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**Subjunctive mood in future  
temporal subordinate clauses**

A study on Italian speakers under L1 attrition

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## Abstract

The native language in an adult multilingual speaker is commonly assumed to remain unvaried across the lifespan. However, during the past decades several studies have shown that the multilingual experience is able to modify the L1 of a multilingual speaker. Different aspects of the L1 may be reshaped, from phonological to morphosyntactic (see Schmid, 2016 for a review).

This thesis focuses on this process, defined L1 attrition, in Italian native speakers living in Spain and speaking Spanish for a long time. More specifically, this study aims at investigating a syntactic structure that may be affected by L1 attrition, i.e., temporal subordinate clauses expressing future events.

Both languages accept the use of the indicative mood and the future tense in the main clauses of such structures. However, Spanish requires the present tense of the subjunctive mood in the temporal subordinate, whereas the subjunctive mood is unacceptable in Italian; in Italian, the future tense of the indicative mood is used, instead.

The hypothesis is that Italian native speakers who live in Spain and speak Spanish on a regular basis tend to judge the subjunctive mood in the temporal subordinate clauses (ungrammatical in standard Italian) as more acceptable than Italian native speakers who do not speak Spanish.

The hypothesis will be tested via acceptability judgments on auditive stimuli. Such methodology is meant to recreate the linguistic context of occurrence of the clauses and to observe whether the investigated population is undergoing a change in their Italian (L1) competence, thus proving that a process of L1 attrition is taking place.

## Introduction

L1 attrition is a widely-attested and discussed phenomenon within the bilingual community. The definitions are several and each of them include different aspects: some of them include a general description and others sometimes provide an explanation as well as the causes that generate it. The main concepts are that the factors that can be linked to the emergency of such phenomenon are several and be

(i) L2 dominance; (ii) low L1 use; (iii) early onset age of acquisition; (iv) long length of residence in an L2-speaking country; (v) negative attitude towards the L1; (vi) positive attitude for the L2

The study contains and aims at answering two research questions.

**RQ1:** Do Italian-Spanish bilingual speakers judge temporal subordinates expressed with the subjunctive mood in Italian as more acceptable than Italian monolinguals do? Is acceptability a function of language dominance, i.e., the more the L2 has an influence, the higher the acceptability is?

**RQ2:** Do bilingual speakers show higher reaction times than monolingual ones?

The study is carried out online-based on Gorilla platform with the administration of an acceptability judgment task specifically created for the study to observe the experimental conditions of the present indicative, future indicative and present subjunctive in Italian and the Bilingual Language Profile (BLP). The stimuli were 18 conditional and 18 filler sentences, for a total of 36 items.

Results showed that:

- Bilingual speakers accept the subjunctive mood in temporal subordinates more than monolinguals, that consider it ungrammatical;
- There is a interaction between dominance and L1 attrition, and the more the L2 has an influence, the higher the acceptability of the subjunctive mood is;
- The reaction times are higher for the bilingual speakers than for the monolingual individuals.

The results also indicated that the future indicative did not receive the maximum acceptability (i.e., 7) and that the present indicative was judged more acceptable than the subjunctive but less acceptable than the future indicative. We suggest this is caused by the modification of the use of the tenses to express future in Italian speakers.

The data collected and analyzed here proved the importance of considering the bilingual speakers differently from a homogeneous group that must be compared to the monolingual groups (one group of L1 monolinguals and the other group of L2 monolinguals). Analyzing the bilinguals as part of a continuum allows to better observe differences and patterns among speakers, and to better focus on the tendencies of use that create among the speakers. Furthermore, the continuum helps overcoming the issue of identifying the threshold that indicate the limits of each group.

The present work is organized in 3 chapters.

Chapter 1, “L1 attrition and the sequential bilingual speaker”, outlines the topic of bilingualism and its subphenomenon of L1 attrition. After providing an overview of the definitions available in the literature, we conclude with a possible definition, used throughout the present work. Then, we also overview the characteristics of bilingual speakers, with a special focus on sequential bilingualism and a brief explanation of the different accounts on bilingual syntax. We outline the causes that predict the appearance of L1 attrition: (i) L2 dominance; (ii) low L1 use; (iii) early onset age of acquisition; (iv) long length of residence in an L2-speaking country; (v) negative attitude towards the L1; (vi) positive attitude for the L2.

