INFLUENCE OF SPANISH STRESS AND INTONATION ON ENGLISH QUESTIONS

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Academic year 2019 - 2020

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A thesis submitted for the degree of Master of Arts in Linguistics

Linguistics: Language Processing and Cognition

December 2020

Universiteit Leiden

Acknowledgements

I am incredibly grateful to my supervisor Dr. P. González González for not giving up on me, especially during the COVID-19 pandemic lockdown. The guidance and input you have provided have been crucial to the final outcome of this MA thesis.

I also want to express my gratitude to the one and only Joel Steendam. I would not have been able to finish this project had it not been for your unconditional support and encouragements. Thank you for pulling me through and putting up with me for these long eleven months.

Last but not least, I would like to thank my family and my friends. Thank you for believing I could get to the finish line when I did not think I could.

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Abstract

The teaching of pronunciation is slowly receiving more attention in TESL, yet the teaching of the suprasegmental features of language (stress and intonation) it still scarce. Due to its important role in communication, this project description paper presents an analysis of the effects Castilian Spanish stress and intonation have on English Questions when uttered by Castilian Spanish speakers. Additionally, it suggests Age, Age of Onset of Acquisition and Proficiency to be possible factors influencing successful pronunciation. This proposal is a replica of Valenzuela Farías' study (2013): *"A comparative Analysis of Intonation between Spanish and English speakers in Tag Questions, Wh-Questions, Inverted Questions, and Repetition Questions"*. Due to the COVID-19 pandemic lockdown, this study does not have empirical results. The results shown are predictions drawn from existing research applied to the focus of this research. Hypotheses indicate a possible connection between learner's first and second language (language transfer), in addition to Age, Age of Onset of Acquisition and Proficiency as factors influencing the successfulness of the acquisition of English pronunciation.

Key words: L1 transfer – Intonation – Stress – Adult Second Language Learners – Age of Onset of Acquisition - Proficiency

1. Introduction

Every language has its own characteristics which separates it from others. Even languages which are part of the same language family have distinct features making them unique. These features are either learnt or acquired. Typically, a first language is acquired and a second language is learnt (Krashen, 1981). When learning a language other than the native one (a non-primary language) several factors affect this learning process. One of them is the influence the mother tongue can exert on the second language. It is of importance to be aware of the varying

features languages have and which of those can be transferred from one language to the other. Language transfer in the field of grammar or vocabulary, for example, has been widely researched and is given a significant amount of attention in the Second Language Learning Classroom (SLA classroom). The suprasegmental features of language, however, such as stress and intonation, do not receive nearly as much attention as the aforementioned features of language. Neglecting these features brings one main problem as a consequence: learners of a second language are not aware of stress and intonation in either the mother tongue and/or the target language. Learners might subconsciously transfer these features from one language to the other. With this, they run the risk of being misunderstood and being put in a tricky situation where communication is inhibited. Because of the problem of learners running this risk, the importance of investigating it is warranted. This study focuses on delving into the problem by taking two specific languages: Spanish as a mother tongue and English as a second (non-primary) language. The target participants are adult Spanish learners of English. Consequently, the purpose of this study is twofold. Firstly, it aims to provide an explanation of the effects Castilian Spanish stress and intonation have on English questions produced by a speaker of English as a Second Language (ESL). Secondly, this study aims to explain the effect proficiency and age of onset of acquisition of the target language can have on the stress and intonation of English questions. This is with the ultimate aim of enlightening ESL (English as a Second Language) teachers in how to help their adult Spanish students improve their English-speaking-skills. Henceforth the questions aimed to be answered are:

1) How do the intonation and stress patterns of Spanish interfere in Spanish adult ESL learners when formulating questions in English?
2) To what extent does the correct usage of L2 stress and intonation in English depend on one's level of proficiency and/or the age of onset of acquisition?

In order to give answers to these research questions, this thesis, in the form of a project description paper, is structured in the following order: firstly, a theoretical framework covers different applied linguistic domains with state-of-the-art research and findings[1]. This review of previous research shows the reason and justification for carrying out the current research. The theoretical framework will explain two sets of concepts. On the one hand, second language acquisition notions such as first language (L1) transfer, Age of Onset of Acquisition (AoA), Adult Language Learners (aL2) and Proficiency are explained. On the other hand, Stress and Intonation are defined together with explanations of how these two concepts are applied in each language (English and Spanish). Furthermore, the (dis)similarities between languages are presented. Secondly, based on the theoretical framework and the recent state of the art studies, this paper describes a methodological proposal for a study that could provide answers to the research questions. This proposal is a combination of a replica of the comparative analysis of the patterns of intonation by Valenzuela Farías (2013) adapted to Castilian Spanish and an analysis of stress inspired by the work of Prieto and Roseano (2018). Lastly, hypothetical outcomes of the proposal are described hand-in-hand with its limitations and implications in the ESL classroom. The methodology is explained in such a manner that it feasible and attainable, warranting insight into the field of Second Language Acquisition.

2. Theoretical Framework

2.1. Second Language Learning Notions

To grasp understanding of the acquisition process Spanish ESL learners go through when learning English in relation to the influence of their mother tongue on the target language, a

[1] This thesis is not an empirical one but rather a bibliographical study. The answers to the research questions are based on previous research. The choice of method was due to the COVID-19 pandemic, which eliminated the option of collecting data.

number of notions need to be addressed: First Language Interference (L1), Age of Onset of Acquisition (AoA), Adult Second Language Learning (aL2) and Proficiency.

A) First Language Transfer

Language learning has been researched extensively and today it offers a vast database of literature (Slabakova, 2013, p. 53). Language learning can be divided into different categories such as first, second or third language learning. Furthermore, it can also be categorised according to the learner profile: monolingual, bilingual (simultaneous or sequential), multilingual and so forth. Previously, language learning theories explored this process and nowadays the journey of Language Learning Theory offers explanations throughout different researchers' hypotheses. From 1945 onwards, researchers hypothesised and explored the essence and main features of first language learning. For example, Chomsky (1959) and Selinker (1972) aimed to find the source of language and how a first language is learnt. These researchers set a foundation of what is now understood of language and the process of language learning. Chomsky (1959) proposed the possible existence of a Universal Grammar. Later on, different researchers shifted their focus on the external and internal factors affecting the process of language learning. Among others, Gardner & Lambert (1972) and Dörnyei (2005), extended the scope of the process of language learning to various factors. An example of a factor is motivation. Motivation can either aid or prevent language learning. Other factors include the errors learners make (Dulay & Burt, 1973), the access to different types of knowledge, whether implicit or explicit (Bialystok, 1978), the importance of input (type and amount) (Long, 1980; Krashen, 1981), the communicative competence in language learning (Swain, 1985), the influence of cognitive psychology in language learning (McLaughlin, 1987) and learners' individual differences (Skehan, 1989). It goes without saying that the process of first language learning has been analysed in depth from different perspectives offering a variety of results. These L1 studies, even though potentially considered out-dated, still set a foundation which

serves as a starting point towards the understanding of how languages are learnt. In the field of language learning, as more valuable insight was added to first language acquisition, second language learning grew as an area of interest. Some theories of first language learning were taken as a starting point of SLA, to see whether these could be applied.

In the field of Second Language Acquisition, research is also very extensive (Montrul, 2010) and many of the aforementioned theories have been applied into the field of SLA, such as Dörnyei's motivation theory (2005) and Skehan's theory about individual differences (1989). Selinker (1972) defended an Interlanguage Theory, which connected the first and the second language to each other on a language learning spectrum. In relation to the connection between an L1 and an L2, a specific theory which explains Second Language Acquisition is called the (L1) First Language Interference theory (Ellis, 1997). What this theory refers to is to the extent to which the learner's first language influences the acquisition of the second/target language (Ellis, 1997, p. 51). It means that when a learner is actively learning a second language, he/she is bound to transfer knowledge from the mother tongue (L1), which amongst other outcomes can lead to the learner making errors (Ellis, 1997, p.51). The effects of L1 interference can be observed and interpreted both as positive and negative transfer towards the second language (Ellis, 1997, p.52), and it can take place at all levels of language, including phonology (Benson, 2002, p. 69). It can have a positive effect when the L1 of the learner helps L2 acquisition (Ellis, 1997, p.52) either because both languages are similar to each other or because having the mental structure of one language helps to structure a second one (Benson, 2002, p. 68). It can also have a negative effect such as avoiding the usage of certain structures or overusing other forms (Ellis, 1997, p. 52) causing the delay of the stages of development (Benson, 2002, p. 68-69). The effects of the L1 affects a variety of levels within the language such as phonology, morphology, syntax, semantics, lexicon (Montrul, 2010, p. 293). As Mitchell et al. (2013, p.123) mention, it is bound to happen that L2 learners transfer sets of L1 routines to their L2, unless another

process less-effort-consuming can be applied to the situation. What this means is that a learner can easily transfer knowledge from his/her first language and this transfer will not require much effort, yet there can be other processes such as overgeneralisation of rules in the second language that require even less effort investment, and consequently the learner will choose to utilize that process. Until the learner consolidates methods of processing and strategies for learning the second language, L1 transfer can affect the learner causing side effects in the second language (Mitchell et al, 2013, p. 123).

The idea behind transfer is that the L2 learner uses whatever he/she already knows in the newest setting where one finds him/herself, meaning that they do not have to start from scratch as they already have a starting point from where to withdraw information (Littlewood, 1984, p. 25). One reason why the learner could choose to transfer is to solve an urgent communication problem despite the awareness of the lack of accuracy (Littlewood, 1984, p.31). The learner might know that what he/she is about to utter is grammatically incorrect, yet because there is a lack of knowledge that is grammatically accurate and there is a communicative need, the learner will choose to use incorrect speech with the ultimate goal of achieving communication. If in the process there is indeed transfer of the mother tongue, then it would be possible to trace the errors back to the L1. There is no consensus of opinion among researchers as not all theorists agree with the notion uniquely tracing errors back to L1 transfer. Hence, researchers that did not want to place all blame/focus on the mother tongue, such as Gass and Selinker (1984) for example, focused on shifting the attention away from the L1 and results supported this argument. Their study analysed the errors by Spanish learners of L2 English, and it revealed that less than five per cent of the errors could be traced back to L1 transfer (Ellis, 1997, p. 52). Yet studies such as these have been overtaken by research which does demonstrate the interference of the L1. Studies such as the one by Gass and Selinker (1984) acknowledged the presence of the transfer, that learners gather information from their L1 create their interlanguage

(Selinker, 1972), as they work with the information available to them. Ellis (1997) calls this 'input from the inside', therefore it is not a negative interference, but a 'cognitive process' (p.52). More recent researchers such as Truscott and Sharwood Smith (2004), Dörnyei (2005), and Lantolf and Thorne (2006) extended the L1 transfer to the importance of motivation in the second language, development of competence in languages being integral parts of processing mechanisms, and the importance of integrating the sociocultural theory in relation to the development of the L2.

When uttering errors, the repetition of these create the risk of them becoming fossilized, meaning that these errors won't cease and become "permanent features of the learner's speech" (Littlewood, 1984, p. 34). The negative transfer that occurs in phonology is often referred to as the 'foreign accent' (Benson, 2002), which is the "pronunciation which bears traces of the phonology of the first language" (Mitchell et al, 2013, p.16). These are pronunciation errors which are part of the learner's speech, that the learner most likely has developed during adolescent and adulthood (Littlewood, 1984, p. 34). This concept can be a bothersome one for certain learners, because unlike learners who achieve close to native-like levels of pronunciation, others, independently of the amount of languages classes they attend, years they learn and how actively they use their second language, their errors are traceable to their L1 and become fossilized (Mitchell et al, 2013). One of the negative consequences of these traceable errors is that learners are at risk of being misunderstood which would consequently lead to miscommunication (Valenzuela Farias, 2013). For example, this miscommunication can lead to disadvantageous positions for non-native English speakers in the business world (Melitz, 2018). As English today is considered a Lingua Franca and the international language for business and marketing, all speakers, native or non-native need to be flexible and adapt to English (Zerzová, 2015, p. 52). But due to their 'foreign accent', it occasionally leads to non-

native speakers not joining discussions in meetings (Zerzová, 2015, p. 63), which is frustrating to Spanish speakers of English and has negative consequences for them.

The norm of the need to achieve standard native-like pronunciation level of English to English as a Lingua Franca is slowly shifting to allowing certain 'foreign accents' to be more acceptable (Mitchell et al, 2013). This is a grey area in terms of who decides which accents are more or less acceptable. However, what has become clear is that every person, regardless of their nationality, will carry an accent. Additionally, the ultimate goal is successful communication instead of usage of exclusively accurate language. More importance is given to communication than 'standard native-like pronunciation'. Therefore, the foreign accent needs to be clear and understandable to achieve the listener's understanding of the message. Hence when learning a language, not only the accuracy of the vocabulary and grammar should be studied, but also the suprasegmental features of language which aids understanding. Subsequently, the focus of teaching pronunciation should become a priority in which teachers give learners the opportunity to notice errors that lead to miscommunication and teach the suprasegmental features of language. These features will help them convey clearer messages and understand the language better. It is necessary to provide clear explanation of the differences in stress and intonation between Castilian Spanish and English. This paper focuses on explaining those differences.

In summary, L1 transfer is very common and unavoidable in Second Language Learning. It is bound to happen and, as discussed, it can be a beneficial process for the learner. This can be, for example by helping the him/her connect structures known already in the L1 to the new language (L2). However, within the process of SLA, learners need to be made aware of the fact that language transfer does happen to help them in the process of noticing it and through that process guiding them to pronunciation that avoids misunderstanding. It is for this reason that

the current research focuses on providing an explanation of the effect Castilian Spanish stress and intonation have on English as a starting point for ESL teachers to start building tools for their learners to use.

