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<u>AUTOR</u>: Esp. Aguirre Sotelo, Evangelina

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<u>DIRECTORA</u>: Mgtr. Giménez, Florencia

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TABLE OF CONTENTS

Introduction

Learning the intonation system is a challenge for any student of a foreign language (FL) due to the fact that the so-called 'melody of the language' is an aspect that few people ever bring to the level of consciousness (Sinclair & Coulthard, 1975, p. 94). However, mastering intonation is of paramount importance since it has been found to be "a resource for the construction of meaning" (Halliday & Greaves, 2008, p. 14) and, as such, it is "a very powerful tool for negotiating meaning and achieving discourse coherence" (Chun, 1988, p. 81). Any change in the use of intonation patterns may represent changes in the meanings conveyed in the final message, not only as regards speakers' attitude, but also in terms of the information structure perceived by interlocutors (Halliday, 1970). Thus, when teaching a FL, this feature should not be neglected if the ultimate objective is that students become communicatively competent.

In the process of learning a FL, students go through different stages of competence and form a unique linguistic system that contains features pertaining to both, their L1 and L2, called Interlanguage (IL). This happens at all levels of the language, including the phonological one (IL phonology).

The present study intends to examine tone selection to signal information status by undergraduate students of English as a foreign language (EFL) in the Phonetics and Phonology I course at the School of Languages, Universidad Nacional de Córdoba. This analysis, which is mainly perceptual but also supported acoustically, aims to detect the most common problems in the use of intonation contours of a group of EFL learners and to describe these learners' IL phonology.

Findings from this study support other studies' findings that suggest that there exist non-native IL intonation systems. In the data analyzed, the falling tone was predominant, and the participants frequently used this tone to signal contextually given information. Together with the falling tone, the falling-rising is one of the most common tones in native English. In our study, the participants, by contrast, often used the falling tone in contexts where the falling-rising tone was the most appropriate choice. As a result, the non-native speakers sometimes failed to show the pragmatic use of intonation patterns to signal differences in information status.

It is considered that this study may contribute to the field of Second Language Acquisition (SLA) by providing hints in relation to the IL intonation systems of undergraduate students learning English at university level.

Statement of the problem

<mark>The process non-native speakers of English undergo when they acquire the English intonation system has been the concern of applied linguists for the past fifty years.</mark> As we have already said, intonation is "an aspect of language that few people [native speakers] ever cause to bring to the level of consciousness" (Sinclair & Coulthard, 1975, p. 94) and that presents difficulties to FL learners. As a result, to aid the teaching and learning of intonation, several models have been developed (Jenkins, 2004).

At the School of Languages, Universidad Nacional de Córdoba, where EFL is taught in five-year undergraduate programs, Discourse Intonation (Brazil, 1997) is the model that has been adopted to instruct students in the meaningful choices involved in the use of the English intonation system. To pass the Phonetics and Phonology I course, students need to fully grasp the communicative value of the different tones in English. In order to succeed in this course, students receive guided instruction and go through intense practical work, which includes auditory discrimination and recognition, imitation and spontaneous production through reading sample texts aloud and engaging in guided, semi-guided and free communicative activities.

We have detected that when students in Phonetics and Phonology I are in the process of learning the communicative value of tones, they have difficulties signaling the status of information. This may bring misunderstandings and/or communication breakdowns when interacting with others.

Research questions

The detected problem has led us to consider the following research questions:

- Which problems in the selection of falling and falling-rising tones are identified in the oral production of Phonetics and Phonology I students when carrying out a semi-guided activity?

- Do Phonetics and Phonology I students use the falling-rising tone in their oral production? If so, do they use the falling-rising tone to signal given information in their oral production?

- Do Phonetics and Phonology I students use the falling tone in their oral production? If so, do they use the falling tone to signal new information in their oral production?

In order to learn more about this problem and, in the future, try to address it, we have set objectives to guide our research.

Objectives

Main objectives

- To gain insights into students' IL intonation systems regarding the use of tones to signal information status.

Specific objectives:

- To analyze the intonation choices made by Phonetics and Phonology I students to signal information status in semi-guided oral activities.
- To identify problems in the use of falling and falling-rising tones in Phonetics and Phonology I students to signal information status in semi-guided oral activities.
- To suggest possible explanations for the problems identified that may guide future actions.

So as to meet these objectives and answer the research questions, it is important to review other research that has addressed intonation difficulties among EFL learners.

Literature Review

For several decades during the second half of the twentieth century, there has been genuine interest in applying contrastive analysis to FL pronunciation research (Jenkins, 2004).
Some early studies have found interesting evidence in relation to the use of English intonation by Spanish native speakers. Bowen (1956, as cited in Valenzuela Farías, 2013) stated that

Spanish intonation shows two kinds of stress (weak and strong), three terminal contours (rising, falling, sustained), and three kinds of pitch levels (low-1, mid-2, high-3). This author discovered that Spanish speakers reading utterances in English negatively transferred L1 intonation patterns. In the case of emphatic sentences, the pitch level in English is too high in comparison with Spanish. Some distortion in the production of yes-no questions was also identified. Spanish speakers produced yes-no questions with a high-level pitch at the end. When these speakers produced the same sentence in English, they sounded over-emphatic. Bowen's highlights the importance of helping students become aware of the main differences between Spanish and English intonation and of exposing them to the L2[1] in order to achieve proficiency.

Other related studies, such as the one carried out by Graham (1978, as cited in Valenzuela Farías, 2013), revealed that both Spanish and English share certain intonation patterns like the use of a rising pitch at the end of questions. However, and in line with Bowen's study, this author stated that these two languages differ in the number of pitch heights; while English has four different pitch levels, Spanish has three and the pitch span in which these three levels are produced is much more restricted. The English extra-high pitch usually indicates enthusiasm and happiness and that is something Spanish speakers may find difficult to produce in English. Besides, according to Graham (1978), English questions are significantly flexible, so intonation plays an essential role to signal emphasis. On the contrary, in Spanish, this flexibility on intonation seemed not to be important in questions since Spanish speakers would resort to other linguistic tools such as changing the sentence word order or adding new words to convey the same emphatic effect.

In their study, Chela-Flores & Chela-Flores (2003) confirmed Graham's findings (1978) in relation to the similarities between Spanish and English pitch movements in questions with rising intonation but contradicted Graham's work by stating that both Spanish and English have four pitch levels. The only difference lies in the meaning and the importance that these four pitch heights have in both languages. Actually, they found that Spanish learners of English could not understand how the four high pitch levels work in English in order to

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[1]Even though the terms *foreign language* and *second language* refer to different learning environments and contexts, in this study, in which the focus is on FL learning, we will also draw from research carried out in contexts in which English is an L2 since it has been found that learning and L2 and a FL involve similar psycholinguistic processes (Gass & Selinker 2008).

produce emphatic sentences. They concluded that Spanish speakers found difficulty in distinguishing pitch shifting and applying it to English sentences.