Chapter 2, “Subjunctive and temporal clauses in Italian and Spanish” provides the information on the construction of the Italian and Spanish subjunctive mood, the distribution in matrix and embedded clauses, and the alternation of the two moods attested in both languages. The same chapter introduces the temporal clauses: what they express and how the events they contain are expressed. A particular focus is on the expression of future events in the temporal clauses. Aiming to provide a thorough background for the study, the second chapter also outlines the use of the present simple as an alternative to express the future in the spoken language.

Chapter 3, “The study” is dedicated to the study carried out, describing the research questions and their hypotheses, the method and the results obtained. These are discussed and contextualized in regard of the research questions.

## **CHAPTER 1**

### **L1 Attrition and The Sequential Bilingual Speaker**

The identification of who an attriter is may seem to be a more simplistic task than it actually is. The factors to take into account are numerous and the considerations to make are several. In this chapter, we will review the state of the art on the topic and highlight some issues regarding aspects more relevant for the present study. In section 1.1, the main definition of language attrition proposed over the years are overviewed, whereas section 1.2 is focused on the characteristics of the interested population, i.e., bilinguals. The causes of attrition that have been pinpointed by the scholars are presented into different sections with different examples.

#### **1.1 Definitions of L1 attrition: an overview**

Language attrition is not a unitary phenomenon, as underlined by Hicks and Dominguez (2020): its representative feature of affecting any of the linguistic levels makes it indeed rather challenging to define the aforementioned phenomenon. It has been observed that length of residence as well as the motivation, the linguistic dominance and L1 exposure have a great impact on the appearance of L1 attrition.

L1 attrition can impact all the levels of the linguistic competence and it is not easy to determine an exhaustive and precise description of all the affected elements. Lexicon, however, being an open-class system (Schmid, 2008), is known to be particularly affected. Typical examples of language modifications regarding lexical aspects are the coordination of lexicon of both languages (code-switching), the integration of linguistic items from one language to the other (borrowings), the re-analysis of L1 elements on the basis of the corresponding L2 ones (restructuring) or even the mixture of the elements from L1 and L2 that create a new item (convergence). Perhaps for the difficulty of providing an exhaustive and fine-grained list of all the elements affected by L1 attrition, no mentioning of it appears in the vast majority of the definitions. Taking into consideration different studies and definitions, however, it is possible to deduce that L1 attrition can happen at a phonetic and phonological, morphosyntactic, lexical and pragmatic levels (see Schmid & Köpke, 2019 for a review).



In spite of lacking a complete list of the affected elements, it is quite common for the definitions of L1 attrition to comprehend the possible causes. Schmid (2011: 3) describes language attrition as “the (total or partial) forgetting of a language by a healthy speaker”. This definition, however, arises the issue of how the phenomenon is conceived by some scholars – the choice of lexicon in the definition sheds a negative light, reminding the concept of language loss (see 1.4). Schmid and Köpke (2017a: 637), on the other hand, define it in a more neutral way, “as the consequence of the co-activation of language, crosslinguistic transfer or disuse”. In this vein, several scholars (e.g., Grosjean, 2008; Dostert, 2004) post an approach that consider this phenomenon as a language enrichment and a consequence to the adaptation of the speakers to a bilingual (or even multilingual) environment. According to this point of view, the attriter is a speaker who has lost the ability to communicate only in their first language.

Hicks and Dominguez (2020: 143) thoroughly illustrate language attrition by adding to the definition the importance of the context of use and of the context of the speaker. According to them, it is “related to the use, processing and grammatical representation of an L1”. Moreover, their definition also suggests that L1 attrition, being a linguistic phenomenon, implies the involvement of cognitive aspects. The importance of cognition in L1 attrition was already highlighted by Isurin (2007), who defined it as a cognitive (rather than a merely linguistic) shift, alongside with Schmid and Beers Fägersten (2010).

The use of the language is another important aspect of L1 attrition: some scholars (e.g., Sorace, 2016; Vulchanova et al., 2022) claim that attrition is rather a simplification of certain elements in the language, i.e., those who are present, and thus used, in both languages, therefore possessing a wider range of referentiality, which probably creates the conditions for language economy<sup>1</sup>.

Language attrition has also been defined in relation to bilingualism and two main positions emerge: for some scholars, such as, for instance, Schmid and Köpke (2017b), no distinction needs to be made between the two concepts since all bilinguals are to be considered attriters.