B) Age of Onset of Acquisition

Various studies carried out in relation to the factors that influence and/or hinder the achievement of native-like level of the L2 lead to differing conclusions. Amongst others, there is a well-known hypothesis that was firstly applied to first language learning but that has been extended to second language learning as well: The Critical Period Hypothesis. As Cook (2001) explains, this hypothesis claims "that human beings are only capable of learning language between the age of two years and the early teens" (p. 132). In other words, there is a limited timeframe for humans in which language acquisition is easier (or possible) and can therefore be completed (i.e. reaching the native-speaker level). Beyond that critical period, it becomes difficult to master a language completely (Ellis, 1997, p. 67). After the age of sixteen, it is said that the possibility for achieving complete proficiency of a language declines (Ellis, 1997). In relation to this, researchers have debated which of the two factors, the age of onset of acquisition (AoA) or the amount of exposure to the language, is more important for achieving native-like levels. Researchers such as Schmid (2012) support the hypothesis in favour of the age of onset of acquisition. According to Slabakova (2013), AoA is the valid predictor of "ultimate attainment in the L2" (p. 50). Furthermore, learning the prosodic aspects of the language varies in its outcome depending many factors such as the AoA (Schmid, 2012), but also other factors that are both external and internal of the learner (Ellis, 1997).

In the case of pronunciation, it is said that the crucial critical period is earlier, as early as the age of six (Ellis, 1997, p. 67). Other researchers emphasize the importance of the amount and length of exposure to the language, which will make a difference in whether the speaker

will reach native-like levels or not (Unsworth, 2016). In her studies, Schmid (2012) concludes that age of onset of acquisition is more important for the learning and retaining the second language than the amount of exposure. Whether age or exposure are more important for second language learning, these factors both have a direct effect on the second language and it interferes with how the person discriminates sounds and sound categories in addition to how the person produces speech in the second language (Pallier, 1997).

What makes this Critical Period Hypothesis relevant to the current study is to see how this hypothesis surfaces with L2 learners of English with Castilian Spanish as their L1. If the Critical Period Hypothesis were to be applied to second language learning, then only early or sequential bilinguals could achieve the ultimate proficiency level in two languages. Thus, the Critical Hypothesis issue postulates two perspectives. The first position argues that first and second language acquisition are different in the core, which involves qualitative and quantitative differences between them (Slabakova, 2013, p. 54). The second position believes that the learning of the first and second language are not fundamentally different, although there are some major differences in which factors such as proficiency and quality and quantity of the input play a crucial role, more than previously might have been assumed (Slabakova, 2013, pp. 54). However, other researchers say that since L2 learners already have a consolidated first language, and do not have a critical period in second language learning the process is utterly different from first language learning (Slabakova, 2013, p. 50). Whether or not second language learners have a critical period which limits their learning, one of the factors that has become clear previously is that the age of onset of acquisition bares great importance. Since the focus of this research are adult second language learners, the next section covers the implications of learning a second language at the life phase of adulthood.

C) Adult Second Language Learners

When learning a new language at a significant later stage in life than the first language, such as the case of adult second language learners (aL2), not only will the speed of learning be different, but also the final outcome (Sanz, 2005, p.4). The process of second language learning will likely infer with the first language, which has already sculpted the brain's auditory system to detect and differentiate sound categories in that specific language (Cook, 2001). What this means, in relation to the aim of this research, is that the learner creates links to the meaning of stress and intonation usage of the L2 known to the brain (the L1). There are several reasons justifying the decline in language learning in adults such as physical and social factors. The 'loss of plasticity in the brain' and the 'lateralisation of the brain' are examples of physical factors affected by age (Cook, 2001, p.133). Social factors also play a role in this decline. Such factors include the context in which learning takes place as it will be different for child language learning and adult language learning, and the mode of thinking, as adults will be more prone to abstract thinking that children or teenagers (Cook, 2001, p.134). Some researchers postulate it as a fact that it is impossible for adults to reach native-like levels of grammar in their L2 (Slabakova, 2013, pp. 50). This is backed up by evidence that support the inability of native-level achievement by adult L2 learners in the aspect of grammar or pronunciation (Ellis, 1997, p.67). Other researchers, such as Sanz (2005), adhering to the fact that the acquisition of the second language happens when the development of the adult's cognition is complete, she stresses the importance of the adult having to take the extra mile and make use of all cognitive resources available in order to trespass the limitations obvious to him/her, both external and internally (Sanz, 2005, p.4).

On the positive side, just as Sanz (2005) explained, adult learners will achieve native-like levels if they make a greater effort to achieve levels that perhaps children would achieve subconsciously. According to Lardiere's Feature Re-Assembly Hypothesis (2009), the most

challenging L2 learning task is to change the setting of the features in the way they are stored and represented in the L1 into the coding of the L2 (Slabakova, 2013, pp. 59), and once this re-setting is achieved the adult can successively learn the L2. Much literature has been able to show that despite the age of onset later in life, age can be a positive advantage, in pronunciation in particular (Cook, 2001, p.134). Despite the common belief being that an authentic accent cannot be achieved in adulthood (even though the mere term of *authentic accent* is vague by itself), the evidence in previous studies is inconclusive (Cook, 2001, p.134). It seems to be the speed at which adults and children learn that is different. According to Cook (2001), children start slowly, whereas adults start the learning process more quickly, yet hit a slowdown towards the end when children finish at a higher level (p. 153). Evidence shows (Ellis, 1997) that not all learners are bound to critical periods as "some are able to achieve native-speaker ability from an adult start" (p.67). It becomes clear that adults face different and perhaps more difficult challenges than child second language learners, yet some evidence shows that not all adult learners should be constricted to the critical period hypothesis, giving aL2's the hope of achieving close to native-speaker level. This gives aL2 the hope of being able to make communication possible without misunderstandings. This realisation that adult language learners struggle with L1 interference and other factors which may delay the learning process makes the implications of teaching even the more relevant and important. A question this study aims to answer is whether there is a connection between the proficiency of pronunciation and the age of onset of acquisition.

D) Proficiency

Perhaps it has been the case for the reader to have encountered a Castilian Spanish speaker whose level of English is near-native-like (proficient so to say) in terms of grammar and vocabulary. It could be the case that this person is very well spoken, all uttered sentences being grammatically correct and when speaking, the speaker uses a wide range of rich vocabulary,

yet to the listener it is immediately clear that the speaker is not a native English speaker. The listener can easily trace the 'accent' back to the speaker's language variety: Castilian Spanish. It is confusing then for the listener to hear a strong accent (perhaps even preventing communication) yet identifying the content of the message as rich in lexicon and correct grammar. A speaker of a non-primary language can call him/herself proficient in the target language, and still not have mastered the proper pronunciation or suprasegmental features of the mentioned language. Therefore, one of the questions that this study aims to answer is whether the correct usage of the L2 stress and intonation depends on level of proficiency of the speaker. In other words, is correct usage of stress and intonation a matter of language proficiency?

In previous sections of this paper it has been discussed that regardless of the general and external factors of second language learning, there are factors that apply to the learner individually, which are referred to as the individual differences (see section 2.1.A), and there is an ongoing discussion about the possibility of adult learners reaching full proficiency in the target language (see section 2.1.C). For example, Spolsky's general model of second language learning (1989) includes a section about personal characteristics such as age, personality, capabilities and previous knowledge. These can affect what Sanz (2005) calls "the level of ultimate attainment" (p.3). At this stage it is also important to point out what proficiency in the L2 actually means.

Proficiency is the command of the knowledge of language, and what is meant by language knowledge is not only a "lexicon with information about properties of words" but also the "computational system that allows words to be combined to produce and interpret language" (Sanz, 2005, p. 6). Harley et al. (1990) explain that there are several concepts that entail being proficient in a language (p. 7). According to them, most of the attention and importance about

proficiency was given to grammar up until the onset of their study. What this meant is that all that was taught in language classrooms had a major focus on grammar and lexis. However, in the following years the teaching of language broadened its view and started focusing more on communicative skills, such as the correct language usage in various contexts (Harley et al., 1990, p.7). This caused the creation of a "communicative competence framework" that was developed by Canale and Swain (1980) in which a distinction was made among three competences: grammatical, sociolinguistic and strategic (Harley et al., 1990, p. 9). When testing second language learners on the basis of these three competences, one was able to get a fuller and more complete view of his/her proficiency in the target language. Additionally, when comparing these results to a native speaker, it was concluded that results could be drawn in order to get insight about where the development of the proficiency of the language is different (Harley et al., 1990, p.10.) In conclusion, language proficiency must not be seen outside of interactive contexts: each competence should not by analysed independently (Harley et al., 1990, p.25).

Now then, since the proficiency of a learner can depend on several factors, and learners can have stronger and weaker skills, is the ability for learners to speak using correct stress and intonation fully a matter of general proficiency or does it also depend on learner's language aptitude? What can cause the successful achievement of correct speech? Is it a matter of nature, an innate program of learner aptitudes, or nurture, a matter of input/external factors? (Sanz, 2005, p.7) Years of research have proven the importance of input. Input can be of several types such as comprehensible, implicit or explicit input and other classifications. These act as external factors on the learner. Another example of an external factor is the person's learning context. This factor weighs heavily on the speed of learning a language and can have varying results according the each context. For instance, the difference between learning a second language in a foreign language classroom or learning a language in full immersion of both the language and

culture, can result in different outcomes (Sanz, 2005). For adults though, the language learning process differs from children and studies have showed that in order for adults to process language in order to acquire it, other means besides explicit input should be provided (Sanz, 2005, p.14).

A relevant example of skills being unbalanced is shown in a study carried out by Swain and Lapkin (1982), in which the participants showed differing results between receptive and productive skills. The receptive skills were nativelike but their productive skills, even though advanced and despite the high amount and years of exposure and input, were not nearly as close (Sanz, 2005, p.13). The example could explain limits of the proficiency levels one can reach in different skills. Another explanation to this dichotomy is learners' differences. Carroll's language model (1981) for example, shows suggestions of why some skills could be stronger in some learners and not in others. This model shows the following subcomponents: phonetic coding ability, grammatical sensitivity, rote learning ability for foreign language materials and lastly, inductive learning ability (Carroll, 1981). The one component relevant to discuss here is the Phonetic Coding Ability, which is the "ability to identify distinct sounds, to form associations between those sounds and symbols representing them, and to retain these associations" (Carroll, 1981, p.105). In other words, it could be that a learner with a high level of proficiency in English in all skills is not strong in the phonetic coding ability. It is possible then to have a learner with a low proficiency level and yet use stress and intonation patterns correctly in English because his/her ability for phonetic encoding and suprasegmental encoding is high. In the same manner, a highly proficient learner could fail to use the suprasegmental features correctly due to his phonetic coding ability. This is one of the questions the current research will investigate.

2.2.Stress & Intonation

Stress and intonation are suprasegmental features of language and these are studied in the linguistics field of phonology (Ladefoged & Johnson, 2014). As the name indicates, these features go beyond the segment and they exert effects on it: they are applicable to entire syllables. Their effect on the syllable and sentences as a whole can change the entire meaning of the message to be delivered (Ashby, 2011). Before delving into language-specific stress and intonation of English and Spanish, it is of importance to clarify the terminology.

A) Stress

Stress, as Ladefoged and Johnson (2014) define it, is "the use of extra respiratory energy during a syllable" (p. 319). As it is a suprasegmental feature of language it affects entire syllables. What this means is that a stressed syllable will carry more acoustic weight and strength than an unstressed syllable, and will be "more prominent in the flow of speech." (Ladefoged & Johnson, 2014, p. 259). Stress has three main characteristics, which are intensity, duration and frequency (Ashby, 2011). In addition, stress can be categorized according to different types such as word stress vs. sentence level stress, primary vs. secondary stress. Moreover, stress is structural and syntagmatic (Hyman, 2006, p. 231), and any language which uses stress accent as a suprasegmental feature, needs to meet Obligatoriness and Culminativity (Hyman, 2006) as two central criteria. What is meant with *Obligatoriness* is that in a lexical word, at least one syllable has to carry stress (primary stress), and that syllable will carry "the highest degree of metrical prominence" (Hyman, 2006, p. 231). The rest of the syllables will carry less stress or be completely unstressed. The second criteria a language with stress needs to meet is *Culminativity*. In an utterance, at most one syllable will carry the main primary stress and the other stressed syllables will also carry energetical strength and prominence, but will be less prominent. Because they are less prominent they will never carry higher stress than secondary stress (Hyman, 2006). English and Spanish both meet the criteria. For example, the

word *"ba - ˈna - na"* in English carries the primary stress in penultimate syllable and the secondary stress in the antepenultimate, just as the word *"ˈplá – ta- no"* (banana) in Spanish carries the primary stress in the antepenultimate syllable and secondary stress in the penultimate. In order to meet the Culminativity and Obligatoriness criteria, these words can be placed in a sentence, carrying the primary stress. This can be seen in examples 1 and 2: example 1 places the word "banana" in the English sentence with primary stress and example 2 shows the same sentence in Spanish with the word "plátano" (banana) carrying the primary stress in the antepenultimate syllable. As the examples show, the diacritic [ˈ] is used to indicate the stress. This diacritic is placed at the left (onset position) of the stressed syllable, which means that the indicated syllable carries the primary stress.

1) Who took the baˈnana?
2) ¿Quién cogió el ˈplátano?