There are other research works that have specifically focused on the pitch contours used by Spanish speakers learning English that are of interest for our study. Ramirez Verdugo has been studying English intonation and particularly the IL phonology of non-native speakers of English for many years. In 2002 she carried out a cross-linguistic intonation study which analyzed the role of the intonation systems used by native Spanish speakers and native English speakers. A group of 20 Spanish young adult speakers was recorded reading aloud 40 short conversations in English. This corpus was contrasted with a similar corpus of speech samples produced by English native speakers. The data were analyzed quantitatively using software tools, automatic and manual annotations and statistical calculation. She concluded that native speakers of English make use of tone choices in order to express the difference in the status of information. In this way, a falling tone is used to convey new information, while a low rise denotes given information. A qualitative interpretation of this analysis showed that non-native speakers did not express such contrast and that they avoided the use of a low-rise tone to express given information, overusing a falling tone. Moreover, non-native speakers often made prominent those portions of information that referred to given rather than to new information. Besides, there was a tendency for non-native speakers to locate the tonic on the last sentence item, independently of its status or grammatical category. These findings seemed to suggest the existence of a non-native IL intonation system.

In 2005, Ramirez Verdugo focused on the pragmatic differences and the communication effects in the expression of certainty and uncertainty on spoken discourse. The study analyzed the prosodic forms produced by Spanish speakers learning English and compared them to the prosodic forms produced by native speakers of English in order to interpret the pragmatic meanings expressed in discourse. A cross-linguistic computerized corpus was compiled. Language samples in which participants had to read aloud and interpret short conversations in English were digitally recorded and acoustically analyzed. Once again, the results revealed that those Spanish learners avoided the use of the fall–rising tone to express lack of certainty; instead, they used falling tones in all contexts. Besides, the analysis also revealed that most of the falling tones were produced with a narrow pitch range, which showed lack of absolute certainty in their responses. In this way, non-native speakers of English did not make a clear

distinction between certainty and uncertainty. With this difference between the tone system chosen and what was expressed by the lexico-grammatical forms, the message transmitted by the non-native speakers showed lack of pragmatic accuracy.

Valenzuela Farías (2013) carried out a study to determine the similarities and differences in intonation while producing tag questions, wh-questions, inverted questions and repetition questions among native English speakers and Spanish speakers learning English. Participants had to read a set of questions at first sight. The same sets of questions were given to Spanish and English speakers in English, but the Spanish speakers were also asked to read the same questions in their native language. The tone choices were measured and acoustically analyzed using Pratt. The study revealed that there are both similarities and differences between the use of intonation in both groups of speakers. The study showed that intensity was similar in the four sets of questions, even though English speakers produced the questions louder than the Spanish ones. Both groups of speakers also shared the average pitch and final rising in repetition, inverted, and tag questions. In the case of inverted questions, English speakers and Spanish speakers employed similar intonation strategies since this type of questions end with rising intonation in both groups. The actual difference lies in the pitch or level contours. Pitch rose quite significantly among English speakers, but it only rose moderately among Spanish speakers. Besides, the Spanish speakers did not use the same pitch range in wh-questions in comparison with native English speakers. Spanish speakers also made important changes while uttering sentences in each language (English and Spanish). The obtained data can help EFL teachers and students identify plausible problems when learning English intonation.

On their part, Barrueto Franco, Concha Rojo & Rebolledo Moreno (2016) undertook a study which aimed at analyzing intonation regarding pitch height, intensity and pitch contour produced by Spanish native speakers when producing utterances in English to determine if participants transferred their native language intonation into English. Twenty-four participants who had studied for at least five years in an English teaching program in Chile were divided into two groups: participants who had spent a semester abroad and those who had not travelled abroad. For the purpose of the study gender was also considered in the analysis. The data collection instrument included declarative statements, wh-questions and yes-no questions. The samples were acoustically analyzed using Praat. The results of this research showed that the participants transferred Spanish intonation into English depending on the participants'

experience in and exposure to the FL. This process was even more noticeable in the production of wh-questions by both groups of participants.

Despite the valuable contributions of these studies, researchers tend to conclude that there is a need for more in-depth research and analysis of IL intonation. To our knowledge, no research has been carried out with focus on intonation choices of Spanish speakers in English teacher-training and translator-training programs at university level.

THEORETICAL UNDERPINNINGS

The following theoretical considerations have been the basis of our research and have served as the matrix for the analysis of the collected data.

Interlanguage

Selinker (1972) coined the term *interlanguage* (IL) to refer to the linguistic system that a second language (SL) learner builds during a learning process. This system is unique to each language learner and contains features pertaining to the L1 and the L2 as well as idiosyncratic features.

There are different cognitive processes that take place while learning a SL or FL (Selinker, 1972). One of them is especially important in the context of the present study: *transfer*. When learning a language, the L1 plays a very important role, especially in the field of Phonology, since learners establish connections between the input received and their previous linguistic knowledge. It has been found that L1 and L2 similarities facilitate learning (positive transfer) while differences may, at times, interfere with acquisition (negative transfer or interference).

Considering intonation, it has been found that FL learners tend to transfer the L1 intonation features to the L2 and this may lead to miscommunication and even unintelligibility when interacting with native speakers (Ramirez Verdugo, 2006). In fact, one of the challenges Spanish speakers have to face when learning English intonation is related to pitch range when producing intonation contours (Celce-Murcia, Brinton & Goodwin, 1996) since Spanish speakers exploit a much narrower pitch range than English speakers. Besides, the L1 influence

can affect the way Spanish speakers perceive and apply intonation rules while speaking English (Valenzuela Farías, 2013).

Learning and mastering a FL implies knowing a series of complex linguistic aspects that make up what is known as communicative competence. According to Canale (1983), communicative competence refers to:

> "both knowledge and skill in using this knowledge when interacting in actual communication. Knowledge refers here to what one knows (consciously or unconsciously) about the language and about other aspects of communicative language use; skill refers to how well one can perform this knowledge in actual communication" (p.5).

Canale & Swain (1980) state that this competence is made up of four main components that interact constantly to help the language learner achieve language proficiency: linguistic, sociolinguistic, discourse and strategic competences. Particularly, linguistic competence refers to the knowledge of the language code *per se*, including the lexical, morphological, syntactical and phonological features of the language and their use to form words and sentences.