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<sup>1</sup> Modern principle of economy in language: It is a principle that belongs to the Minimalist Program and claims that a syntactic structure should contain only the necessary elements. Chomsky (1995)

Other scholars, on the contrary, claim that the two concepts are not equivalent: to exemplify such hypothesis, we report a version of the five main processes that occur in the interaction between two languages, endowed by Pavlenko (2000). Here, attrition (5) is located among the phenomena that characterize bilingual speech and is defined as “loss of (or inability to produce) some L1 elements due to L2 influence” (Pavlenko, 2000: 179), providing a contextualized view but in a negative perspective:

1. Borrowing
2. Restructuring
3. Convergence
4. Shift
5. Attrition

Austin et al. (2015) locates the language attrition in a specific sub-chapter dedicated to language loss, aphasia, and typical development in bilinguals. In this section, attriters are addressed as fundamental individuals. In point of fact, they provide evidence that can yield to a better understanding of the distinguishing aspects between monolinguals and bilinguals.

From this brief overview of the definitions of L1 attrition provided over the years, it is possible to identify its main features and the factors that contribute to its realization, i.e., L2 input, L1 usage, age of acquisition, length of residence in an L2-speaking country, and motivation. In addition, based on the state of the art, we can try to provide a definition of L1 attrition that will be used throughout our work: a phenomenon of modification of the L1 in favor of L2 features.

As for the relation between L1 attrition and bilingualism, in this thesis we endorse the second position, whose claim is that all attriters are first and foremost bilinguals (Pavlenko, 2000; Gallo et al., 2021). Yet, the two concepts are not equivalents, consequently, being bilinguals is a necessary but not sufficient condition for L1 attrition. As a consequence, we assume that L1 attrition can be identified as a sub-phenomenon of bilingualism.

## 1.2 The sequential bilingual adult

In this section, a profile of the attriter will be sketched.

As mentioned in the previous section (§1.1), all attriters are first and foremost bilinguals. More precisely, they are *sequential* bilingual speakers, according to the traditional classification of bilingual speakers. Such classification is based on the age of acquisition of the two languages. Through such criterion, two main types of bilingual speakers are identified: (i) simultaneous bilinguals, who acquire two languages at the same time from birth (both languages are considered L1s in this case); (ii) sequential bilinguals, who first acquire one language (L1) and subsequently the other (L2). Depending on the age of L2 acquisition, sequential bilinguals are further classified into early sequential bilinguals, who acquire the L2 from an early age and late sequential bilinguals, who acquire the L2 after puberty (Montrul, 2008). Attriters fall in the second class (ii), and can be either early or late sequential bilinguals.

Not all sequential bilinguals, however, are attriters. The profiling of attriters, which has been the focus of several studies (e.g., Isurin, 2007; Gallo et al., 2021), has to do with additional factors. In particular, the identification of who the attriters are is closely related to the external circumstances, the apparent linguistic behaviors and/or the specific set of internal neurocognitive states and processes (Gallo et al., 2021). Given the focus of our work, we will not address sociolinguistic aspects and external circumstances that could lead to L1 attrition. Instead, we will focus on linguistic behaviors and neurocognitive states and processes.

Generally speaking, the first language in sequential bilinguals is usually assumed to be the stable and unvarying baseline from which acquisition, knowledge and use of the L2 deviate in some aspects (Schmid & Köpke, 2007). Particularly in the early stages of acquisition, the transfer from L1 to L2 seems to be especially intriguing, even if it is important to notice how during the process of L2 acquisition, a shift from L1 to L2 occurs, recognizable thanks to the decrease of the level of L1 influence. Language development is not a unidirectional process and the changes that occur in the language can illustrate the knowledge system and the processes governing language and acquisition (Schmid & Köpke, 2017). The non-linearized tendency of the languages is further testified by the

fact that the linguistic systems have moments of stability and moments of change, characterized by transition periods that can last for several years (Grosjean & Li, 2013).

Psycholinguistic evidence shows that bilinguals differ in language processing from monolinguals (e.g., Van Hell & Dijkstra, 2002). Hernandez, Bates and Avila (1994), for instance, established that bilinguals have an 'in-between' processing. On the same line, Schmid and Beers Fägersten (2010) highlighted that attriters produced a more disfluent speech in their L1, characterized by a higher proportion of empty pauses (5-10%), repetitions and retractions with respect to non-attriters. They hypothesized that empty pauses are markers of hesitation in the speech planning, due to heightened cognitive load demanded by the bilingual speech production and also due to a diminished access to their L1.