In both languages, these sentences show stress in different parts of the clauses, yet the most important stress in them, the primary stress, is on the stressed syllable of the word *banana.* The rest of the stressed syllables are also prominent, but less because they carry secondary or no stress. Thus, syllables can be stressed (and carry tonic or non-tonic stress) or be unstressed (with an (un)reduced vowel). The uses of stress can be manifold, but the use that is most applicable and relatable to this research is how it helps both the speaker and listener to organize the message to be delivered. Stress helps the speaker organize "phonetic material for his/her own purposes" (Hyman, 2006, p. 246). Consequently, it helps the listener understand the message. Despite individual differences in the production of speech sounds, which make speech personal and consequently less easy to objectively analyse, it is apparent that many languages follow the same stress rules as "speakers of many different languages have similar inflections when conveying similar emotional information" (Ladefoged & Johnson, 2014, p.264). Hence, some

languages are a mixture of "phonemic and predictable stress" (Gordon & Roettger, 2017, p. 7) and the personal input of the speaker, which is the case of Spanish and English, the two languages in question. A sentence could be uttered in the exact same word order yet with different stress placement and mean completely different things. For example, stress can indicate the importance of a specific word in a sentence. The question in example 3 shows a sentence where stress can be placed on different words. If the stress is on *John* the emphasis is put on the person, i.e. it was not Mary who ate the apple but *John*; if the stress is on *eat* then the emphasis is on the verb, the action, not on the person executing the action: John *eating* the apple, as opposed to, for example, picking it. Lastly, if the stress is on *apple* the emphasis is on John eating an apple, not a pear.

3) Did John eat the apple?

Both languages have a stress system which includes giving emphasis on one syllable specifically. This syllable carries the tonic accent. The syllable with the tonic accent is called the tonic syllable and is longer, louder and more prominent than the rest of the stressed syllables (Carr, 2013, p. 108). Stress can be applied to word and sentence levels. In both languages, stress can be found at the word level, but for the purpose of this study, in relation with stress and intonation in the phrasing of question, the focus is on sentence stress.

B) Intonation

The next suprasegmental feature to define is intonation, which is the "combination of pattern and pitch changes in a sentence" (Ladefoged & Johnson, 2014, p. 126). What is meant with pitch is the auditory property which is created by the "variations in the rate of the vibration of the vocal folds" (Carr, 2013, p. 107). The syllable which carries most stress (primary stress) is referred to as a tonic syllable (Carr, 2013, p. 107), which is found in an *intonation phrase* (IP). This phrase is "a stretch of discourse" (Carr, 2013, p. 108), a syntactic unit, a pitch pattern and

most importantly it is where the tonic syllable is found. It also acts as "a unit of information" (Ladefoged & Johnson, 2014, p. 128). Within the intonational phrase there is a single syllable that is especially "prominent because it accompanies the final peak in the intonation, called the tonic accent" (Ladefoged & Johnson, 2014, p. 122). In English, for example, in a neutral intonation pattern the tonic accent tends to occur on the last stressed syllable (Ladefoged & Johnson, 2014, p. 127), such as in the question in example 3 (*Did John eat the apple?* See section 2.2.A, p. 20). Conversely, to emphasize specific words (or groups of words) according to a specific message desired to be conveyed, the intonation pattern will change. Thus, intonation is often used as a strategic tool to reflect the speaker's attitude (Ashby, 2011). For instance, the intonation in the question in example 3, can reflect surprise, doubt, certainty and even astonishment. In order to analyse where the tonic accent is placed and how the sentences either build up or down towards it and after it, it is possible to look at intonation contours, which are the outlines of the intonation patterns. For example, in English, a typical intonation contour for yes/no questions is the rising contour, which entails a pitch change with the peak on the last word (Ladefoged & Johnson, 2014, p. 129), such as in the example question in example 4 (page 22). This can simultaneously said to be a pitch accent because these are defined as "intonational movements that associate with stressed syllables, rendering them intonationally prominent or accented" (Prieto & Roseano, 2018, p. 213), and enabling the listener to categorize the sound as high or low. However, not all questions have the same rising intonation as shown in example 4 (p.22). This is the case, for example, with wh-questions in English.

4) Could you do me a favour?

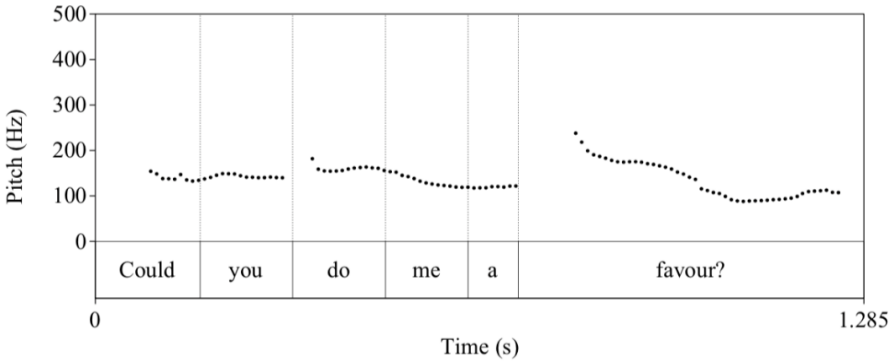

Figure 1: Intonation contour English yes/no question[2]

Wh-questions (as will be explained in the following section) typically end with a falling intonation, which means that after the pitch peak of the stressed syllable it decreases progressively until the end of the utterance (Ladefoged & Johnson, 2014, p. 130). See figure 2 for an example:

5) When will he arrive?

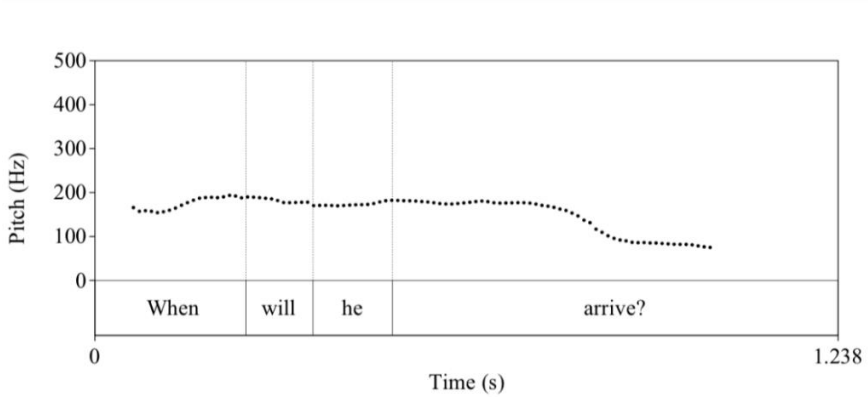

Figure 2: Intonation Contour English Wh-Questions

[2] All figures of English and Spanish sentences are Intonation Patterns drawn via the visual technology "Praat". Two native speakers of British English and Castilian Spanish volunteered to audio record the interrogative sentences, which were imported into "Praat" and transferred the characteristics and contours into figures.

These two suprasegmental features of language are key features that a language learner needs to master in order to make himself/herself understood. Since stress and intonation can be used strategically to convey a message despite the utterance lacking proficiency in other aspects of language (such as grammar or vocabulary), this project description paper is focused on studying and designing a methodology which could lead to explaining the (dis)similarities between Castilian Spanish and English. This is done to help ESL teachers of adult Castilian Spanish ESL learners in order for them to aid them improve their English production skills. The following sections will explain more specific scenarios according to each language.

2.3. English Stress and Intonation

Even though the explanations provided above are applicable to stress and intonation in English, further language-specific clarifications are needed.

A) English Stress

English is a stress-timed language because it uses stress to indicate the timing of speech, and utilizes word stress to change the meaning of utterances (Ashby, 2011). In other words, the meaning of utterances will depend on where the stress is placed. In English, sentences will always have stressed and unstressed syllables. Stressed syllables are more prominent because they carry the tonic accent, which is normally found in the final peak in the intonation (Ladefoged & Johnson, 2014, p. 122). What this means is that in English the tonic accent is placed in the last peak position of the intonational phrase, just as the first syllable of *food* in the question in example 6.

6) Did you buy all this ˈfood?

In contrast to other languages the placement of stress in English is more flexible in word order and is often used to create contrasts (Ladefoged & Johnson, 2014, p. 270). Moreover, stress in English has a number of functions, mainly the two following:

a) A grammatical one to indicate the syntactic category.
b) An emphatic one to create contrasts or for changing the meaning of a sentence.

The first function is used to clarify what category certain words have within the sentence because depending on the pronunciation the meaning of the sentence will change completely. For example, the word *object* in questions 7 and 8 has different meanings. In example seven, the stress is on the first syllable (onset syllable of the word), which places the word in the noun category, the passive agent in the sentence, whereas in example eight the stress is in the second syllable, categorizing the word as a verb, the carrier of the action.

7) Could you pass me that ˈobject?
8) Did he obˈject?

The second function is one with clarification purposes. It clarifies where the emphasis is in the sentence, whether it is on the action carrier, on the receiver or on the action itself (for further explanation, see example 3 on page 20). A native listener will subconsciously detect the stressed syllables to decode the message within, and will be able to determine whether the stress is used with the first or second function, however, some second language learners will not be able to naturally detect this stress (Carr, 2013) and be unable to decipher the message. This is most applicable to learners in a beginner's level, however, learners at higher levels of proficiency might still struggle with the interpretation of these acoustic cues. This, as explained in section 2.1.D might have to do with the learner's phonetic coding ability.

B) English Intonation

Moving on to English intonation, the definition provided and the examples given above in relation to intonation are applicable in this section. More specifically, however, it is possible to find up to four pitches in English: low, mid, high and extra high intensity. These four pitches will indicate the stress of the utterance together with the direction of the intonation, whether it is a rising or falling intonation contour (Valenzuela Farías, 2013, p. 1064). Furthermore, in English, intonation has three main characteristics:

a) The clear division of speech into intonational phrases (IPs).
b) The division of these IPs according to the information they entail and the placement of tonic accent in each IP.
c) The tone used in each IP (rising or falling tone) (Carr, 2013, p. 123).

Not only can English intonation be characterised by these three points but it also becomes clear that meaning in English is not only expressed through syntax but meaning is often also conveyed around the context such as through the personal intonation of the speaker. This personal intonation is added for the listener to understand the speaker's attitude and intentions (Carr, 2013; Ashby, 2011; Valenzuela Farías, 2013). What is more, what makes the intonation in English so unique and challenging for ESL learners is the flexibility with which they move the tonic accent away from the Last Lexical Item (LL1) according to the purpose of the utterance (Carr, 2013, p. 123), as what has been explained previously in the section of English stress. This is an innate feature for native speakers of English but can become troublesome for speakers of English as a second language. English has many varieties across the globe and these varieties can have minor/detailed differences in the intonation contours in questions. Because of this, for the purpose of this study the English taken into account is British.

C) English Questions

The sentence type under investigation in this study is the question, so four types of questions with their according stress and intonation in British English will be explained next. When

looking at yes/no questions in English, the tonic accent can be found after a low tone and followed by a rising tone in the tonic syllable, which in its totality creates a rising contour (Ladefoged & Johnson, 2014, p.129; Carr, 2013, p. 108). This can be seen in example nine. In this question, the peaks are found in *these* and *keys.* These are preceded by low tones, but overall create a rising contour which ends in a peak with the tonic syllable *keys.* The word *keys* gets the peak, then descends but is followed by a mild rise.

Yes/no questions contrast with wh- questions. The type of questions that the term *wh-question* refers to are ones starting with the five wh words (where, when, who, why, what). This type of question is the second type that will be analysed in this study. Wh-questions are produced with a falling intonation in British English (Ladefoged & Johnson, 2014, p.129). In the question in example ten (p. 27) it becomes clear even though there are several stressed syllables, there are two that carry the main stress: *where* /ˈwɛə/ and *keys /ˈki:s/.* In comparison to Figure 3 (p.26), in Figure 4 (p.27) one can see that there is no rising contour at the end. The difference in the graph might be minimal, but it does reveal the different contours.

9) Are these your keys?

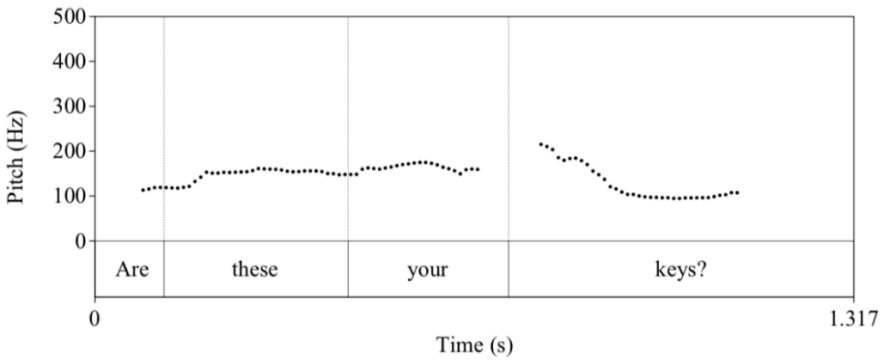

Figure 3: Intonation contour English Yes/No Question

10) Where are my keys?

