance.

Furthermore, the exclamative sentences exhibited all the typical features mentioned earlier, including lengthening phenomena (e.g., *rrrica* in Figure 20; *riquííísimo* in Figure 21; *bueeeeno*, *vieeejo*, *riiico* in Figure 22), the presence of Guaraní items (Figure 23), additional pitch accent on the unstressed syllable at the beginning of the utterance, and overall rhythmic effects. These attributes are characteristic of sentences expressing emphasis or involving strong emotion. The rising tonal patterns observed are L+H* (or very sporadically L*+H) in the prenuclear position and H+L* / > H+L* in the nuclear position, albeit (>)H+L* occurs occasionally in the prenuclear position too (Figure 24).

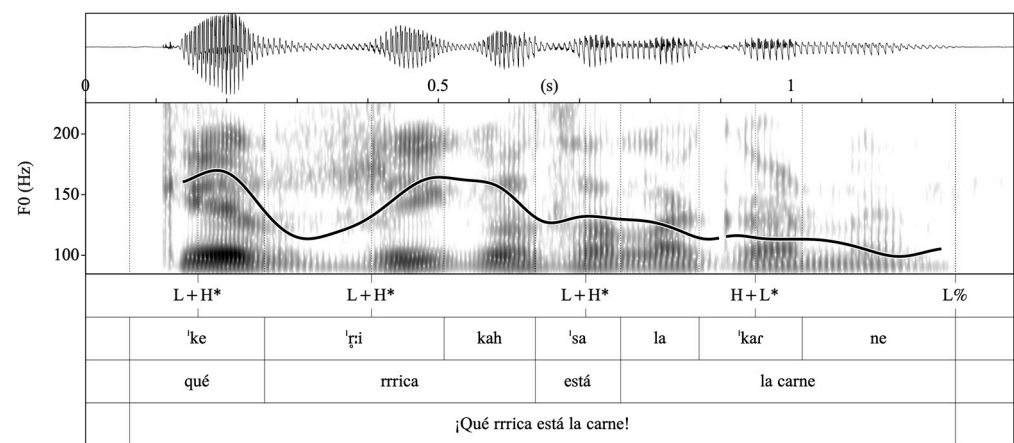


Figure 20. Waveform, spectrogram, and F0 trace of the non-neutral statement *Qué rrica está la carne* ('How delicious the meat is') produced with H+L* L% (Gu04_S8_M).

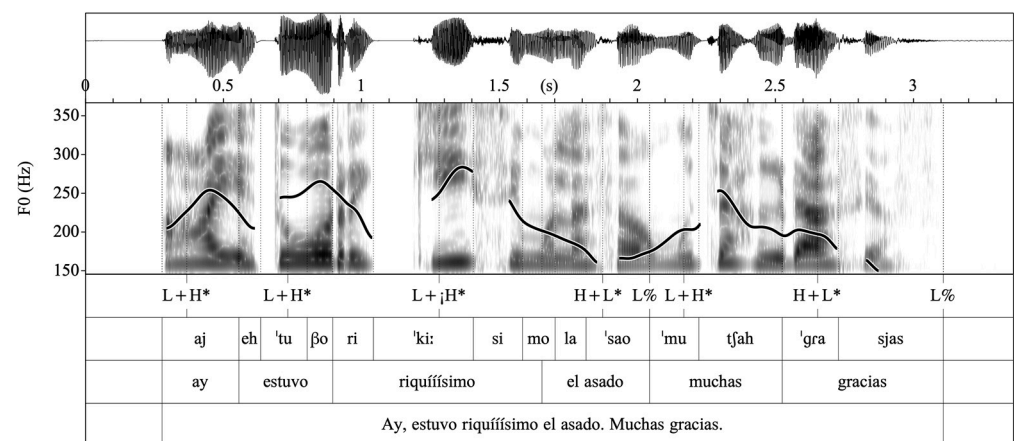


Figure 21. Waveform, spectrogram, and F0 trace of the non-neutral statement *Ay, estuvo riquííísimo el asado. Muchas gracias.* ('Oh, the barbecue was incredibly delicious. Thank you very much') produced with H+L* L% (Sp01_S8_F).