Then phonology and, as one of its components, intonation is part of a learner's communicative competence. When training future language professionals the ultimate objective is that students become communicatively competent. It is for this reason that it is important to recognize and produce in a guided and spontaneous way the different intonation contours of English considering their communicative value. In the context of our study, intonation is of paramount importance because it is closely related to how beliefs, attitudes and emotions are expressed during an act of speech (Ramirez Verdugo, 2006; Real Academia Española, 2011; Whitley, 1986). That is why mistakes in the use of intonation patterns "may affect comprehension negatively and bring the wrong pragmatic effects to the spoken discourse" (Ramirez Verdugo, 2005, p. 2089).

This is the reason why it is essential for undergraduate students to master these aspects of the FL phonological system. Understanding our students' IL systems and analyzing their characteristics may allow us to design strategies that favor learning.

Discourse Intonation

Although we cannot deny the existence of other models of intonation (Halliday & Greaves, 2008; Pierrehumbert & Hirschberg, 1990, among others), for teaching and learning purposes, at the School of Languages, Universidad Nacional de Córdoba, we have adopted the model devised by Brazil (1997) and Brazil, Coulthard & Johns (1980), called Discourse Intonation (DI), for several reasons. First, DI conceives discourse as a whole in which prosody is a linguistic level that contributes to meaning making in an independent way, the same as the other levels of the language, such as the syntactic or lexical one. Second, for DI, context is a key element to analyze and understand discourse. Finally, the model has teachability advantages because it presents four subsystems which involve a reduced number of choices available to speakers to convey a great variety of meanings.

According to DI, the minimal unit of analysis is the tone unit. It is there that speakers can make meaningful choices within the four subsystems intonation consists in: prominence, tone, key and termination. In this work, we are going to refer to just the subsystems of prominence and tone because the other two are not covered in Phonetics and Phonology I.

Prominence is the term used to signal the meaningful choice which "depends crucially on the speaker's ability to make certain syllables more noticeable than others" (Roach, 2011, p. 70). Prominence "is produced by four main factors: (i) loudness, (2) length, (3) pitch and (iv) quality" (Roach, 1991, p. 86).

Moreover, a *tonic syllable* is one which is prominent but on which the major pitch movement takes place; in other words, it is the syllable that carries the tone. *Tone* makes reference to "an identifiable movement or level of pitch that is used in a linguistically contrastive way" (Roach, 2011, p. 92). In other words, this term refers to the melodic or pitch movement which is distinguished by a particular direction or contour initiated on the tonic syllable. DI distinguishes five different tones, taking into account the status of information and the discursive relationships among the participants in the communicative situation: the *falling* or *proclaiming tone,* the *falling-rising* or *referring tone,* the *rising* or *referring+ tone*, the *rising-falling* or *proclaiming+ tone* and the *level tone.*

Brazil et al. (1980) studied the frequency of occurrence of these five pitch movements in the English language. Their findings showed that the falling and the falling-rising tones were the

most frequently used. According to these authors, this is so because these two tones represent basic distinctions: the status of information, the social meanings of tones and the roles and status of the speakers in a communicative situation.

Considering only information status, which is the focus of our study, tones help speakers present information as new and as shared, i.e. information that is part of the common ground. Brazil et al. (1980) point out that by *common ground* they mean the knowledge the speakers think they share about the world and about each other's experiences, including their attitudes and emotions. What is interesting, according to this perspective, is that tone choices are not predictable, and they are not dependent on the linguistic features of the message. It is rather up to the speakers' choice to assess the relationship between the message and the audience and then present information as already shared, through the use of referring tones, or as new, through the use of proclaiming tones.

As stated before, the function of referring tones is to mark the experiential content of the tone unit as part of the shared, already negotiated common ground. As an example, let us analyze the following exchange:

A: When do you eat?
B: // I usually cook a ↘↗ meal // in the ↘evening //

In the previous example, speaker A wants to know when speaker B eats. As a response, speaker B takes the expression "cook a meal" as part of the shared information which belongs to the common ground between the participants of this interaction. In other words, this portion of information is treated as part of the shared universe of reference as it has already been mentioned in the question, and this is why speaker B chooses to use the referring tone in this case. The new information is *when* speaker B cooks, and to present that, speaker B uses the proclaiming tone. Thus, proclaiming tones mark information as new, and in this case, the area of common ground will be enlarged.

General characteristics of Spanish Intonation

According to the Royal Spanish Academy (Real Academia Española, RAE), intonation is used to fulfill different functions. Considering the grammatical one, tones are used to distinguish an affirmative sentence from an interrogative one. Considering the organization of information in an utterance, intonation serves the function of organizing the content of discourse into information units (tone units) to facilitate their interpretation. Finally, considering the speaker's point of view, tones can help focus on a particular content in the utterance and draw attention to a particular portion of the message (RAE, 2011).

Many scholars agree on the fact that Spanish is a language in which focal accent falls on the last constituent in the tone unit, and that information structure is expressed through syntactic restructuring (Labastía, 2006). In fact, Cruttenden (1997) has characterized Spanish as a language with focal prominence which tends to have a fixed position, particularly, on the last lexical item in the tone unit. This can lead the speaker to make old information prominent, a phenomenon referred to as re-accenting. This author identifies French and Spanish as having the highest incidence of re-accenting, whereas English and German have the lowest. As stated by Labastía (2006) "relative semantic weight and informativeness seem to be a key factor in the location of accent in [Germanic] languages, and anaphoric phrases with an explicit or implicit antecedent in the discourse can be deaccented" (p.1686). In contrast, Romance languages such as Italian or Spanish tend to resist deaccenting, and to achieve similar effects by restructuring the order of constituents. Indeed, the most informative portion of an utterance ends up at the rightmost position in order to receive nuclear accent in this position (Cruttenden, 1997).

Different authors refer to the fact that Spanish is a language with a narrow variation in intonation (Valenzuela Farías, 2013; Whitley, 1986; among others). For instance, English has more pitch movements and more intonational variations in comparison with Spanish. In general, it can be said that "the intonation contours of English range over four pitches, whereas those of Spanish range over three" (Whitley, 1986, p. 68).

Spanish tones represent the tonal configurations of pitch movements which are identified as falling, rising and level tones. According to Terrell & Salgués (1979, as cited in Whitley,

1986) a terminal rise or fall, that is, the intonation pattern signaling the end of an utterance, tend to be sharp and abrupt in Spanish but more gradual and trailing off in English.

Now, if we take into account the use of the falling tone in Spanish, as in English, we can generalize and state that it is a tone used in affirmative and negative statements (e.g. *Hoy vino Juan* or *Hoy no vino Juan*), that is to say, in declarative sentences (Quilis, 2000; RAE, 2011; Whitley, 1986). Like in English, in Spanish, the falling tone is also used in questions with an interrogative adverb or pronoun (*¿Quién llamó?*), especially if the speaker ignores the content of the answer (Quilis, 2000; RAE, 2011).