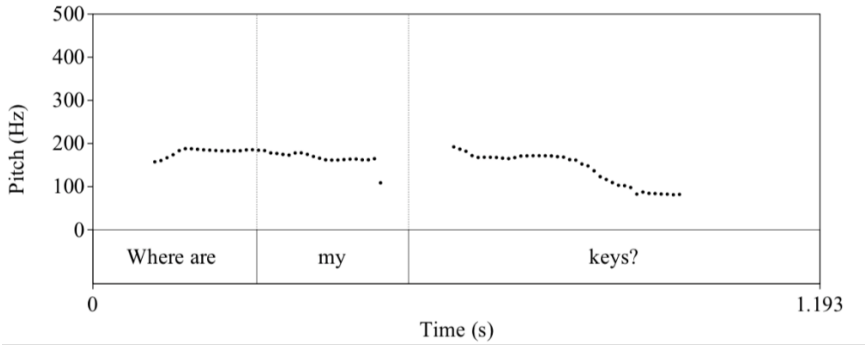

Figure 4: Intonation Contour English Wh-Question

In British English, the primary stress would be found in *where* and from there the contour would start falling, meaning that *where* /ˈwɛə/ is the longest syllable, the most prominent one and the loudest. From there, even though there are stressed syllables, they will be less prominent than the primary stress in *where.*

The third type of question is the question tag. The intonation of tag questions is a different and more complex case because it depends on the attachment it has to the main clause / intonation phrase. In other words, the intonation contour will depend on whether the tag question is included in the same intonation phrase (IP) as the main clause or whether it is taken as an independent IP. What determines its (in)dependence is the message the question entails. If the message desired to be delivered encourages agreement, then the tag question will be in a separate intonation phrase from the main clause. In this case it will then have a falling tone (Carr, 2013, p.119) as in the question in example eleven (p. 28). On the other hand, if the tag question is part of the main clause and IP, there will not be a division between IP in the main clause and tag question. It will then deliver the message of incredibility, doubt or surprise (Carr, 2013), expecting clarification from the listener. In this case it will have a rising intonation as can be seen in example twelve. Sentences 11 and 12 exemplify the difference between the two types of tag questions (p.28).

11) He is in trouble, isn't he?

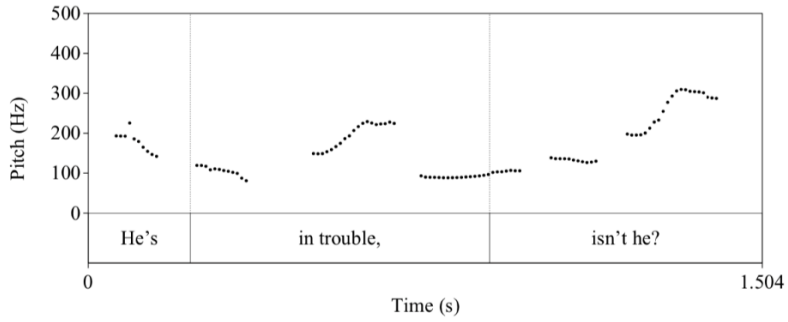

Figure 5A: Intonation contour English tag question 1

12) You are travelling with me, aren't you?

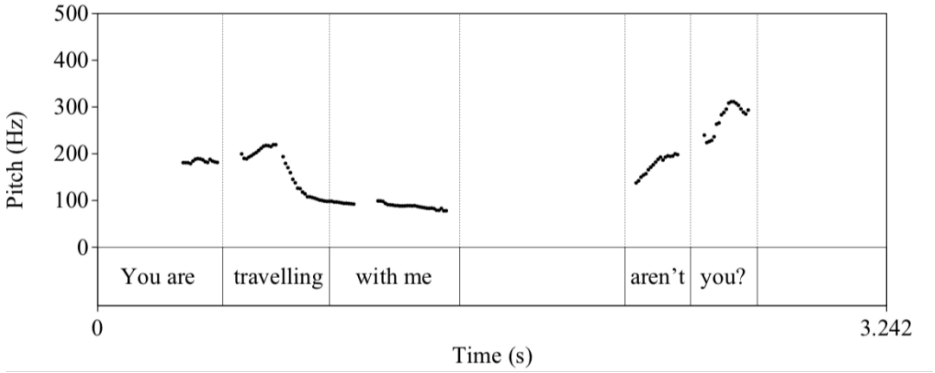

Figure 5B: Intonation Contour English Tag Question 2

Lastly, there are two remaining questions needed to be addressed. These are the inverted questions and echo questions. In English, inverted questions are the ones in which the order of the words is switched around to stress emphasis on specific aspects of the sentence. The stress and intonation of this type of sentence are similar to yes/no questions. Despite these being similar to the ones in yes/no questions, they are used with the purpose of emphasising expectation and/or impatience of the speaker (Valenzuela Farías, 2013). In order to make an inverted question, the syntactic structure of the original affirmative declarative sentence is kept but the intonation contour changes. The intonation contour changes to one appropriate to a

question by “placing a rising, rather than a falling, tone on the last lexical item” (Carr, 2013, p. 122), as in the following example (13). This contrast between the affirmative declarative sentence can clearly be seen in figures 6 and 7: “Peter failed the exam” and “Peter failed the exam?”):

13) Peter failed the exam / Peter failed the exam?

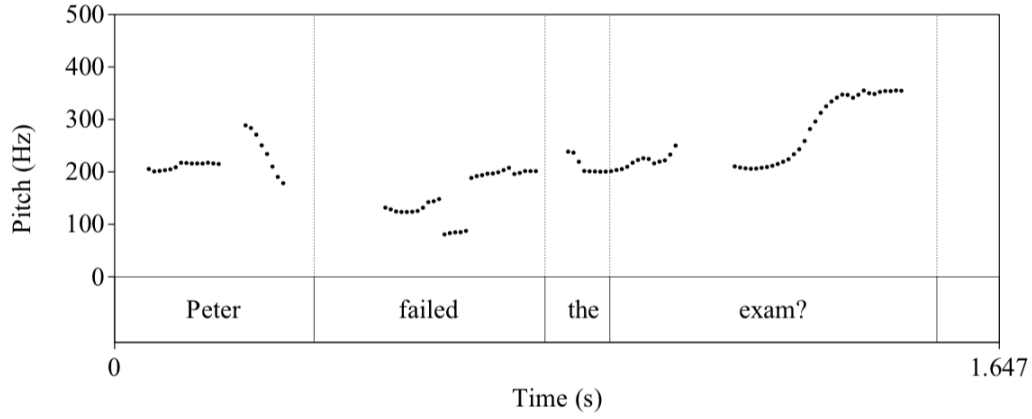

Figure 6: Intonation Contour English Inverted Question

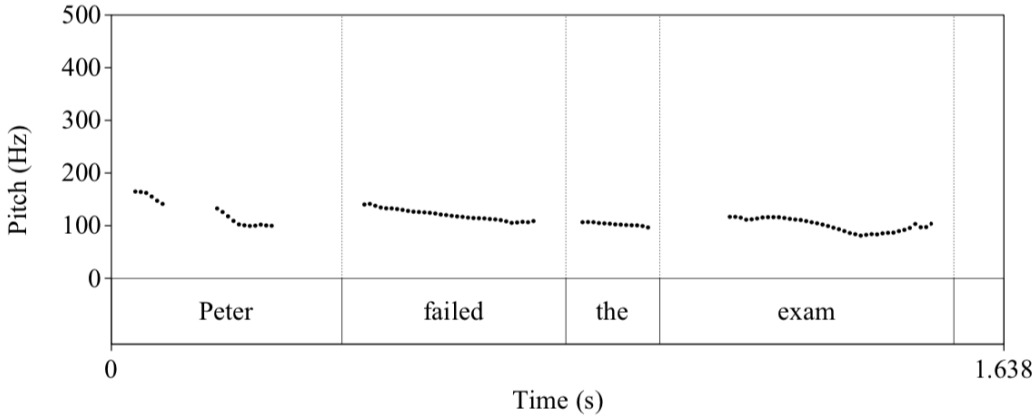

Figure 7: Intonation Contour Affirmative Declarative English sentence

Lastly, echo questions are used in English for the purpose of clarification either because the listener has not understood properly or because there is incredulity. The structure of the question consists of echoing “part or all of what the first speaker has just said” (Carr, 2013, p. 121). For

example, in the conversation in example fourteen, the intonation in the echo question rises in the IP, ending in a peak in the rising contour (Carr, 2013, p. 121).

14) A: You have to finish your homework.

B: I have to finish what?

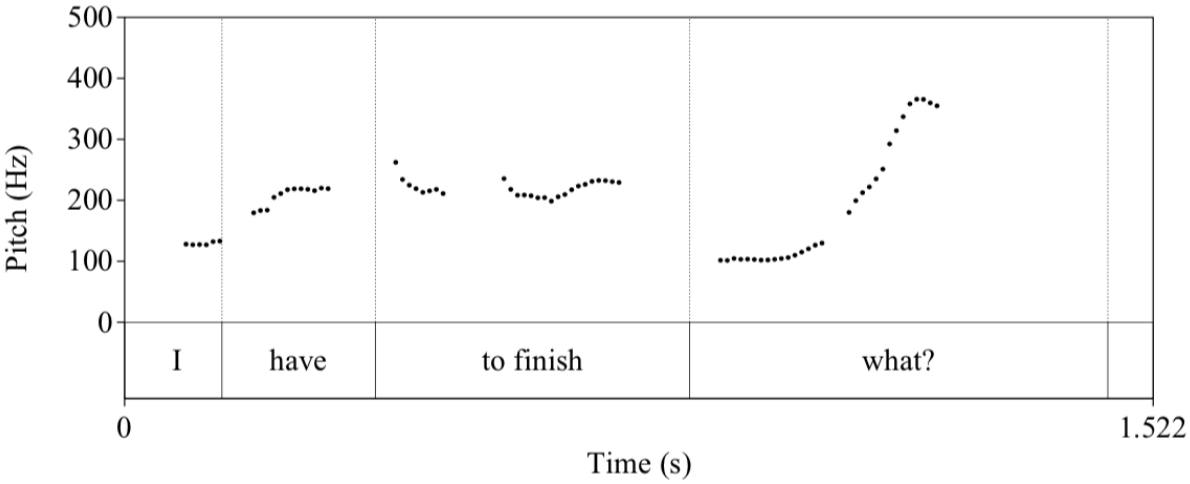

Figure 8: Intonation contour English Echo Question

As we will see next, Castilian Spanish stress and intonation are not the same as British English stress and intonation in questions. In order to present that, an explanation of the background of the following language will be given.

2.4.Spanish Stress and Intonation

Before delving into the stress and intonation of Spanish questions the chosen variety of Spanish will be presented. Spanish is one of the world languages (Escobar, 2010, p. 392). In fact, after Mandarin, it is the language with most native speakers spoken in four continents: in America (official language in eighteen countries), Europe, Africa (in countries such as Equatorial Guinea and Spanish North African cities) and in Asia as a minority language (Escobar, 2010, p. 392). In Europe it is in Spain where Spanish is the official language. Needless

to say then that there are many official varieties of Spanish spread across the globe. So, even though Spanish is the official language in many countries, there are several varieties/dialects which have different characteristics. Spanish spoken in Spain has a certain homogeneity but there are plenty of differences that make it easier the spot where in Spain a speaker is from. The two most important regional dialects in Spain are two called "centronorteño" (Castilian Spanish) and "andaluz", the former one being considered the most traditional and conservative (Escobar, 2010, p.397). For the purpose of this study, variety of Spanish that will be analysed is Castilian Spanish.

A) Spanish Stress

Spanish, together with other Romance languages, is a syllable-timed language. In such languages, each syllable has an equal duration in time and "occurs at more or less equal intervals" (Carr, 2013, p. 99). What this means is that in Spanish "all syllables take about the same length of time to pronounce" (Coe, 2011, p.95). Furthermore, the structure of most syllables in Spanish, is open. Open syllables are ones which end in a vowel. Generally, these syllables follow the consonant-vowel structure (for example *co-che,* car, and *bi-ci-cle-ta,* bicycle). Because of that, it is said that Spanish syllables entail less variety in comparison to stress-timed syllables in other languages (Law et at., 2018). Spanish as a syllable-timed language does not reduce vowels (Law et al. 2018, p. 934); which means that the duration of the vowel in the syllable remains equally the same. What is more, in Spanish not even function words (determiners / prepositions) are bound to undergo vowel reduction, as shown in the following example:

15) ¿Compró el hombre un coche para la mujer? *(Did the man buy a car for the woman?)*

These function words in the example 15 show that the determiners in Spanish do not undergo reduction. The vowels in these function words are pronounced differently in connected

speech, which will be explained in further detail. Additionally, in Spanish, the usage of syllable duration, pitch contour, loudness and quality (Law et at., 2018, p. 934) is not as vital for the perception of rhythm. This is because in Spanish there are two types of stress. Stress is divided into strong and weak stress (Valenzuela Farías, 2013, p. 1064), and the duration of syllables are mostly of the same length (Coe, 2011, p. 95). It makes the stress in Spanish predictable as such speakers do not make a great difference between stressed and unstressed syllables. They only extend the length of the utterance in order to create emphasis. Spanish focalization is mastered through other means (Prieto & Roseano, 2018, p. 212). For example, in the question in example 16 (just like sample 3 'Did John eat the apple?'), in order to emphasize the person John, this word will not only receive extra stress, but also longer duration in addition to emphasising it through word order change.