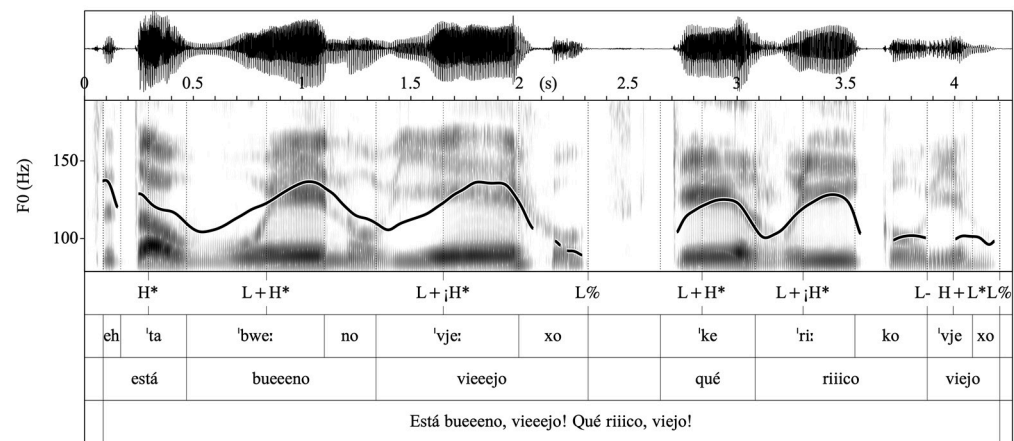


Figure 22. Waveform, spectrogram, and F0 trace of the non-neutral statement *Está bueeeno, vieeejo. Qué riico, viejo* ('It's good, man. So delicious, man.') produced with L+H* L% and H+L* L% (Sp08_S8_M).

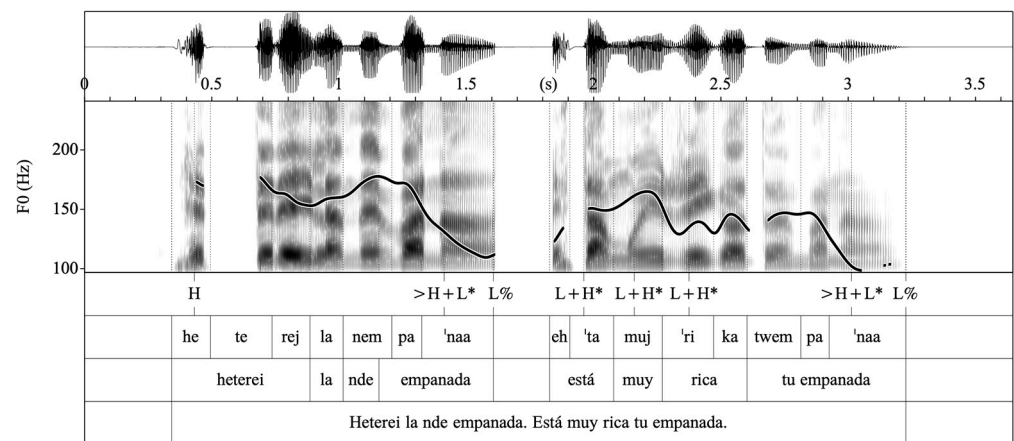


Figure 23. Waveform, spectrogram, and F0 trace of the non-neutral statement *Heterei la nde empanada* (lit. 'Delicious your empanada'). *Está muy rica tu empanada* ('Your empanada is very delicious') produced with >H+L* L% (Sp10_S7_M).