According to Ramirez Verdugo (2005), Sosa did not find examples of a fall–rising tone in his Spanish corpus. What is more, this author argued that the form and function of the English fall–rise tone would not fit into any grammatical context in Spanish. This may explain the results obtained by Ramirez Verdugo's study in which Spanish learners transferred their L1 intonation pattern to their L2. As the falling-rising tone is not part of the tonal inventory of their L1, these non-native speakers of English could not rely on their previous and subconscious knowledge when performing in this L2.

Nevertheless, there are contradictory positions in relation to the existence of the fall-rising tone in Spanish, particularly if we take into account language varieties. Labastía (2006, 2016) studied Argentinian Spanish intonation from the perspective of the Relevance Theory (based on the works by Sperber & Wilson, 1995). This is a cognitive-pragmatic theory which divides the information in terms of background information (contextual) and foreground information (relevant information in an utterance). According to Labastía (2016), in English, the use of a falling-rising tone was found in utterances where speakers marked the content as background information. In contrast, the foregrounded information was marked with a falling tone. In Argentinian Spanish this falling-rising terminal was also found in utterances where a speaker marked the information as background. The speaker's voice started falling on the tonic syllable and continued falling in the post-tonic ones and rose on the last post-tonic syllable. Unlike English, the tone most frequently used to indicate that the content in the tone unit forms part of the foreground information in Argentinian Spanish is the level tone. The speaker's voice stays in middle level, even though it can fall slightly in the post-tonic syllables. We can see this in the following example:

/ CREo que es MUY impor↘↗**TANte para mi** / conoCER a mi →GENte / conoCER mi argen→TIna /cono→CER / lo que le PAsa a los disTINtos niveles so→CIAles /

<div align="right">(Labastía, 2016, p. 135).</div>

From Labastía's perspective, the tones in both languages share similar features that favor a positive transfer from one language onto the other. However, he suggests the need for further and more detailed research in comparing the meanings conveyed by tones in each language in order to obtain more specific information about their use.

Labastía's work is significantly relevant for our work because it makes focus on the use of the falling-rising tone by Spanish speakers producing English utterances. This author's findings provide significant insights into the repertoire of intonation contours in Argentinian Spanish, and we hope we can increase our understanding of the use of the falling and falling-rising tone in the study we are going to describe in the following section.

METHODOLOGY

Context and Participants

The present study was carried out at the School of Languages, Universidad Nacional de Córdoba, Argentina, where mainly native Spanish-speaking students take up five-year programs of study to become EFL teachers, translators and/or researchers. These students receive phonological training in English during three years by attending three annual courses: *Pronunciation Practice* in first year, *Phonetics and Phonology I* in second year, and *Phonetics and Phonology II* in third year. In the *Pronunciation Practice* course, students are introduced to the inventory of English vowel and consonant sounds and some of their allophones, together with the recognition and production of weak and strong forms and endings. In the *Phonetics and Phonology I* course, students are expected to identify and use phonemic adjustments in reading passages and in activities that involve guided and spontaneous speech. They are also required to become familiar with the English rhythm by learning the effective use of prominence and the system of English intonation. In order to help students reach an adequate level of competence, classes combine theoretical and intense practical work. Finally, in the *Phonetics and Phonology II* course, students continue dealing with the intonation system of

English and focus on the subsystems of key and termination, together with the concepts of pitch sequence, and orientation when reading aloud. What is more, topic structure and the role of discourse markers are practiced in a variety of text types. Students are also expected to use phonetic, phonological and paralinguistic features effectively.

Second-year students in the *Phonetics and Phonology I* course are supposed to manage the features of English taught in first year. By the end of the course, students must manage English accentuation and rhythmic patterns effectively and should be able to identify and use the different intonation contours in an effective way. This means that students need to develop adequate perceptive and productive skills in order to become competent language professionals.

Twenty-four native Argentinian Spanish-speaking undergraduate students (21 female and 3 male) who regularly attended Phonetics and Phonology I classes participated in this study. The group was representative of the student population that generally enrolls in second year in terms of age and sex, and also presented a similar proficiency level of English as a FL as they had all passed first-year subjects in English (grammar, language and phonetics) and had just become students in good standing (i.e., they had already passed two term tests) in Phonetics and Phonology I.

Data Collection Instrument, Methods and Procedures

Granger (1998) stated that non-native language corpora may provide relevant information about what is typical in a particular language and what might be difficult for language learners. For this reason, we recorded our students' oral performance in order to address the research questions posed previously in this work.

The data collection instrument was a short informal dialogue between two university classmates to be read aloud (see Appendix). The task is considered a semi-guided communication activity since, although students were given the dialogue, they had to interpret it and use intonation freely when they read the material aloud. The data were collected towards the end of the academic year, after full training in the use of intonation patterns had finished.

The students were asked to get in pairs, received the instructions, and were given some time to get familiar with the material before they were recorded. The time allotted to prepare the

conversation was from ten to fifteen minutes. Finally, the pairs were recorded reading the conversation aloud.

The researcher was in charge of the recording process, the coding of the samples and the analysis of the highlighted sections that formed part of the research data. Numbers were assigned to the recorded samples. As they were conversations between two people and the focus was on identifying the tone choices of each speaker, each utterance under analysis was coded with G (Group) and a number. In turn, within each sample, each speaker was coded with S (Student) and a number. One sample had to be discarded because of the presence of noise, which impaired the correct analysis of tone choices.

As one of the main objectives of this work was to analyze the use of tones in semi-guided oral activities when signaling information status, we selected five utterances[2] where students had to make meaningful tone choices based on information status. Care was taken to select salient examples in which both new and shared information was presented.

The utterances that were selected as part of this research analysis are the following:

  (1) *Fine?*

  (2) *You don't look like fine, to tell you the truth.*

  (3) *Sociology?*

  (4) *getting some exercise is a great way to wind down.*

  (5) *It wasn't a bronze medal, but a silver one.*

The intonation choices of each selected utterance were auditorily analyzed by the main researcher and an external rater, both experts in English phonetics and phonology. The analyses were compared. The differences were discussed, and the researchers tried to come to an agreement. When that was still not possible, the data were analyzed acoustically using

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[2] Due to space and time restrictions, it was not possible to analyze all the intonation choices made by all the participants in the whole dialogue.

Praat. Each of the selected utterances was transcribed using the conventions applied in *Phonetics and Phonology I*, which is an adaptation of Brazil's annotation system[3].