16) ¿Fue Juan quién se comió la manzana? (*Was it John who ate the apple?)*

It should be noted that the stress of the words in Spanish is directly connected to rules of syllabification (Hualde et al, 2010). Spanish has very clear rules about the formation of the syllables, which affect not only word stress but stress in connected speech. These rules dictate which consonants are allowed to be in the same syllable and which can be placed in onset/coda positions. It is of importance to explore these rules as they also have an effect on connected speech and the placement of stress in the connected speech of questions. One of these rules is the division of words into syllables. In Spanish there will never be a division between a consonant and a vowel (Hualde et at., 2010, p. 101), which means that a consonant will not be left astray in a coda position. For example, in a sequence of VCV, the consonant is always bound to the second vowel (V.CV), the vowel succeeding the consonant, such as the word *ca.la.ba.za (pumkin).* This is yet again a clear example of the preference of Spanish having open syllables. What is more, when a word contains a VCCV sequence, the first vowel will be placed

in a different syllable from the rest (V.CCV) such as the word *africano (African),* which is divided as follows: *a.fri.ca.no*, or *o.tro (other), si.glo (century), al.to (tall)* (Hualde et al., 2010, p. 101). But if it were the case that the group of consonants cannot be placed at syllable initial, such as in word initial position, then it would follow the VC.CV sequence: *Es.pa.ña* (Hualde et al., 2010, p. 101). What this sequence shows is that the /s/ and the /p/ are split up in two syllables, one being the coda of the first syllable and the second consonant taking the onset position in the second syllable.

As mentioned previously, some consonants cannot be placed in the coda position of a word. The ones that are allowed to be placed in onset positions are as follows: /pr-/, /tr-/, /kr-/, /fr-/, /br-/, /dr-/, /gr-/, /bl-/, /gl/ (e.g. *primero, transparente, Cristiano, francés, Bruselas, dramático, Grecia, blanco, glaciar)* (Hualde et al, 2010, p. 101). In the examples *alto* (tall) and *adjetivo* (adjective) a different division of syllables can be found because the sequences /-lt-/, /-dj-/, /-rg-/ are not sequences that are admissible in Spanish; therefore the division of syllables looks as follows: *al.to* and *ad.je.ti.vo* (Hualde et al., 2010, p.101).

The reason behind this explanation is, because in relation to this study, the stress in the sentence will be placed differently according to which vowels and consonants are together in a syllable. But, what has been shown so far is the way the stress is placed according to the rules of syllabification in an analysis of words separate from each other. When looking at the chain of words in speech and discourse, the relation between words can change the rhythm and stress of the sentence (Hualde et al., 2010, p. 102). In speech, when a word ends in a consonant and the following word starts with a vowel, the consonant and the vowel of different words merge into one syllable. Then, clauses which are different can still sound the same, such as the example given by Hualde et al. *las alas / la salas (the wings / salt it):* pronounced in connected speech equally as *la.sa.las*. (2010, p. 102), which is called re-syllabication. This does not happen when

the vowels are semivowels, because just like the words *theatre* and *poet* contain an hiatus, which in connected speech creates a distinction of syllables: *te.a.tro* and *po.e.ta (*Hualde et al., 2010, p.102). Only hiatuses will not be pronounced as such and therefore as one syllable in connected speech when the vowels do not contain a prosodic accent*: tu abuela [ua] (your grandmother).* This means that one of the vowels is at risk of losing its strength simply because it is followed by a stronger vowel in connected speech which it will get merged to. Lastly, when there are two identical vowels that belong to different syllables in separate words they can be merged into one in connected speech (Hualde et al., 2010, p. 98).

All these rules need to be kept in mind when talking about Spanish stress, because even though it is predictable and syllable-timed, the rules of syllabification affect connected speech. This means that independent words do not always sound the same than when placed in a sentence (in connected speech).

B) Spanish Intonation

In terms of intonation, Castilian Spanish has narrow variation in comparison to Latin American Spanish. To explain Spanish intonation, the following terms are explained: stress in relation to intonation, terminal junctures (pitch change in the intonation pattern to indicate pauses), and pitch levels. In section 2.4.A, it was said that Spanish stress has only two kinds: weak and strong, which affect the intonation patterns of the language (Bowen, 1956). Additionally, Spanish has three different final intonation contours: rising, falling and sustained (Valenzuela Farias, 2013, p. 1065). The rising accents are the dominant ones in Spanish where there is “no impact of phrase length on the height of the tonal boundary” (Frota, 2012, p. 263). Lastly, Spanish has three kinds of pitch levels, which are the following: low, mid and high (Valenzuela Farias, 2013, p. 1065). With these three pitches speakers of Spanish convey all emotions and feelings. Spanish has a bias towards setting the pitch at sentence final position in

a rising contour. Consequently, this rising contour is also applicable to yes/no questions. These types of questions end in the third and highest level of pitch. Example 17 shows the same sentence as in example 18 (p. 36) but in its rising contour:

17) ¿Compró el hombre un coche para la mujer? *(Did the man buy the woman a car?).*

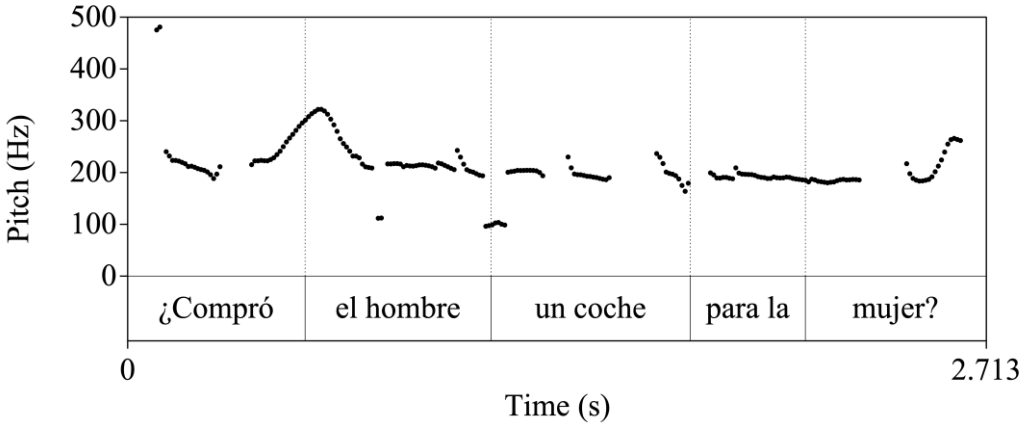

Figure 9: Intonation Contour Spanish Yes/No Question

In Spanish, the rise and fall of intonation patterns will happen at two main points of a sentence: either on the stressed syllables or at phrase final position (Hualde et al., 2010, p.111). For example, a simple declarative sentence in Spanish starts with a rising contour with its starting point on the tonic syllable and reaching its peak in the post-tonic syllable, meaning that not always the tonic syllable will be placed at the intonation peak (Hualde et al., 2010, p. 113). Words and intonation phrases found in sentence initial or middle sentence position in declarative sentences in Spanish are characterized by a very low start in the intonation contour followed by a steep rise (Hualde et al., 2010, p. 113). The last stressed word in a declarative sentence shows a different contour because the intonation rise peak will be found in the tonic syllable and a falling contour afterwards. The intonation contour at sentence final position will then be a falling one (Hualde et al., 2010, p. 113). This rule is not applicable to all declarative sentences because it will vary according to the speaker's intention behind the message.

Additionally, one of the principles of sentence word order is to place known information in sentence onset position. However, in order to create emphasis on certain new information, it often occurs that the speaker will place the new information at the beginning of the sentence (Hualde et al., 2010, p. 115). But when doing so, there are intonational consequences: to indicate that the information given first is the new one a wide rise and fall occur in the stressed syllable, to be followed by a constant fall in the rest of the sentence (Hualde et al., 2010, p. 117).

18) Juan compró el coche.

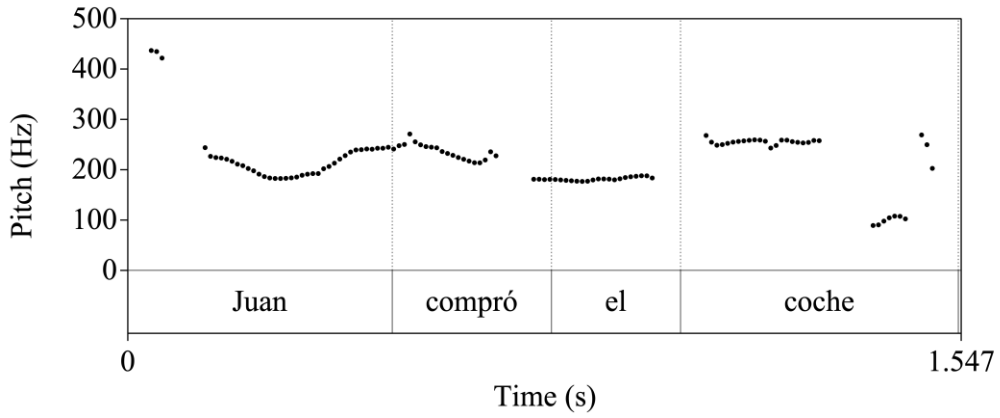

Figure 10: Intonation Contour Spanish Affirmative Sentence

Spanish intonation in questions vary from declarative sentences, so they will be explained in detail in the following section.

C) Spanish Questions

There are different types of questions in Spanish but there is one aspect that is common to all types: all questions have a higher pitch in their intonation, which separates them from declarative sentences (Hualde et al., 2010, p. 117). In Spanish, there are two main types of questions: yes/no questions (*interrogativas totales*) and wh-questions (*interrogativas*

parciales/pronominales). The former ones are characterized by a final rise in the intonation, consisting of the last stressed syllable carrying a low tone and a rise in the post-stressed syllables (Hualde et al., 2010, p.117). The latter ones are characterised for having a similar contour to declarative sentences. Wh-questions place the highest pitch on the wh-word (*quién, cómo, cuándo, por qué*…) and from there onwards the intonation contour is of a falling nature. If there were a rising intonation it would be added to show insistence or insecurity (Hualde et al, 2010, p. 118).

19) ¿Vas a ir a Madrid hoy?

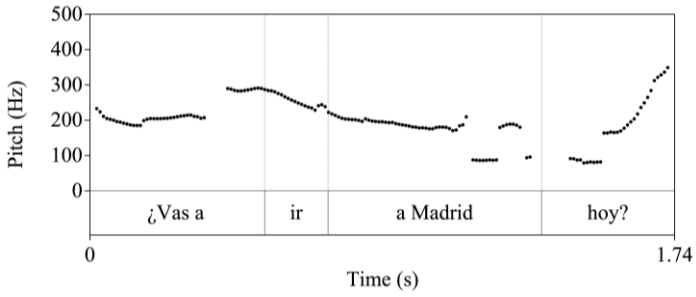

Figure 11: Intonation Contour Spanish Yes/No Question

20) ¿Por qué tuviste que hacer eso?

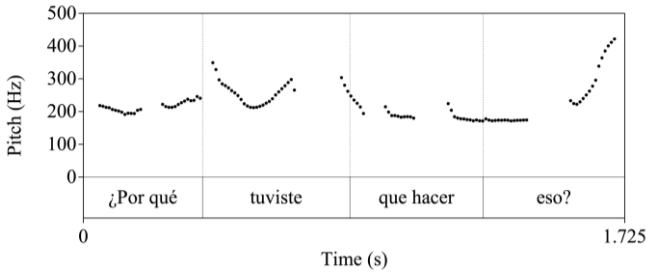

Figure 12: Intonation Contour Spanish Wh-Question

In sum, in Spanish there are two main types of questions and their intonation patterns have specific characteristics. Yet, in order to create emphasis in a question, Spanish speakers will be more prone to change the word order of the sentence or even add more words to emphasise

what they would like to stress (Valenzuela Farías, 2013, p. 1066), as the change of order of new versus old information, for example. This will have intonational consequences and Spanish speakers will use other focalisation means to convey the message.

2.5.(Dis)Similarities between the two languages

When reading the previous sections about the stress and intonation usage in both languages it becomes clear that English and Spanish share several similarities, yet there are some key differences which result in a difference of usage of acoustic cues. This difference could cause the risk of misusing or a lack of usage of the characteristic English cues that are utilized to convey and understand messages. It can then be that when a Spanish speaker utters English speech in the manners of Spanish stress and rhythm conventions, specific English clues are lacking, which is why native English listeners find it challenging to understand some Spanish ESL speakers (Coe, 2011, p.95). In English, for example, when new information is added in an utterance, (either declarative or a question) the focalized information is uttered "through strong pitch accentuation" (i.e. a peak in the intonation contour) whereas in Spanish uses other strategies such as extra length, change in word order and syntactic strategies (Prieto & Roseano, 2018, p. 212). Examples 21 and 22 (p. 39) show the same information in a question, yet the strategies used to focalize new information is different.

21) Why did you have to do '*that*?

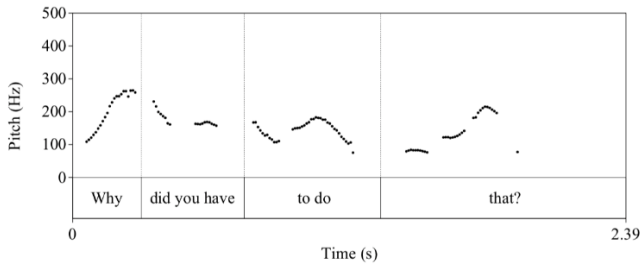

Figure 13: Intonation Contour English Wh-Question with emphasis on *that*

22) ¿Por qué tuviste que hacer *precisamente eso*?