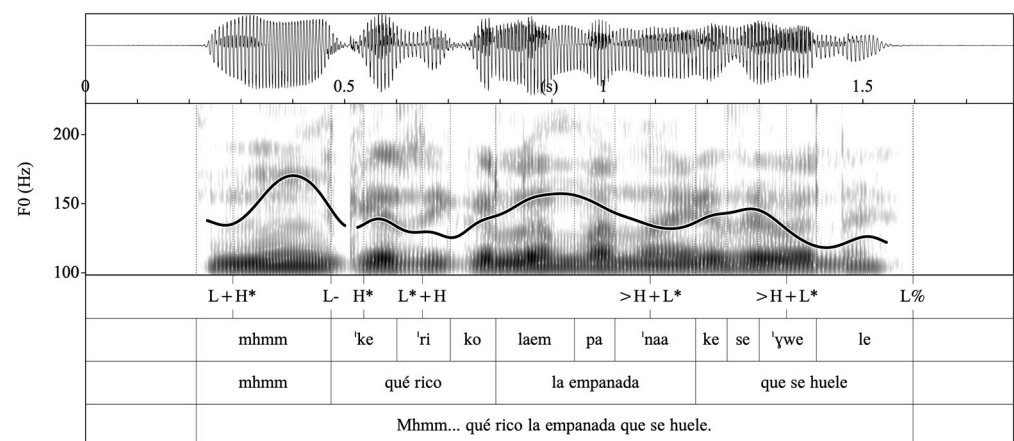


Figure 24. Waveform, spectrogram, and F0 trace of the non-neutral statement *Qué rico la empanada que se huele* ('How delicious the empanada that is smelled') produced with >H+L* L% (Sp05_S7_F).

5. Summary and Discussion of the Intonation of Paraguayan Spanish Statements

Paraguayan Spanish displays an interesting variety of intonation patterns influenced probably by Guaraní (at least to some degree) and further factors (see Figure 25 for the

summary of the most typical pitch accents and boundary tones, and Figures 26–28 for three main contours of neutral and non-neutral statements). Such factors may include not only language dominance, but also age, gender, education, or personality, and warrant in-depth investigation in the future.

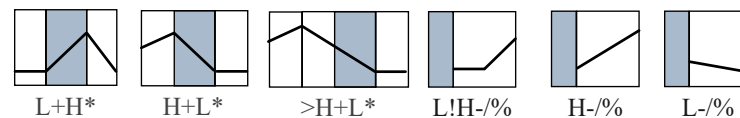


Figure 25. Schematic representation of the most typical nuclear pitch accents, $L+H^*$, $H+L^*$, and $>H+L^*$, and boundary tones, $L!H-$ or $L!H\%$, $H-$ or $H\%$, and $L-$ or $L\%$ in Paraguayan Spanish statements.

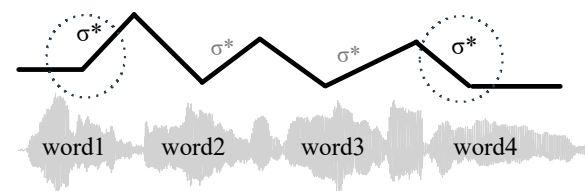


Figure 26. Schematic representation of a neutral statement in Paraguayan Spanish (Type I).

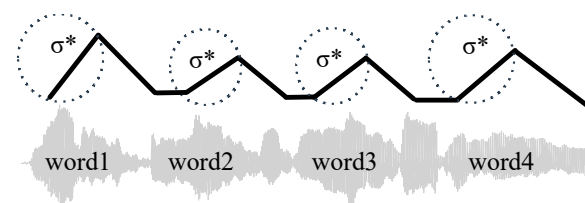


Figure 27. Schematic representation of a non-neutral statement in Paraguayan Spanish (Type IIa).

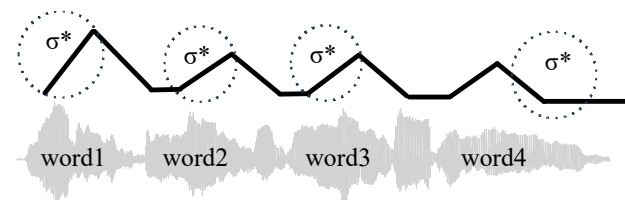


Figure 28. Schematic representation of a non-neutral statement in Paraguayan Spanish (Type IIb).

The intonation of neutral and non-neutral statements includes certain atypical patterns, such as pretonic prominence ($>H+L^*$) and pitch accents on unstressed syllables. The main nuclear pattern in broad-focus sentences is a falling F_0 followed by a low tone ($H+L^* L\%$). In prenuclear positions, sentences exhibit pitch accents with both delayed ($L+<H^*$) and early peaks ($L+H^*$), with the latter being more common in biased statements. In enumerations, speakers mostly use rising $L+H^* H-$ patterns or low $L^* H-$ pitch accents. In contrast, pitch accents are not realized in fast enumerations at all. The nuclear configuration is realized with $H+L^* L\%$ in this type of sentence. Narrow-focus statements and statements of the obvious are predominantly marked by a rising pitch accent followed by a low boundary tone ($L+(j)H^* L\%$), as seen in other varieties as well. Cleft and fronting structures emphasize the object with various pitch accents. Occasionally, the statements of the obvious are realized with $L!H\%$, and some biased statements end in $H\%$ when the last word is an oxytone. Exclamative sentences exhibit various tonal patterns, including $>H+L^* L\%$, $H+L^* L\%$, $L+(j)H^* L\%$, and $L+(j)H^* H\%$. The biased statements feature lengthening, Guaraní lexical borrowings, and additional pitch accents on unstressed syllables for emphasis or emotional expression.