Furthermore, a neurolinguistic study by Köpke and colleagues (2021) investigated the executive network in two bilingual groups, one of simultaneous bilinguals, and one of late sequential, balanced for proficiency in the L2. The participants took part in a picture-naming task for both their L1 and L2, in which they were scanned through an anatomic and functional magnetic resonance. The data determined no asymmetry in their switching from one language to the other, demonstrating that the proficiency in the languages is of greater relevance in the inhibition of the other language than age of acquisition. The only difference found was in line with what could be expected considering Schmid and Fägersten (2010): the response times in the switched conditions are slower as the cognitive process is greater.

Vulchanova and colleagues' (2022) study supports the view that the changes attested under the phenomenon of L1 attrition are not changes in the grammar itself, but rather in the ability to access to it and change the labels according to the referents in the context. They analyzed the results of a L1 memory game from Spanish speakers living in Norway, who had been learning and speaking Norwegian for an average of approximately 10 years. Such study shows a drastic change in their usage of deictics in Spanish, with an overuse of the most neutral and most explicit form that can be adequate for a wider range of referents. Similarly, Sorace and Filiaci (2006) provided experimental data for English-Italian speakers that showed a greater indeterminacy in the use of overt pronouns, supporting the theory that sees indeterminacy augmented by the instability of the

language. In this perspective, the attriter is a highly flexible speaker that can adapt their language to better participate in the language exchange (see 1.4).

When talking about accessibility of a language grammar, we refer to the ability of accessing the different features that each language possesses, at phonological, morphologic, syntactic, semantic, and pragmatic levels. In the present work, we focus on syntactic elements. The two main theoretical accounts regarding bilinguals' syntax differ in that their claim of a shared (e.g., Bernolet et al., 2013) or separate syntax (e.g., Ullman, 2001). While the shared-syntax approach claims that syntactic information and grammatical rules of the two languages are stored together in bilingual minds, separate-syntax accounts posit that the representations of the different languages are stored separately and that they do not influence each other. A mixed approach, however, seems supported by experimental evidence (e.g., Hwang & Hartsuiker, 2018; Kantola & van Gompel, 2011), which suggests that, for similar constructions, the bilingual sentence processing relies on shared syntactic representations. Hicks and Dominguez's model (2020) represents the changes that multilingual speakers undergo, depicting the "mature (end-state) L1 grammar" (Hicks & Dominguez, 2020: 159) in a more proper way. In their model, the processes that produce attrition are not separate from those of acquisition; instead, they are unified, as the computational component operates underneath these reconfigurations as can be seen in figure 1. In this model, the attriter is an adult, full-competent speaker, whose linguistic features are in constant change.

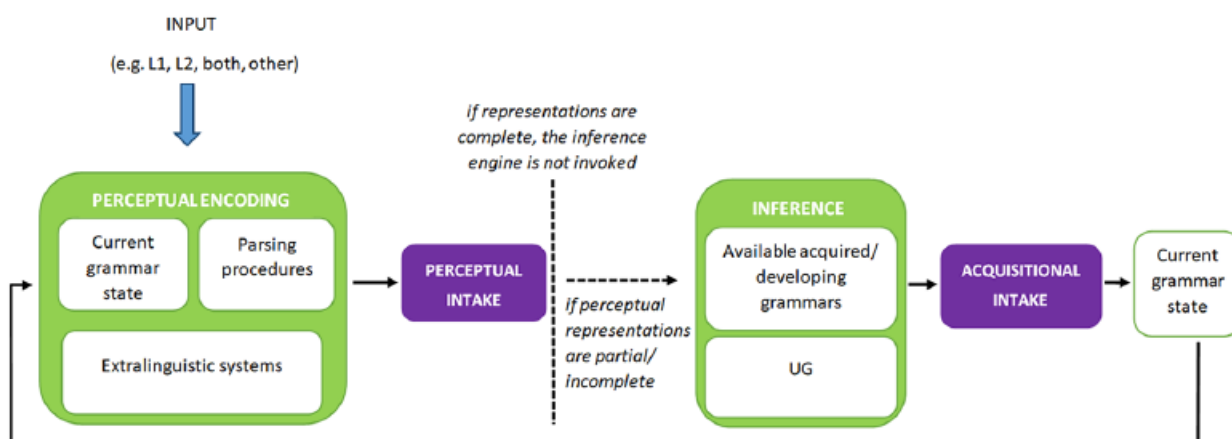


Figure 1 Hicks & Dominguez unified model of grammatical acquisition and attrition (2020)