Discussion of the Research Findings

The analysis we present below is mainly qualitative. As Brazil points out, "speakers do have the option of producing alternative versions of some units" (1997, p. 7). Thus, each utterance was analyzed in terms of the participants' intonation choices. Next, the findings are discussed.

Utterances 1 and 3:

(1) Fine?

(3) Sociology?

Considering the context of the whole dialogue given, these are echo questions that, according to Wells (2006), "may be … simple request[s] for repetition or clarification [of information that has already been presented], or … may express surprise and amazement" (p. 55).

In the corpus, most students produced situationally and intonationally correct versions in these cases. Particularly, in utterance 1, eight students used the falling-rising and three used a rising tone. These two options can be considered correct since they are both referring tones conveying shared information. The only difference is that the participants using the rising tone seemed to have assumed a more dominant role in the interaction.

As we can see in Figure 1, all the pieces displaying shades of blue represent correct versions. Thus, most of the participants made a correct intonation choice in Utterance 1.

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[3] At this point, it may be important to state that instead of representing proclaiming and referring tones as *p* or *r*, we described pitch movements by using arrows (↘ or ↘↗) because, apart from the fact that that is the actual realization of these tones in British English, arrows are more visually effective as they are easier to understand.
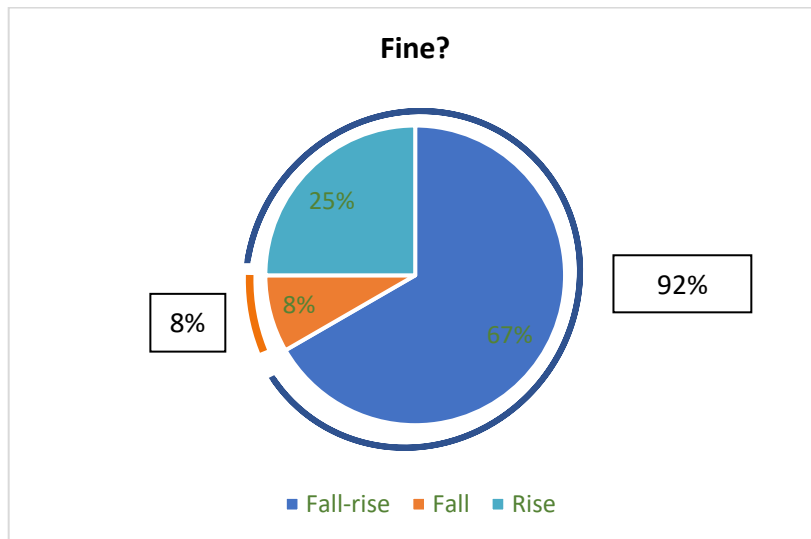
Figure 1.Intonation choices for Utterance 1

In the case of Utterance 3, as Figure 2 displays, seven out of 12 participants (58%) used referring tones: six used the falling-rising and one used a rising tone to convey shared information.
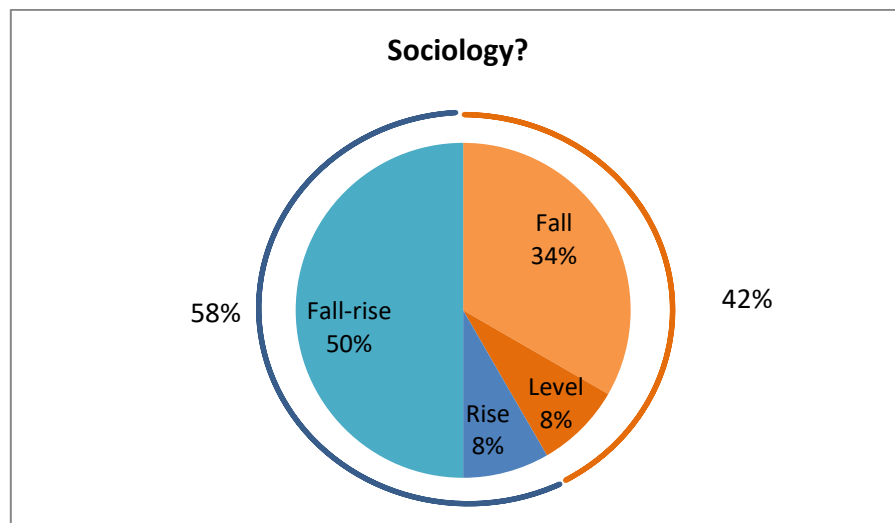

Figure 2. Intonation choices for Utterance 3.

In this tone unit, the second most used tone in the corpus was the falling intonation, i.e. 34% (four out of 12 participants). Although a falling tone is also a possible option in Utterances 1

and 3, this should have been produced with a high pitch. That was not the case in the participants that chose this tone when producing these utterances. In line with Bowen's study (1956, as cited in Valenzuela Farías, 2013), this may have been produced due to the fact that Spanish speakers have a restricted pitch span and find high pitch in English difficult to produce. Consequently, this option sounded awkward since, from the point of view of information status, this tone signals new information. Besides, the participants who used the falling tone placed themselves outside the area of convergence and seemed to express disagreement by directly confronting their interlocutor's view. As a result, the meaning transmitted is the opposite of what would be expected.

Utterance 2:

(2) You don't look like fine, to tell you the truth

In Utterance 2, there are interesting findings, not only related to the choice of tone, but also related to the way participants decided to segment the information. Only four students produced a situationally appropriate version of this utterance: You ˈdon't look like ↘︎fine, to tell you the truth.

For different reasons, the rest of the students, eight, produced situationally or intonationally inappropriate versions of this utterance. Although two of them succeeded in signaling information status, one of them used a fall-rise on 'fine' (shared information) and the other a falling on 'look' (new information), the eight students displayed awkward "chunking" (Wells, 2006, p. 7); they all made a pause and produced another tone unit when they uttered the opinion disjunct 'to tell you the truth', which, from the grammatical point of view, is a peripheral element of the sentence and, as such, it is not informative at all.

What is interesting is that, as Figure 3 shows, eight out of 12 students (around 67%) made inappropriate choices in this particular utterance, either by using a falling intonation on given or repeated information or by dividing the utterance into two different tone units and choosing a contextually inappropriate tone in the second one.