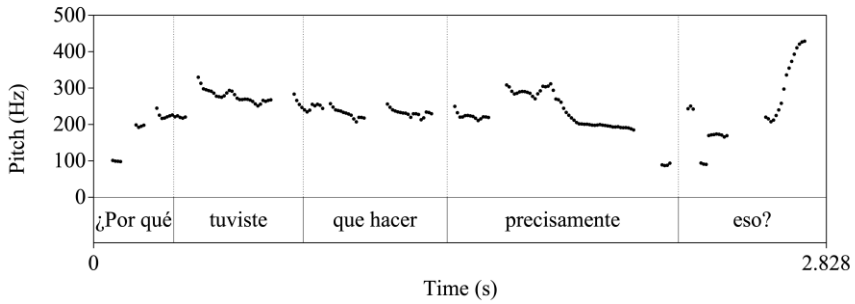

Figure 14: Intonation Contour Spanish Wh-Question - emphasis on "*precisamente eso"*

These two sentences show a difference in the pitch variation in both languages. Example 21 (p. 38) shows a rise in the intonation contour and an emphasis of stress in the word *that* whereas in Spanish (example 22) more words have been added to emphasize the new information, and used other strategies such as lengthening the utterance. This could make the Spanish speaker come across as "unenthusiastic or bored to English ears" (Coe, 201, p.96).

Furthermore, as stress in Spanish has a one-to-one correspondence between stressed syllables and pitch accents (syllable-timed languages) and English in a stress-timed language, English has many "more cases of stressed syllables with no associated pitch accent" (Prieto & Roseano, 2018, p. 215). Because of that, English content words will be more drawn to carry stress in contrast to function words, and depending on the function and message to be delivered, the stressed syllables are bound to pitch changes and are pronounced more prominently. In other words, English utterances are filled with acoustic clues about the structure and the meaning of the message (Coe, 2011). So just by listening to the intonation and the rhythm of the question, it is possible to decipher the intention behind the message. For example, when looking at examples 21 and 22, if in question 21 the stress and pitch rise happen drastically in the word *that*, it could clearly indicate surprise, doubt or even annoyance whereas in the intonation

pattern of question in example 22 it is not possible to read the acoustic cues in *precisamente eso* (exactly that).

The differences in acoustic cues between languages are clearly shown in questions, which is the type of sentence this study focuses on. Next, this section will show both the contrasting and common features of the two languages according to each question type. As a general rule, Spanish is a prominence-final language, which means that the rule for the placement of the stress, regardless of the intention behind the message, tends to be in a sentence-final position. English on the contrary, even if it also tends to be a prominence-final language it is much more flexible when placing the nuclear stress within the intonational phrase (Prieto & Roseano, 2018, p. 233). Because the execution of questions could be a challenge for Spanish speakers of English, the aim of this study is to focus on them, mainly four types. These are as follows: Wh-Questions, Tag Questions, Inverted Questions and Repetition Questions.

A) Wh-Questions

Wh-questions are used in both languages to seek for specific information, without extended pragmatic intentions. In both languages these questions tend to end in a low tone, but have different usage of pitch (Prieto & Roseano, 2018, p.230). Wh-questions normally have a falling tone, but not when used as an echo question (Carr, 2013, p. 121). Echo questions are explained in section D, but these type of questions are those which indicate repetition (also called repetition questions). These are repetitions of a previously mentioned statement and are used for clarification purposes. Examples 23, 24 and 25 show this difference (page 41). When used in a normal setting, wh-questions use pitch in a falling intonation contour whereas in the echo questions there is no falling contour. Additionally, in Spanish the intonation pattern will be different because not only will the contour change but also the word order will affect the question:

23) When are you leaving? / 24) ¿Cuándo te vas?

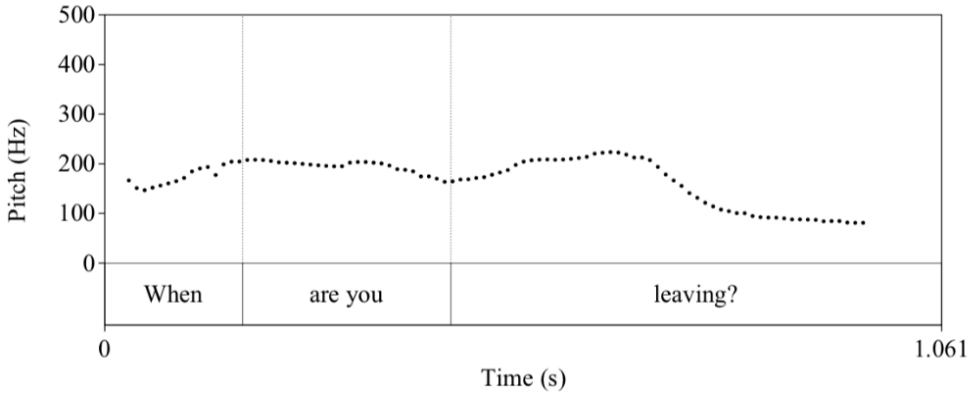

Figure 15: Intonation Contour English Wh-Question

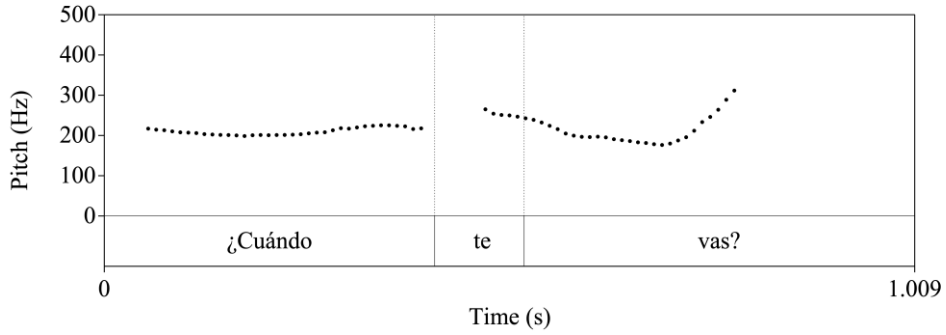

Figure 16: Intonation Contour Spanish Wh-Question

25)¿Te ibas cuándo? (*When were you leaving?)*

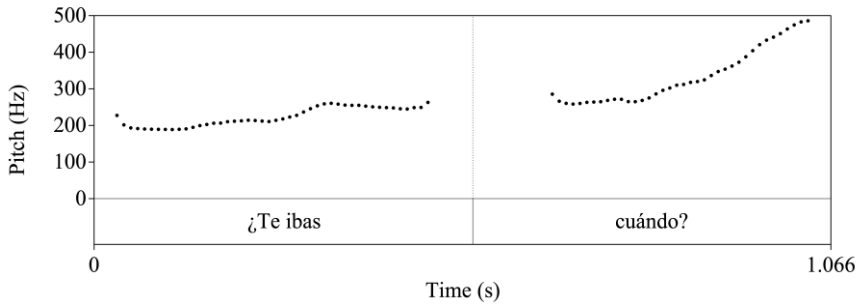

Figure 17: Intonation Contour Spanish Echo Question

B) Tag Questions

Tag questions are normally used as confirmation questions with an expected answer; which is why in both languages the tag question is added at the end of a sentence. In English, the phrasing of the tag question depends on the modal verb of the previous sentence, such as 'isn't it?'. In English, the tag question contains a modal verb, which will be grammatical agreement with the subject and verb of the main clause. The tag question will have verbal flexion according to person and tense. In example 26 '*isn't it',* the modal verb is in the present tense and in the third person singular. In Spanish, however, tag questions do not contain modal verbs in agreement with the verb in the main clause, as it tends to end in words such as '¿no?' '¿verdad?' or '¿cierto?' ("*or not", "true", "right?")* (Prieto & Roseano, 2018, p.226). The difference can be seen in example 26:

26) It is a lovely today, isn't it? / Hace un buen día, ¿verdad?

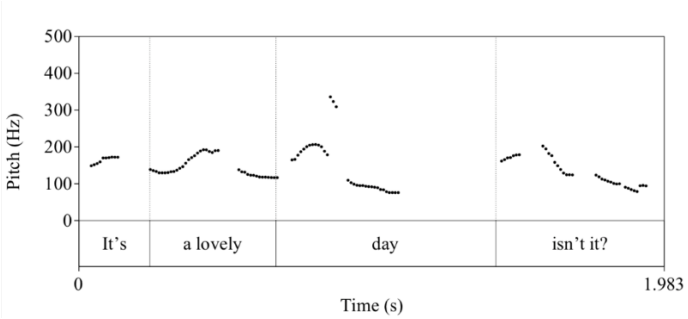

Figure 18: Intonation Contour English Tag Question

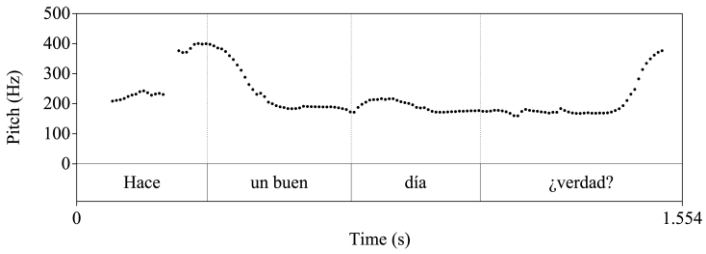

Figure 19: Intonation Contour Spanish Tag Question

As these examples show, the complexity of the tag question in English is higher than in Spanish. In Spanish by simply adding one of the tag words with the intonation of a question works as a tag question. In English the composition is more complex. This complexity is called reversed polarity (Carr, 2013). What this means is that the polarity is revealed in the tag question, as it will carry the modal verb the main sentence has (also its tense) but in its opposite form (is -> isn't, aren't -> are). Developing the complexity further, the intonation of the polarity question will differ depending on whether the tag question is included in the main intonation phrase or not. For more information on English tag questions, see section 2.3.C.

C) Inverted questions

Inverted questions are used to emphasise certain parts of the phrase (subject, verb or object) to show the expectation or impatience of the speaker (Valenzuela Farías, 2013). In English the structure stays the same as the declarative sentence but the intonation varies. It is achieved by ending the question with a high pitch and stress (see example 27, p. 44), yet Spanish acts differently. In Spanish, a tool used to create an inverted question is to change the word order and the syntactic structure. Example 27 shows the declarative sentence (Peter failed the exam) and the inverted question. What can be seen is that words are added in order to keep the order similar to the declarative question but making it a grammatically correct question.

27) Declarative Sentence: Peter failed the exam. / Inverted Question: Peter failed the exam?

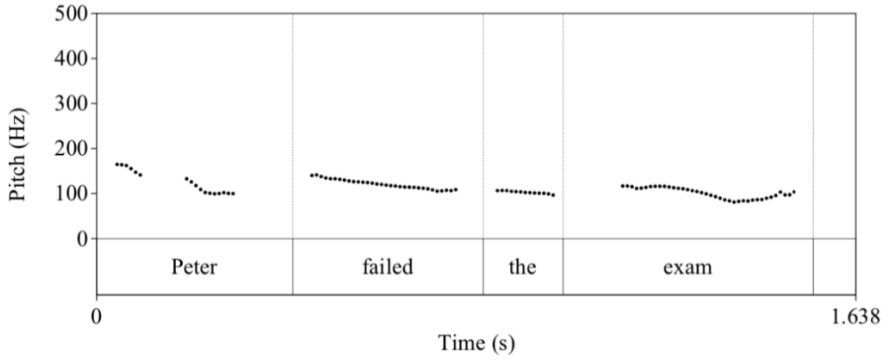

Figure 20: Intonation Contour English Declarative Sentence

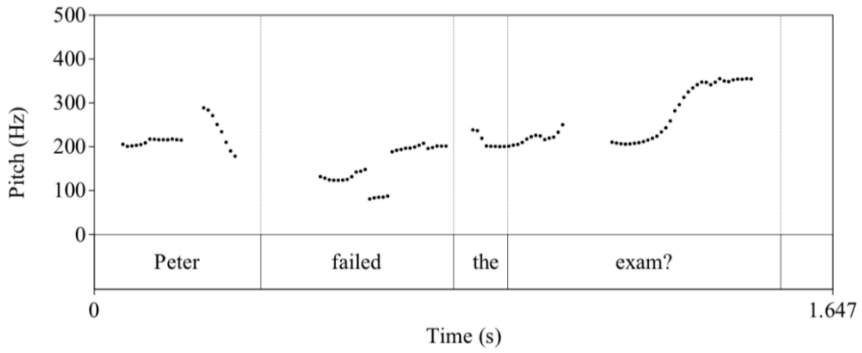

Figure 21: Intonation Contour English Inverted Question

28) ¿Que fue Pedro el que suspendió el examen?

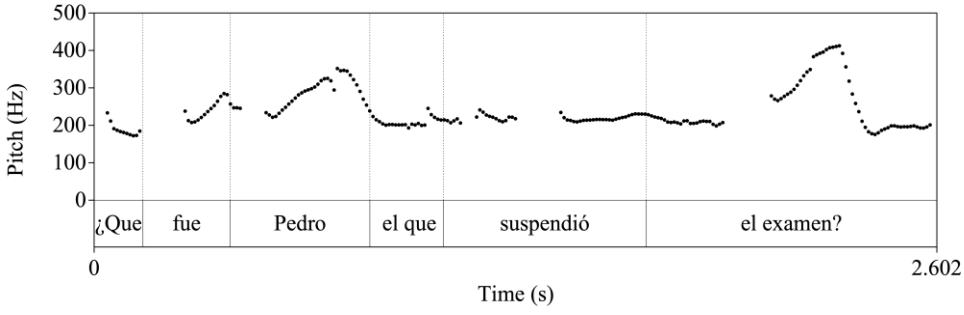

Figure 22: Intonation Contour Spanish Inverted Question

D) Repetition (echo) Questions

In Castilian Spanish it is common to find the extra-rise-fall tone in echo questions which has an “extra high-level rise in the last stressed syllable followed by a fall” (Prieto & Roseano, 2018, p.229). In English on the other hand, even though it also trails upward in the IP, there is no extra-high level before the fall (Carr, 2013, p. 121).