Furthermore, Bernolet and colleagues (2013) claimed that late L2 learners, at the beginning of the learning process, possess separate representations for the two language structures, but that they later change depending on the acquired proficiency and evolve into integrated representations. In their experiment, the participants were asked to describe pictures with the aim of producing two different types of genitive structures available in their L2. The collected data demonstrated that shared memory representations for lexica and syntactic information increase as a function of the increasing level of L2 proficiency. According to this, sequential bilinguals (therefore, attriters, too) possess shared syntax.

When talking about the coexistence of two languages in the mind of the same speaker, the Interface Hypothesis needs to be mentioned (Sorace & Filiaci, 2006; Sorace, 2011; Chamorro & Sorace, 2011). The hypothesis focuses on the fact that the interfaces between syntax and other linguistic domains (semantics or pragmatics) are more difficult to acquire completely and are more prone to L1 attrition than single modules of the linguistic competence. It also heightened the fact that L1 attrition solely affects the processing of the interface structures, avoiding any effects on the knowledge representations.

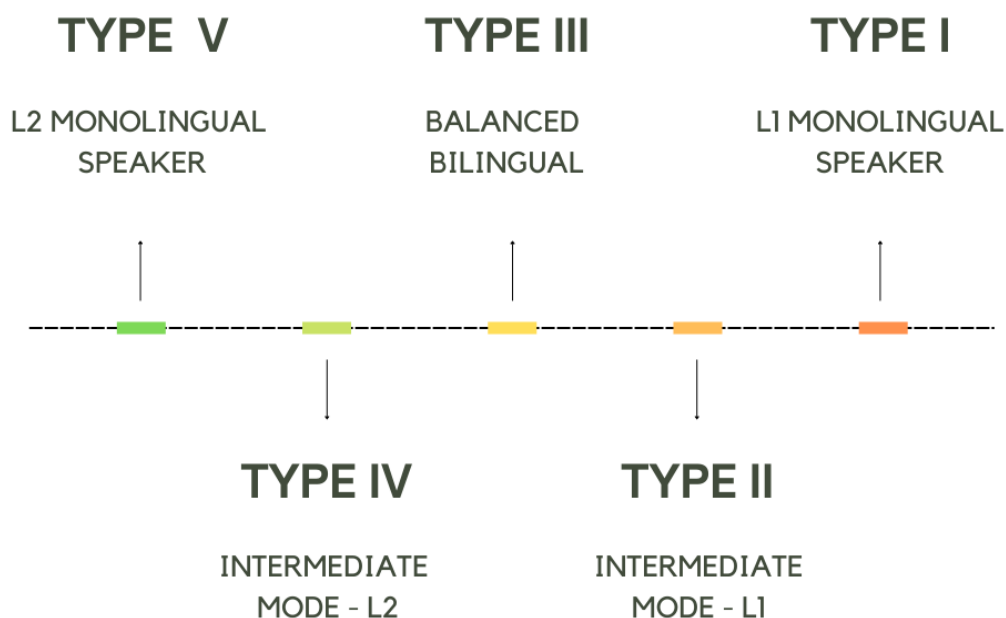
Another characteristic feature of bilinguals and attriters is the persistent adjustment of their speech according to the type of speaker they are interacting with – a monolingual or a bilingual, too (Grosjean, 2001; 2012). The author defined it as “language mode – the state of activation of the bilingual’s languages and language processing mechanisms, at a given point in time” (Grosjean, 2001: 2).

Albeit having in common several characteristics, which have been outlined so far, attriters do not constitute a unique uniform group. For this reason, Sorace (2020) underlined the necessity of identifying more than one type of attriters. A way of classifying attriters is based on whether their parents are attriters themselves or not. Via such classification, two kinds of attriters are identified: (i) first generation of attriters, whose parents are not attriters, and (ii) generational attriters, whose parents might be attriters themselves (Sorace, 2004). In the present work only, attriters belonging to the first kind (first generation) will be taken into consideration.