This performance may show the influence that punctuation exerted on these readers aloud[4], as well as the difficulty that participants had in producing long "enclitic segment[s]"[5] (Brazil, 1997, p. 13), especially when the chosen tone is the falling-rising. In this case, some of the students in the study located the tonic in the last word of the utterance ("truth"), showing some kind of L1 interference. This phenomenon seems to support Ramirez Verdugo's (2002) findings that native Spanish speakers of English "tend to make the last syllable prominent" (p.129), which goes in line with Cruttenden (1997), who referred to Spanish's focal prominence, which tends to fall on the last lexical item in the tone unit.
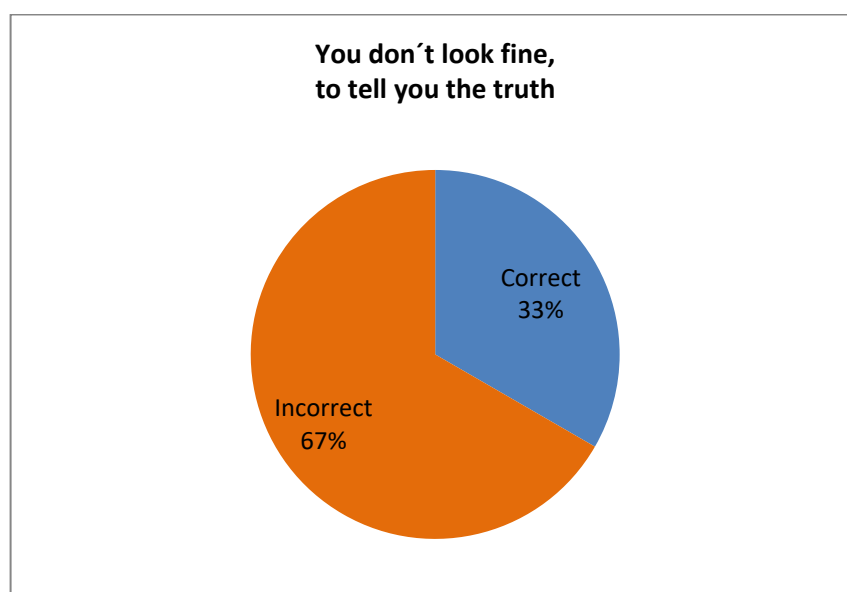

Figure 3. Accuracy when producing Utterance 2.

Utterance 4:

(4) getting some exercise is a great way to wind down

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[4] Punctuation marks are an imperfect reflection of the possible prosodic and pausal features of a text (Grandlay, 2002, p. 48)

[5]The enclitic segment is the segment coming after the last prominent syllable in the tone unit. As these segments should not contain prominent syllables, they cannot carry any tone (Brazil, 1997).

This utterance displays both shared and new information. That might be the reason why all the participants divided it into two tone units. The first tone unit, "getting some exercise", is referring to information previously mentioned in the interaction or to information that is recoverable from the given context ("What do you usually like doing in your free time?", "I love going for a run or for a swim").

In the analyzed corpus, only four students used referring tones in Tone unit 1: three used the falling-rising tone to refer to given information and one used a rising tone, which is also possible, despite the fact that this tone choice displays a more dominant position in the interaction. What is interesting is that the majority of the participants, eight out of 12 (around 67%), made contextually inappropriate intonation choices in this tone unit: seven students used a falling intonation and one, a level tone. It can be speculated that these students perceived this information as new, or that they were still not fully aware of the communicative value of tones. Figure 4 displays the results related to Utterance 4, Tone unit 1:
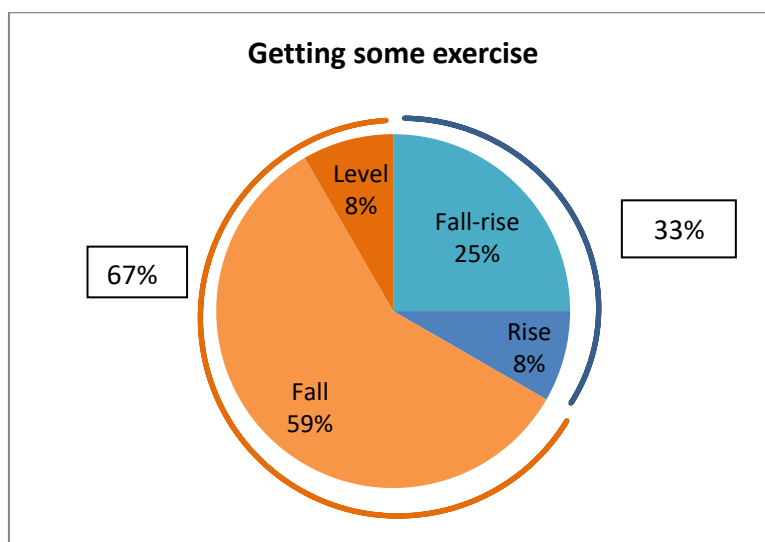

Figure 4. Intonation choices for Utterance 4, Tone unit 1.

Tone unit 2 introduces contextually new information: the speaker is introducing his/her opinion about doing exercise. The results indicate that almost all the participants used a falling contour in this utterance, except for one participant who used a level tone (see Figure 5). The data seem to suggest that as new information is typically signaled by falling intonation

contours in both English and Spanish (Labastía, 2016), positive transfer seems to have shaped the tone choice of the participants in this study.
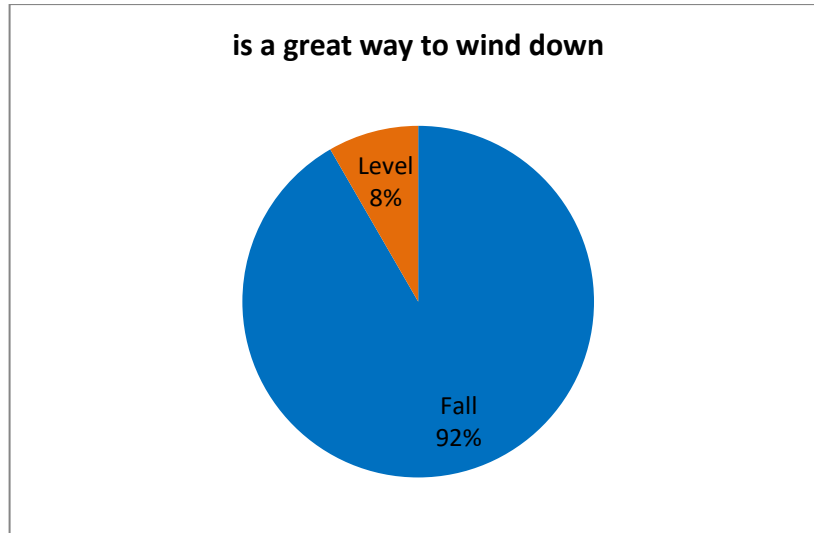

Figure 5. Intonation choices for Utterance 4, Tone unit 2.