In summary, almost all hypotheses built upon the very general first research question (RQ1) can be confirmed. First, rising pitch accents ($L+H^*$) were consistently produced in both prenuclear and nuclear positions, predominantly occurring on focused elements and in biased statements (see Figure 29; two instances of L^* detected in the GU-dom data were not included here). In contrast, falling patterns ($H+L^*$) were primarily produced in the nuclear position as a typical realization of neutral statements. The difference in the use of $L+H^*/H+L^*$ according to the type of sentence was statistically significant ($\chi^2(6, N = 164) = 44.433, p = 0.000$). In several cases, the falling pitch accent was phonetically realized with a pretonic prominence ($>H+L^*$), a pattern previously reported in Guaraní declaratives and (Paraguayan) Spanish questions as well. Furthermore, low boundary tones ($L\%$) are characteristic of both neutral and biased statements, as expected. $H\%$ was found only sporadically, typically with final oxytone words, and $L!H\%$ occurred twice with statements of the obvious. Finally, we can also tentatively suggest the presence of the Guaraní tritonal pattern (HLH^*) in those cases where the prosodic word had two pitch accent realizations. It goes without saying that additional data on both Spanish and Guaraní are needed to fully comprehend the intonational system of Paraguayan Spanish.

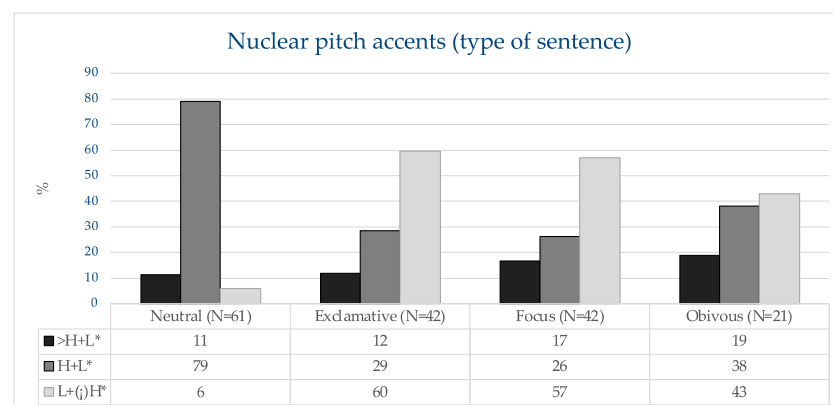


Figure 29. Nuclear pitch accents in Paraguayan Spanish statements, categorized by the pragmatic value of the sentence.

As for the second research question (RQ2), no statistically significant differences ($\chi^2(2, N = 164) = 2.694, p = 0.610$) were observed among the three groups of speakers in their use of the three most common pitch accents in Paraguayan Spanish (see Figure 30; again, the two instances of L^* were excluded here). We find the same patterns in bilinguals and monolinguals. Nevertheless, bilinguals exhibited a higher frequency of the “Guaraní” $>H+L^*$ pattern than the two young female monolinguals. It is important to note that caution is warranted here, given the very low number of monolingual speakers in our sample.

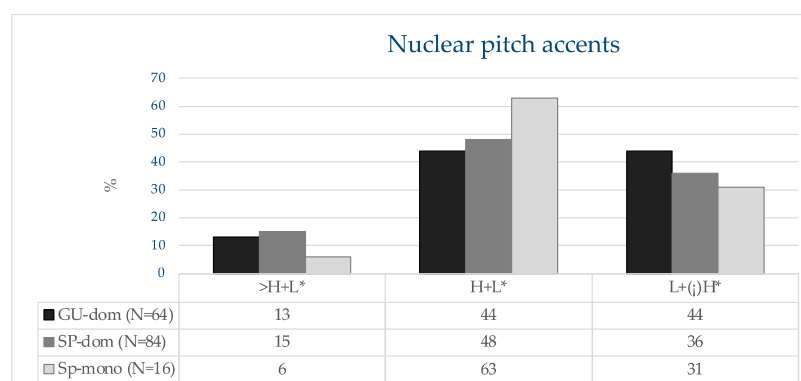


Figure 30. Nuclear pitch accents in Paraguayan Spanish statements across three groups of speakers (Guaraní-dominant bilinguals, Spanish-dominant bilinguals, and Spanish monolinguals).