29) I have to finish what?

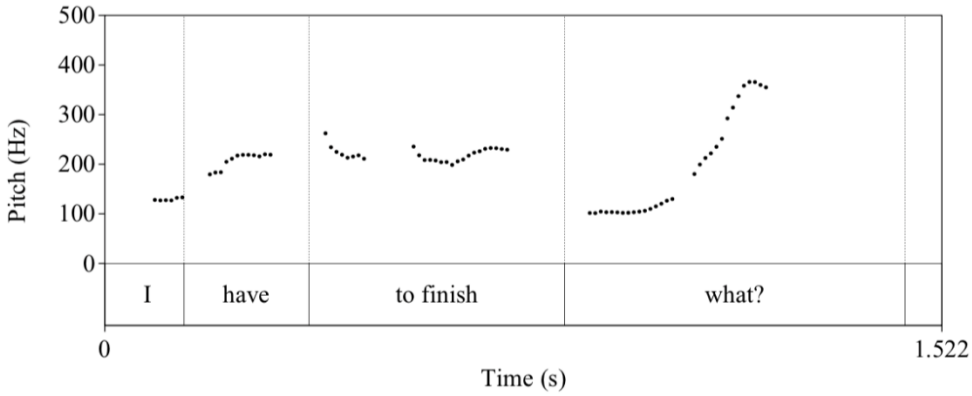

Figure 23: Intonation Contour English Echo Question

30) Tengo que terminar ¿el qué?

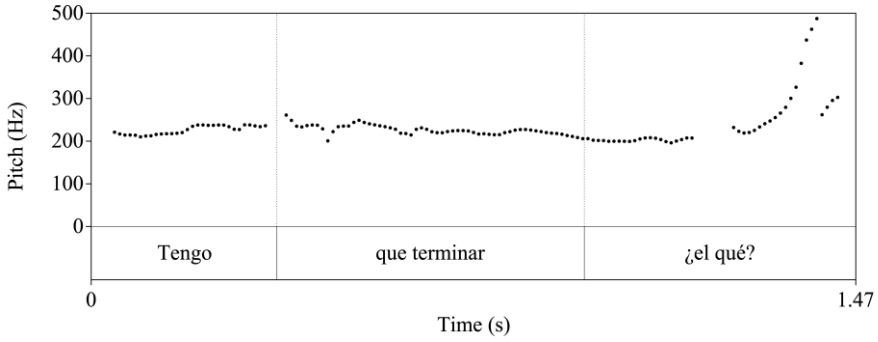

Figure 24: Intonation Contour Spanish Echo Question

Next, an overview of the difficulties speakers of Castilian Spanish face when speaking English will be given.

2.6.Challenges native speakers of Spanish face when speaking English

As explained before, Spanish and English are different type of languages. Spanish is a syllable-timed language and English is a stress-timed language. Because of that differences Spanish learners of English may find it difficult to interpret utterances in English. This is due to the flexible variable stress English has in contrast to the set stress in syllable-timed languages such as Spanish. The flexible variable English stress affects their recognition and production of English expressions (Coe, 2011). More specifically, the pitch span differs across languages, which is another factor which makes Spanish speakers of English speaking and hearing English (Coe, 2011). In terms of stress, there are three English tendencies which, according to Ashby (2011), can challenge the non-native speaker with a romance language background:

1. Not every stress that is found in the make-up of individual words gets used in longer utterances.
2. British English spaces the stresses out, having, where possible, a small number of unstressed syllables in between each of the stressed ones.
3. British English places the main stress of a phrase on the final stress position. (Ashby, 2011).

Despite English stress being clear in each word, in connected speech the stress can vary and vowels can get reduced which will make the utterance as a whole sound very different. These three points are challenging for non-native speakers of English, such as Spanish speakers of English due to several reasons. First of all, the learnt word stress will vary once it's placed in the context of the sentence. Secondly, they will encounter vowel reduction in unstressed words such as function words, which may be interpreted as unpronounced words and thus missing information, which will make the understanding of the utterance more difficult. Lastly, even though British English has a rule of placing the main stress in sentence-final position, this stress is flexible according to the purpose of the utterance (Prieto & Roseano, 2018, p. 233).

Furthermore, in terms of intonation, as mentioned before (see English Intonation in section 2.3.B) different researchers agree that Spanish has three pitches, whilst English has four. Both share the first three pitches: low, mid and high, but the one that seems to lack in Spanish is the one which usually indicates enthusiasm and happiness: the English extra-high pitch (Valenzuela Farias, 2013, p. 1068). This is one of the reasons why Spanish people are perceived to speak monotonously (Coe, 2011).

In sum, English questions are more flexible than Spanish ones in terms of stress and intonation. English turns to intonation and stress to express and change the meaning of a sentence, whereas Spanish changes the sentence or adds words to change or emphasize the meaning (Valenzuela Farias, 2013, p. 1066). Even though English and Spanish have many similarities, different factors such as pitch and duration are very different and could therefore affect the target language's question phrasing negatively.

3. Research Question and Case Study

3.1. Research Question

The purpose of this study is to provide an explanation of the effects Castilian Spanish stress and intonation may have on interrogative English sentences of Spanish L2 learners of English. The first step is to find out the particular phenomena and context where the differences (and thus challenges) will be encountered. This step will be carried out with the ultimate aim of enlightening ESL teachers in how to help their adult Spanish students improve their English-speaking-skills. The questions aimed to be answered are the following:

1. How do the intonation and stress patterns of Spanish interfere in Spanish adult ESL learners when formulating questions in English?

2. To what extent does the correct usage of L2 stress and intonation in English depend on one's level of proficiency and/or the age of onset of acquisition?

This project description paper[3] will present a proposal of a case study which aims to find answers to the questions above. The case study is partly a replica of the study carried out by Valenzuela Farías (2013) *"A Comparative Analysis of Intonation between Spanish and English Speakers in Tag Questions, Wh-Questions, Inverted Questions, and Repetition Questions"*. Her study is a comparative analysis of the intonation between Spanish and English speakers in the questions mentioned in her title. Her study focused on ESL Hispanic speakers but this analysis was adapted to ESL Castilian Spanish speakers. Furthermore, as the title of her study suggests, the main area of research is intonation however for the purpose of this study, an analysis of stress will be added as well. This analysis is inspired by the work of Prieto and Roseano (2018).

3.2. Case Study: Method and Design

To address the research questions mentioned above, the project description will take the following design. In this section the participants, data collection and analysis shall be explained.

A) Participants

All participants are adults (45+ years old). The participants will be divided into three groups: a group twenty native speakers of English, a group of twenty Spanish ESL learners at an intermediate level (of English) and a group of twenty Spanish ESL learners at a proficient level. Both groups of Spanish speakers will be participants who are currently residing in Spain and taking English classes at a language academy. Both groups of Spanish speakers will be subdivided into two groups: a group participants who started learning English in high school and a group of participants who started studying English in their adulthood. The English participants are to be native British English monolingual speakers. This is in contrast to Valenzuela Farías' (2013) participant control group, who were native speakers of American English (from Minnesota). Unlike the participants from Valenzuela Farías' study (2013) who

[3] Initially, this paper was set out to be a study in which data was to be collected. However, due to the COVID-19 lockdown, the study could not be carried out, and the focus shifted to a project description.

were from South American countries (Chile, Venezuela, Peru and Ecuador), in this study there will be two groups of Castilian Spanish ESL learners. The intermediate group will be of participants who have attained the FCE (First Certificate in English) Cambridge English Certificate. This B2 First certificate places the participant in an intermediate B2 level of English and preparing for the C1 CAE: Certificate in Advanced English. According to the CEFR (Common European Framework of Reference for Languages) by the Council of Europe (2020), the participant working towards the C1 level at a B2 level can interact using "discourse functions to preface his remarks" (COE, 2020). This will be in contrast to those participants who have attained the CAE exam already and are working towards the C2 CPE (Certificate of Proficiency in English) exam. According to the CEFR framework, a learner aiming to attain the C2 certificate can "interact with ease and skills, picking up and using non-verbal and intonational cues apparently effortlessly" (COE, 2020). As can be seen, the requirement of the intermediate level does not explicitly require correct usage of intonation, but the group of the advanced/proficient level does.

B) Data Collection

First, an explanation of the material used to collect the data will be given and then the tasks for data collection will be presented.

B.1. Material

The materials that will be used in this research are the same set of questions used in the study carried out by Valenzuela Farías (2013). This research focused on the comparison between the intonation of native American English speakers and ESL South American Spanish differences. Even though participants in this study had different varieties of Spanish and English as their first language, the material can be replicated to be used in this project.

The material will be provided to the participants in a printed document which contains two sets of questions. The first set of 12 questions is in English and the second set is in Spanish (the sets are the same questions in both languages). These are as follows:

- English Questions:
  a) Wh- questions: What are you doing? Why is she crying? What can I do for you?
  b) Tag questions: It's a nice day, isn't it? People are worried about the economy, aren't they? The Dodgers won, didn't they?
  c) Inverted questions: **John** cooked dinner? John **cooked** dinner? John cooked **dinner**?
  d) Repetition questions: What am I doing? What are you doing? You are doing what?
- Spanish Questions:
  a) Wh- Questions: ¿Cómo estás? ¿Porqué está llorando ella? ¿En qué puedo ayudarte?
  b) Tag Questions: ¿Es un bonito día, verdad? ¿La gente está preocupada de la economía, cierto? ¿Ganó Real Madrid, cierto?
  c) Inverted Questions:¿**Juan** preparó la cena? ¿Juan preparó la **cena**? ¿Juan **preparó** la cena?
  d) Repetition Questions: ¿Qué tengo que hacer? ¿Qué estás haciendo tú? ¿Estás haciendo qué cosa? (Valenzuela Farías, 2013, p. 1083).

B.2. Tasks

Using the materials explained above, participants will have to complete the following tasks. The first task will have to be completed by all three groups. They will be given the printed document with the instructions and the two sets of questions. The questions will not be read out loud by the data collector (a Spanish-speaking student assistant) in order to avoid influencing the participants' speech. He/she will explain the task and ask the participants to read the instructions on the document. Participants will then have to read these out loud. In this first

task, only the first set of questions (in English) will be read out loud. The second part will not involve the control group (the English native speakers): it will be carried out the two Spanish groups (including all subgroups). In this part they are to read the second set of questions out loud. These are in Spanish (see Appendix A, p. 65). Both tasks will be audio recorded by the data collector.

The third and last part involves a perception test. All participants (both English and Spanish speakers) will be asked to take part in this perception test. The student assistant will play the audios previously recorded. Participants will listen to each other's recordings respectively. In other words, the English participants will listen to a selection of the audio recordings by both Spanish groups and the Spanish groups will listen to the English participants' recordings and their own. When listening to the recordings, the student assistant will ask questions about how the intonation is used in different questions, the speaker's attitude, intentions in the questions. (see Appendix B, p. 66).

B.3. Analysis

The data collection will be carried out by a student assistant. Once the data has been collected, this will be handed in to the researcher. Although the data collection is a highly-controlled and less naturalistic setting, the reason why it was selected was because it can provide the exact same questions in both languages without the interference noise of other interrogative sentences or statements that might be irrelevant to the study. But because both sets are the same questions, to avoid influencing the data in English, the Spanish participants will be asked to read the English questions first.

Once the researcher has received the recordings, and the perception tests, the audio recordings will be imported into the program *"Praat"*[4] where the utterances will be shown in

[4] Praat is a computer software designed by Paul Boersma and David Weenink from the University of Amsterdam. This programme is used in the field of linguistics; more specifically in phonetics. It offers a wide

spectrograms. Among other things, the researcher will see the intonation contours, pitch span, intensity, duration, frequencies and stress of each sentence. Unlike Valenzuela Farías' study (2013), here the stress location and length will be analysed as well. The values for variables such as intonation contours, pitch span, intensity, duration, frequencies and stress will be extracted from *Praat*. Afterwards the mean of each variable will be calculated. The average results will first be compared intra-participant and afterwards across participants and groups. In other words, the data will be used to compare the results of the three groups. First the results of the English and Spanish groups will be compared. Then, the results of the Spanish groups will be compared. How this will be compared stems from how similar their placement of stress and their intonation contours could be to the English speaking participants. What will be compared is which of the two proficiency groups comes closest to the English speaking group in relation to placing stress and similar intonation contours. This will reveal the extent to which the level of proficiency could play a role in the production of speech in the target language. This analysis could indicate whether there is a possible connection between the advancing in the applied knowledge of the target language and the decrease of L1 interference. Additionally, the results of the subgroups of both Spanish groups will be analysed. What this potentially could show is the connection between proficiency and age of onset of acquisition. Afterwards, the data will be compared to the results shown in Valenzuela Farías' study (2013). Since her English speaking participants were American and her Spanish speaking participants were Hispanic, comparing her results to the ones in this study (British and Castilian Spanish speakers) might give interesting insights from a language variation perspective.

The perception test will be used as an aid to interpret the data, in order to bear in mind the individual differences and the level of awareness of the participants towards stress and intonation. This will also give researchers insight about individual characteristics.

range of functionalities such as speech analysis, labelling and segmentation, speech synthesis and more. For more information, visit their website: http://www.praat.org.