If we examine the tone choices made by the participants in the whole utterance (Figure 6), only three participants produced a contextually appropriate combination of tones. Consequently, the data suggest that the participants seem to find the contrast between new and shared information difficult to produce.
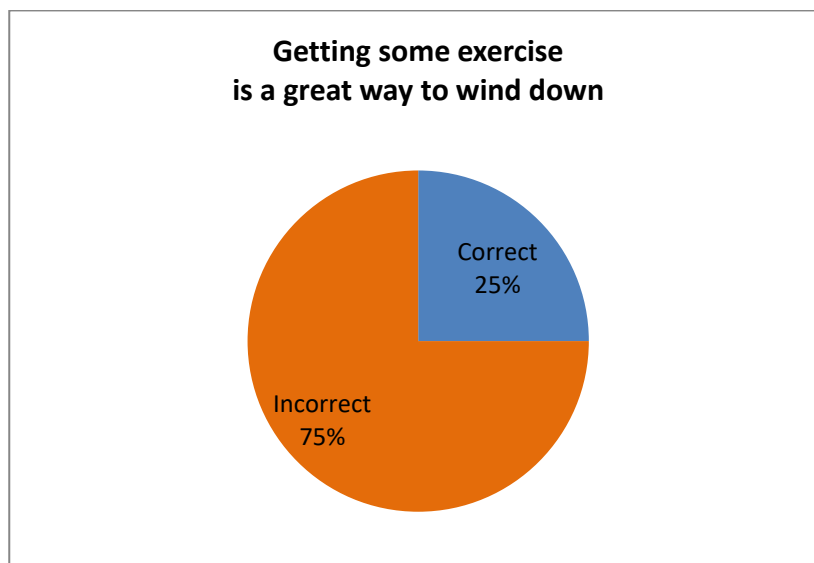

Figure 6. Accuracy when producing Utterance 4.

Utterance 5:

    (5) it wasn't a bronze medal, but a silver one

This utterance, which was segmented into two tone units by the 12 participants that produced it, is the one that displayed the greatest number of options in the corpus.

As regards Tone unit 1, nine out of 12 participants in this study (75%) made contextually correct choices in the selection of the tones. Eight of them used referring tones (seven used a fall-rise and one, a rise), either on "bronze" or on "me-", in the word "medal", to signal information that had already been mentioned[6]. Only one participant used a falling tone on the syllable "was-", in the word "wasn't", which is also considered appropriate since the speaker is presenting a contrast to what has just been said and, as such, that is presented as new information. All these constitute correct choices in terms of information status.

The other three samples of the same utterance in the corpus (25%) showed several differences in relation to tone selection and choice of tonic syllables. Two participants used a falling intonation either on the word "bronze" or the syllable "me-", inappropriately signaling these pieces of information as new. Finally, there was one student who used a level tone on the syllable "me-"", which is not considered appropriate in this context since, as Pickering (1999) says, when the level tone is used, "the communicative values inherent in the system are temporarily suspended" (p. 35). In these three last samples, the tone selection did not fit the context provided and the speakers selected intonation patterns that did not convey contextually meaningful differences in information status (see Figure 7).

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[6] Although Wells (2006) says that "contrastive focus overrides other factors" (p. 132), such as information status, we believe options other than making "bronze" the tonic are also acceptable.
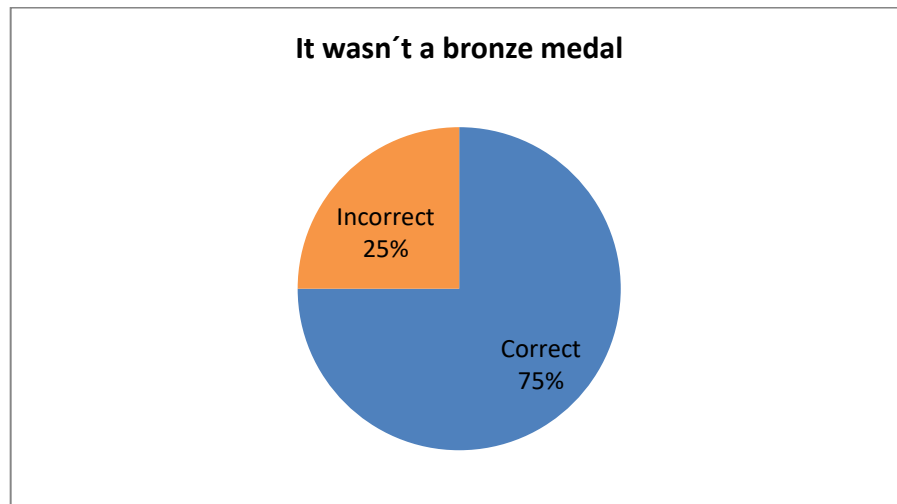
Figure 7. Accuracy when producing Tone unit 1 in Utterance 5.

Let us analyze the case of tone unit 2, which introduces new information that is connected with what has just been said. A falling contour seems to be the most appropriate choice in this context. All the participants used a falling tone on "sil-", in the word "silver". Again, positive transfer seems to have taken place as new information is signaled by this particular tone in English (Brazil et al., 1980), and this is the tone used in declarative statements in both English and Spanish (Cruttenden, 2008; Quilis, 2000; RAE, 2011; Whitley, 1986).

If we examine the tone choices made by the participants in the whole utterance (see Figure 8), nine participants produced contextually appropriate combinations of tones.
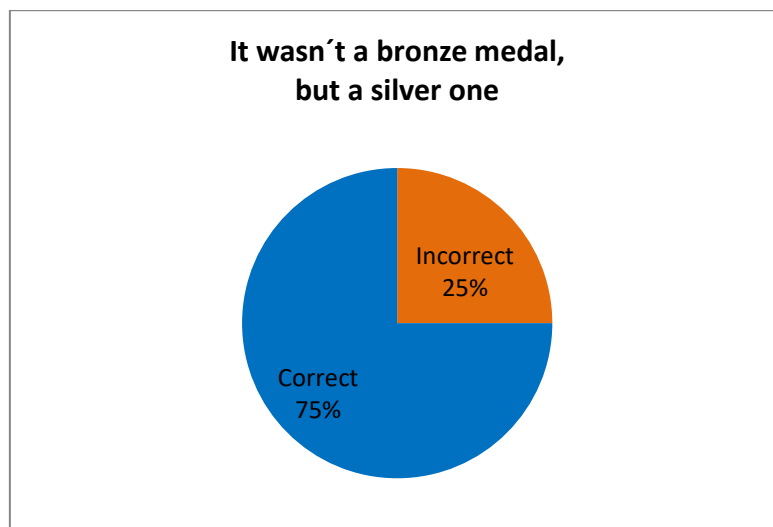

Figure 8. Accuracy when producing Utterance 5.