This overall trend aligns with Pešková’s findings (Pešková 2022, p. 25) for yes/no questions, where she interprets the intonational similarities between monolinguals and bilinguals as a result of convergence driven not only by “intensive and widespread bilingualism and initial substratum transfer”, but also by simplification (i.e., reduction in forms) strategies. The same tendencies were detected in wh-questions of Paraguayan Spanish too (Pešková 2024).

Another aspect that can significantly contribute to the convergence processes is the presence of informal Jopará within the Paraguayan community and the broader integration of Guaraní lexical elements into Spanish. For example, in bilingual Paraguayan Spanish, it is common to incorporate Guaraní particles *piko*, *pio*, and *pa* into yes/no questions and wh-questions (see, e.g., Herring 2015; Estigarríbia 2021; Pešková 2022, 2024 for further details). In contrast, this is not the case for bilingual Basque Spanish, to give another example of a contact language scenario. While Basque also has question particles, they are not transferred into (Basque) Spanish. The explanation could be that there is no mixed variety comparable to Jopará in the Basque Country. It appears that many bilingual Basque–Spanish speakers tend to maintain a clear separation between the two language systems. Interestingly, in their findings on yes/no questions in Basque urban areas, Elordieta and Romera (2021) observed that increased contact with Basque, along with positive attitudes toward Basque language and culture, leads to a stronger implementation of distinctive Basque prosody. This feature, in turn, helps identify individuals as part of the Basque community. Hence, future research should explore attitudes toward different linguistic structures and languages in Paraguayan society to better understand the mutual influences in language contact situations and sound change.

The present findings suggest that prosody is more sensitive to convergence than other linguistic levels in Paraguayan Spanish. For instance, Guaraní lexical items are only present in bilingual productions. Additionally, based on my impressionistic observations, bilinguals in the present study also exhibit more transferred sounds, such as glottal stops and labiodental voiced fricatives, which do not exist in the Spanish sound system. And finally, Pešková (2023b) demonstrated by means of acceptability judgments that a higher dominance of Guaraní facilitates syntactic innovations in Paraguayan Spanish. Specifically, this includes the acceptance of preverbal subjects in wh-questions *¿Qué ella cocina?* (lit. what she cooks; ‘What does she cook?’) that is not typical for Spanish (see, e.g., Torrego 1984; Goodall 2010).

6. Concluding Remark

Based on the Discourse Completion Tasks, this study explored the intonation patterns of neutral and non-neutral statements in Paraguayan Spanish, a variety that has been in an intensive contact with Guaraní and received only little attention so far. We reported and discussed three main contact-induced phenomena that represent Paraguayan Spanish intonation (7):

- (7) Contact-induced Intonation of Paraguayan Spanish:
 - i. *Simplification strategies*: L+H* in the prenuclear and nuclear position; two main nuclear patterns, H+L* L% and L+H* L%;
 - ii. *Strong macrorhythmicity*: repetition of the same pitch accents;
 - iii. *Lengthening strategies* (especially in biased statements).

In sum, the “echoes of Guaraní” resonating throughout the landscape of Paraguayan Spanish enrich our knowledge of this lesser-studied Spanish variety. The study reveals the significant influence of Guaraní on Paraguayan Spanish intonation. Through an in-depth analysis, we have identified several innovative intonation patterns in both prenuclear and nuclear positions unique to this variety. It is my hope that, despite the limited number of speakers and the absence of Guaraní data, the present findings enhance our understanding of the interplay between Guaraní and Spanish in Paraguayan Spanish and provide valuable insights into contact linguistics.

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Notes

- ¹ L*+H corresponds to L+<H* in the last versions of Spanish ToBI (see, e.g., [Hualde and Prieto 2015](#)).
- ² The method and text are built upon prior work ([Gabriel et al. 2020](#); [Pešková 2022, 2024](#)). While there have been some adjustments and rephrasing to align with the current context, certain similarities with those sections are inevitable.

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