3.3 Predicted Results

Regardless of the variety of English or Spanish, according to Valenzuela Farías (2013, p. 1079) stress and intonation do play a role in the speech of ESL Spanish speakers. Because of that, this description paper expects the results of Valenzuela Farías' study (2013) to be found in this study too. Her results will be the starting point of the predicted results of the current study[5]. However, in the starting point it will also be bore in mind that some differences can be expected among varieties. The types of questions that this research will look at are the following four, which are next presented along with the results in Valenzuela Farías (2013) study and the current research's predictions:

A) Wh-Questions: the results in Valenzuela Farías' study show that the main difference in wh-questions amongst groups was the mean pitch (±140Hz English speakers, ± 180 Hz Spanish speakers). Interestingly, in her research Spanish speakers did change the intonation patterns in wh-questions from one language to the other, suggesting that they did master the intonation of the English questions and therefore carried no negative transfer from Spanish. These participants have an advanced proficiency level of English and had lived in the United States for at least two years. Taking these results as a starting point, the predictions of the results in this study are similar. It can be expected that the participants in the second group (the Spanish speakers with a proficient level of English) will have similar results to the participants in Valenzuela's study (2013). This prediction is also based on the hypothesis of the L1 interference being less present in learners with a high level of the foreign language. Another prediction is that participants with an intermediate level of English, in relation to their L1 interference could show a bigger difference between the intonation contours of Spanish and English wh-questions.

B) Tag Questions: In Valenzuela Farías' study (2013), participants read the tag questions in both languages with a final rising intonation. The intensity of the intonation was higher when

[5] Because of the COVID-19 restrictions, it was not possible to connect the results of Valenzuela Farías' study (2013) to new data.

read in Spanish and English by Spanish participants. The prediction of the results in this study can be that the participants will read the tag questions in both languages with a final rising intonation. Additionally, based on the results of Valenzuela Farías' study (2013), it can be predicted that the intensity of the pitch when Spanish speakers read out the tag questions in both languages will be higher in contrast to the English speakers.

C) Inverted Questions. These type of questions showed a variety of results in Valenzuela Farías' study (2013). Both groups (English and Spanish speaking) ended half of the questions with a final rising contour, yet a visible difference was shown in the pitch contour. Whereas the pitch rose significantly in English speakers, it only rose slightly at a low level for Spanish speakers. Furthermore, when the Spanish participants read Spanish sentences aloud they did so with a final falling intonation contour, yet ended the English sentences with a rising contour. It was suggested that this was due to the falling intonation being used in Spanish with the intention of showing irony or surprise in inverted questions, yet they seem to have detected a difference in English sentences, and thus applied a rising contour. Here, no negative transfer was clearly visible. Since not a clear language transfer was noticeable, the expected results in this study are along the same lines: no main transfer will show in the intonation and stress patterns of English inverted questions. The difference from Valenzuela Farías' study (2013) is that the intermediate Spanish group could show somewhat L1 transfer.

D) Repetition Questions: Lastly, it was in repetition questions where the most significant result was shown in Valenzuela Farías' study (2013). Mainly, it was in repetition questions where Spanish participants sounded "flat" because they maintained the same pitch (without a rise of fall) throughout the length of the question, whereas English participants showed a rising intonation contour and had a more varied pitch (Valenzuela Farías, 2013). As the study showed, in accordance to the theory presented in the theoretical framework, stress is less flexible in Spanish than in English (Ladefoged & Johnson, 2014). Because of that it is expected that some

Spanish speakers (of both groups) will struggle with placing the right stress in the English questions, such as the repetition questions.

The predictions in relation to proficiency are as follows: it is expected that the Spanish speakers with an advanced level of English will sound more English-like than those at an intermediate level, meaning that as they make upward progress through proficiency levels they master the English language in different domains. They then will acquire the usage of intonation and stress in English. This will be shown in the results: the Spanish advanced group will show more similarities in their intonation contours with the English group than the Spanish intermediate level group. What will be insightful about this aspect of the study is to analyse in which types of questions proficiency plays a role. In other words, which type of questions will be closer to the English stress and intonation patterns and which type of questions differ the most from English. Another interesting insight could stem from comparing the subgroups of the Spanish participants. The four groups (two groups of participants who started learning English during teenage years or and two who started during adulthood) will be compared to see which factor weighs more heavily to come closer to sounding native-like. Lastly, the hypothesis on the perception test, is that the group of Spanish advanced English learners will show more awareness of stress and intonation in comparison to the intermediate level group. This is expected because one of the requirements in order to get the CPE Cambridge Certificate is for learners to make use of intonation patterns to deliver their message and intention behind the message accordingly.

In sum, the predictions and hypotheses are based on Valenzuela Farías' results of her study (2013) in combination with previous theories/studies. It is expected to find differences in stress and intonation usage among the three groups. It will become evident that stress and intonation do affect language learning. This study, when carried out, will show that the differences between Spanish and English can have an impact in transferring L1 intonation and stress into

the L2. An implication and recommendation for further research that could be useful is to calculate the correlations between the different measures in the L1 and L2, in order to get statistical results about the probability and the nature of the influence an L1 can have on a second language.

3.4. Implications for the ESL classroom

The awareness and knowledge of both L1 interference and adult language learning has implications within the classroom setting. Mainly, these implications should be used positively so it could prevent it from having negative effects on learners with the risk of fossilizing errors. Firstly, instead of avoiding the topic of pronunciation, stress and intonation, teachers could point out the similarities between both languages to aid the learning together. Unfortunately, this is not the current situation in EFL classrooms, as pronunciation, stress and intonation are aspects of the language that are often neglected (Valenzuela Farias, 2013).

Additionally, pointing out the possible transfer of specific aspects from their L1 might help anticipate problems that could turn into transfer errors (Benson, 2002, p. 70). Today, it is very common for language teachers to see these transfer errors in the negative scope "as the result of carelessness or lack of concentration" (Mitchell et al, 2013, p.13). Not only are these errors clearly traceable to their L1, but as discussed earlier, if they originate from the L1, it could be used beneficially towards successful learning of the second language, by either connecting or contrasting the languages. SLA research does not advice avoiding using the first language in the classroom; but it can actually be used as a way into understanding the second language in addition to using it to explain non-trivial grammatical issues (Cook, 2001, p. 157). It is here where the importance of the teachers in the classrooms come in: studies suggest that bringing stimulus to attention, and raising awareness of the pronunciation errors leads to successful output (Mitchell et al, 2013, p.147). Learners should not only be led to notice the error but teachers should extend that process to a level of understanding the errors as well (Sanz,

2005, p. 15). These errors seem to frequently happen to beginner students because they draw more information from the first language; and slowly as they reach intermediate levels, draw more conclusions from the second language (Littlewood, 1984 p. 26). It could be that giving explicit information about the language increases how fast and how well a learner learns a language "and the final attainment level of learners, especially adult learners" (Sanz, 2005, p. 13). Then, the explicit instruction could lead to the implicit knowledge of the applications of stress and intonation across languages (Hulstijn & de Graaf, 1994).

This research focuses on SLA acquisition, and it aims to show how interlanguage looks like in Castilian Spanish speakers of English. When carried out, the results of this study could be used in classroom instruction as it provides teachers some background information to help their learners learn the pronunciation successfully and use acoustic cues to understand the native-speaker's messages successfully.

4. Conclusion

Learning a second language (SLL) differs from learning the first one in various ways. Among others, in SLL, the first language has already been consolidated in the brain and has been proven to exert influence on the second (Selinker, 1972, Skehan, 1989, Dörnyei, 2005, Ellis, 1997). English is the language taught most as a second language globally, and as a consequence, research in the field of efficient TESL is broad. Traditionally the main focus of TESL was grammar and lexis, yet priority shifted slowly, giving rise to other skills such as speaking. Within the teaching of speaking English, pronunciation and suprasegmental features of language is scarce. Stress and intonation are two suprasegmental features of language which can help or hinder listeners to understand the speaker. Because of the effects a mother tongue can have on a second language and the lack of importance given to teaching suprasegmental feathers of language, this project description paper focuses on analysing the effects of Castilian

stress and intonation on English. More specifically, it focuses on the influence that Castilian Spanish has on English questions when uttered by adult Castilian Spanish speakers. The first question this study aims to answer is to determine the level of influence these features have from one language to another. Additionally, it aims to see the extent to which the level of proficiency and age of onset of acquisition of English exerts on English questions when uttered by Spanish speakers.

The theoretical framework clarified the terminology, mainly second language notions (First Language Interference, Age of Onset of Acquisition, Adult Second Language Learners and Proficiency), stress, intonation, and how these features can influence other languages (Castilian Spanish on English, more specifically). The proposal was based on Valenzuela Farías' study (2013) "A comparative Analysis of Intonation between Spanish and English speakers in Tag Questions, Wh-Questions, Inverted Questions, and Repetition Questions". This study was replicated and applied to Castilian Spanish with the addition of the variable of stress inspired by the work of Prieto and Roseano (2018). Initially, this project was meant to be an empirical one but data collection was not possible due to the lockdown in the COVID-19 pandemic. Because of this, there are no empirical results but hypotheses drawn as predictions based on the results in Valenzuela Farías' study (2013) instead.

The predictions of the results are twofold. Firstly, the predictions based on the influence of stress and intonation are as follows. In Wh-questions, the transfer of stress and intonation will not be a negative one, mainly because participants will adapt the intonation and stress of the target language. In Tag Questions, the final rise will have more intensity in the question phrasing of Spanish speakers in comparison to English speakers. In Inverted Questions, Spanish participants will also apply a final rising contour (just as English speakers would), only if the message does not reflect irony or surprise. If participants interpret these questions with irony and/or surprise, they will read the questions with falling intonation. Lastly, the most significant

contrast this study predicts is found in the Repetition Questions. In these questions, Spanish speakers will sound "flat" in English because they will maintain the Spanish equal pitch throughout the question, in contrast to the rising intonation contour of the English speakers.

Secondly, the predicted results in relation to proficiency and age of onset of acquisition are as follows. It is predicted that Spanish speakers at a proficient level of English will show more similarities with the control group than Spanish speakers at an intermediate level of English. The group of participants with a lower level of English will show more interference. These results may seem very obvious. However, one of the reasons the AoA variable was included was because of the clashing results found between theory and practice. In theory, participants with a proficient level of English should show more resemblance with English speakers and participants with a lower level should show more interference. However, the author's professional experience in the field of TESOL suggests a very different picture. Spanish adult learners of English who started learning English as adults and whose levels in English skills were proficient according to the Common European Framework Reference (CEFR), still struggled with being understood in international meetings, which points out to the following statement: having a high proficiency in a language does not necessarily mean that the oral abilities are near native. This outcome resulted in the hypothesis that perhaps the age of onset of acquisition weighs more than the proficiency levels shown in English Official Tests. It could be that age of acquisition plays a very important role, even more than the achieved level of proficiency. As the example shown reveals, these adult language learners struggle with the pronunciation aspect of English. Age then appears to be a crucial aspect in the study of the acquisition of the pronunciation of a second language. Perhaps then, an intermediate level learner of English who started learning English in high school, with a strong phonetic coding ability (Carroll, 1981) will show more native-like pronunciation than a proficient level learner who started learning English during his/her adulthood. Despite the evidence shown in studies

such as by Ellis (1997) that not all learners are bound to a critical period, the current study could show that the individual differences and the age of onset of acquisition weigh heavily as factors for the achievement of the pronunciation of the second language. It is because of this reason that it is of relevance in the field of SLA to carry out this type of research, to test whether the teaching of stress and intonation can aid the learners, moving away from the regulations of proficiency and focusing on the goal of achieving communication.

Total word count: 18570 words

(including figures, footnotes, references and both appendixes)

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Appendix A: Handout for Participants

In this first task you are going to read the following sentences out loud. There are twelve English questions and twelve questions in Spanish. First read the English questions. Afterwards, read the Spanish questions out loud. This will be audio recorded. If you need to, take breaks in between questions.

English Questions:

1. What are you doing?
2. Why is she crying?
3. What can I do for you?
4. It is a nice day, isn't it?
5. People are worried about the economy, aren't they?
6. The Dodgers won, didn't they?
7. **John** cooked dinner? (read out with a focus on John)
8. John cooked **dinner**? (read out with a focus on dinner)
9. John **cooked** dinner? (read out with a focus on cook)
10. What am I doing?
11. What are you doing?
12. You are doing what?

Spanish Questions:

1. ¿Qué estás haciendo?
2. ¿Porqué está llorando ella?
3. ¿En qué puedo ayudarte?
4. ¿Es un bonito día, verdad?
5. ¿La gente está preocupada de la economía, cierto?
6. ¿Ganó Real Madrid, cierto?
7. ¿**Juan** preparó la cena? (léalo con énfasis en Juan)
8. ¿Juan preparó la **cena**? (énfasis en cena)
9. ¿Juan **preparó** la cena? (énfasis en preparó)
10. ¿Qué tengo que hacer?
11. ¿Qué estás haciendo tú?
12. ¿Estás haciendo qué cosa?

Appendix B: Perception Test

First you will hear audio recordings of a native English speaker. For each audio fragment, answer the following questions:

1. Overall, how would you rate the use of stress and intonation in the question? (1 -10)

   10: very clear and aligned with the message.

   1: unclear, doesn't add anything to the message.
2. Can you tell what the attitude of the speaker was? If yes, what was it?
3. Can you infer what the intention behind the question is? (Is the speaker surprised, doubtful, nervous or impatient?).
4. Can you identify the type of question this is?
5. What do you think was the message that the speaker wanted to convey?
6. From 1 to 10 how 'flat' or 'monotonous' do you consider the speaker's voice? (1 not being monotonous and 10 very monotonous).

Now you are going to listen to your own questions. You will do the same as before: for each fragment, answer the following questions:

1. Do you think you used the same stress and intonation as the speaker in the audios you've just heard? How and why?
2. Do you think your stress and intonation was accurate?
3. What was the message you wanted to convey with this question? How do you interpret it?