Brazil et al. (1980) state that the major pitch movements or tones in the English language are the falling-rising and the falling ones, since those tones were the most frequently used in the data they analyzed. By quantifying the total number of tones used in the corpus, the results confirm that both the falling and falling-rising tone had more occurrences in relation to the other tone choices, being the former the most frequently used tone by the non-native speakers of this study, and the latter being the second most frequent choice in the corpus. We can see these results in Figure 9.
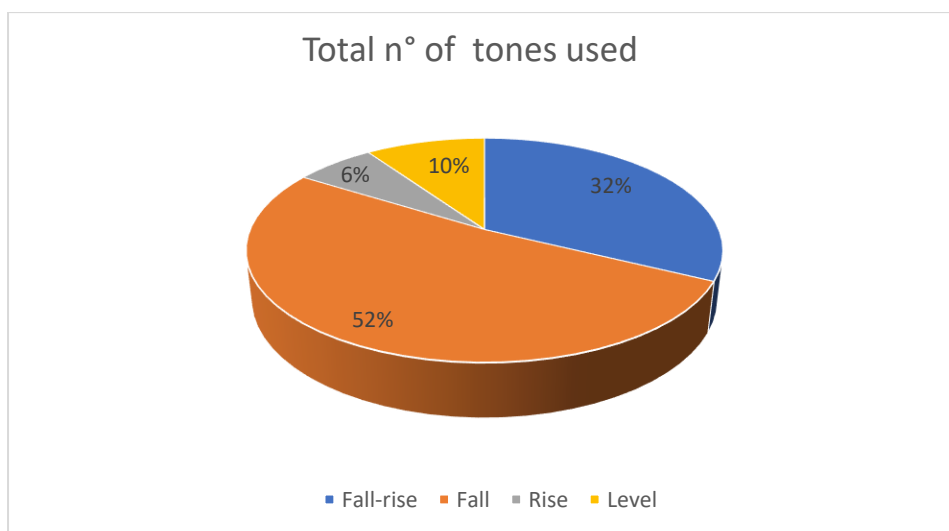

Figure 9. Tones and their frequency of occurrence in the corpus.

Although the students' performance shows they could produce all the tones in the English phonological system they had been exposed to[7] and that, in many cases, the students produced situationally and intonationally appropriate choices, we believe there is still room for improvement, since the participants in this study sometimes selected intonation patterns that did not convey contextually meaningful differences in information status. This is why, in the first place, instruction should aim at repeated exposure to and systematic practice of utterances in which shared and new information is combined in presented syntactically and or semantically in different contexts. Besides, due to L1 interference, we believe most participants displayed problems producing tone units with long enclitic elements. As the

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[7] Due to its low frequency of occurrence, the rise-fall is not very much practiced in Phonetics and Phonology I.

findings in this study confirm those in Ramirez Verdugo (2002), instruction and exposure should also focus on those utterances in which the tonic syllable is not on the last item in the tone unit.

Conclusions and Implications

To sum up, the outcomes of this research have been useful to answer the research questions previously proposed. The results of this study may have given us hints in relation to the IL intonation systems of Spanish speakers learning English at university level. These results suggest that, although the participants seem to have incorporated the different intonation contours in English, they still display some problems mainly when signaling shared information; differences between the tones used to signal shared information in English and Spanish may have caused interference. Besides, the participants in this study, Spanish speaking students learning English as a FL, still present difficulties establishing the contrast between shared and new information. This is in line with Ramirez Verdugo's (2002) results. She found that the participants in her study, also Spanish-speaking students learning English as a FL, systematically avoided the use of a falling-rising tone to express given information, and used the falling tone, instead.

Further research is needed to gain more insights into the IL intonation systems of Spanish-speaking university students learning English as a FL, especially if we consider that the study was based on student's performance in a semi-guided communicative activity. It has been demonstrated that the nature of the speaking task affects the outcome that L2 learners produce (Levis & Barriuso, 2012, as cited in Derwing & Munro, 2015). Hence results may vary if we analyze students' oral performance as regards tone choice in more spontaneous communicative speech.

Besides, we must bear in mind that the number of participants in this study was limited. Thus, there is need for a larger study that can provide results that are more representative of the student's population at the School of Languages, Universidad Nacional de Córdoba. Despite that, this study has furthered our understanding of our students' IL intonation systems. As stated before, further research may be needed to enhance our comprehension of the tone choices made by our students, and in this way, eventually direct instruction in a more effective

way. This means developing new pedagogical tools focused on the needs and difficulties of these particular learners that can aid the teaching and learning of English intonation at the School of Languages, Universidad Nacional de Córdoba.

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Appendix:

Get in pairs. Read the following dialogue between two classmates at university. Practice reading it aloud and made the tone choices that you think are appropriate according to this context:

Sally: Harry, how are you?

Harry: Fine…I think…

Sally: Fine? You don't look like fine, to tell you the truth. What's wrong?

Harry: I don't know what to do about my secondary subject this term.

Sally: So you still haven't chosen anything? Surely not!

Harry: I haven't. What are you going to take?

Sally: As you know, I love History. So that's my choice.

Harry: Actually, if there's something I don't like, it's is precisely history. Knowing all those

facts and dates…. It's a lot of information.

Sally: Well, for me it's very interesting. I've always loved to know about the past to

understand the present better.

Harry: Sorry, I don't want to be rude, but that sounds a bit cliché…

Sally: Really? May be, but at least I have a choice….

Harry: You're right. I'm completely lost. If I don't make up my mind soon, I'll miss my

chance and fall behind….

Sally: Cheer up! There should be something you like. What about Sociology?

Harry: Sociology? I don't know. I'm not into that either.

Sally: What do you usually like doing in your free time?

Harry: Well, that's easy. I love going for a run or for a swim. For me, getting some exercise is a great way to wind down.

Sally: I see… so you're interested in sports.

Harry: Well, yes. In fact, now that you mention it, I really like sports. I've been really entertained with the Olympic Games lately. England is doing great, much better than in London 2012. We've won gold medals in golf, cycling, tennis, boxing and judo.

Sally: Oh, yes! And now we won a bronze medal in judo, didn't we?

Harry: It wasn't a bronze medal, but a silver one. We've won 18 Olympic medals in Judo since this discipline was added in 1964. Neil Adams has been the most successful judoka winning medals in 1980 and 1884.

Sally: Wow! You know a lot about the history of Great Britain at the Olympics… you see? History is everywhere.

Harry: You're right… do you think there are still places on the History course?

Sally: I don't know. But I guess if you want to enter, you'd better hurry up.

Harry: Mmm… I hope I don't regret this….