As for bilinguals in general, several ways of classifying them have been proposed, depending on the different facets taken into consideration: development, dominance,

competence, age of acquisition, context election, culture, and domains of use of the language (Baker, 2011).

One categorization of bilingual speakers was proposed by Schmid (2007), who classified them in accordance to the use of their L1. As can be seen in figure 2, five types of bilinguals are identified. The five classes create a continuum, ranging from a mainly L1 monolingual individual (type I) to an exclusively L2 monolingual speaker (type V). The perfectly balanced bilingual is the type III, while type II and type IV are defined as ‘intermediate mode’, tending respectively more towards the L1 and the L2. A similar idea was sketched in Isurin (2007), where the author states that L1 speakers in the L2 environment create a continuum and equally represent ‘challenging and promising’ population for research on L1 attrition, even if no complete categorization was provided.



*Figure 2: Schematization of the types of bilinguals according to the spectrum provided by Schmid (2007)*

The idea of a continuum, instead of a categoric classification, helps to better represent the plethora of the actual productions of the speakers. The difference in language production between bilinguals and monolinguals has been proven by several studies (e.g., Bergmann

et al., 2015), but the group of bilinguals held a complex variety of differences that need to be thoroughly assessed. This is particularly relevant to understand and consider the cognitive aspect of the bilingual users.

All these publications and studies attest for the complexity of providing a thorough and exhaustive classification of bilinguals and attriters, due to the high interindividual variability and the factors affecting the communicative characteristics of each speaker. As mentioned above, in this paper we will focus on first generation attriters and sequential bilinguals.

### **1.3 The effects of L2 exposure and L1 usage on language attrition**

The phenomenon of L1 attrition is so vast and varied that no exact cause (or combination of causes) has been determined yet. Previous studies have, however, isolated some of the factors that contribute to generate such phenomenon.

The most discussed element is the relevance of language use. Mehotcheva and Köpke (2019) reviewed the studies that covered the topic: no consistent relationship between the use of the language investigated and the L1 language retention was documented by such studies; nevertheless, one exception was mentioned, i.e., Alharthi and Al Fraidan's study (2016), in which L2 use was a good predictor of L2 proficiency in a period of 15 months.

Cuza (2010) proved, in his study, that 19 long-term immigrants with a proficient level of L2 English accepted and used a proportionally lower amount of verb tenses than monolingual speakers, hypothetically because of the influence of English language features. If we consider simultaneous bilinguals, language dominance is relevant and can affect the production in the non-dominant language. Torregrossa and Bongartz (2018), for instance, demonstrated that German and Italian adolescent bilinguals, who were dominant in German, produced more overspecified forms, typical of the German language, when speaking Italian.

A study by Guitart (1982) investigated the usage of subjunctive in Spanish-English bilinguals. Their countries of origin were different and provided the subdivision for the three experimental groups: Miami Cubans, Venezuelans and Mexican-Americans. While



the first two groups were Spanish-dominant participants living in the United States from 11 years and 18 months on average, the third was English-dominant and had been residing in the U.S. since birth. The experiment consisted in an open-ended questionnaire of five items in which the participants were asked to complete sentences according to their personal experiences. The items were half-completed sentences ending with the complementizer *que* that obliged the subjects to complete the sentences with a sentential complement or a noun clause. The results proved that the Venezuelans, who were the least affected by English influence, produced more subjunctive completions. Cubans produced subjunctive at a lower rate than Venezuelans but at a higher rate than Mexican Americans, who had the lowest amount of subjunctive and highest amount of indicative production. According to the author's conclusions, the data support the hypothesis that language dominance is the key factor in determining modifications of language influence.

Hubers and colleagues (2022) tested the recognition of idiomatic sentences in a group of 503 first generation Dutch emigrants, with an average length of emigration of over 22 years. Their results showed that attrition is not a necessary consequence of emigration and that the possibility of developing L1 attrition lower if the exposure to and usage of the native language is active. The authors hypothesize that exposure is the most relevant aspect in maintaining a correct idiomatic knowledge, and that this would actually prevent attrition.

Spanish-Italian bilinguals were the focus of the study in De Carli and colleagues (2015), where the 56 participants were reported to have the age of onset of L2 acquisition between 0 and 35 years of age. Their results provide evidence for a strong correlation between language proficiency and both accuracy and reaction times in the recognition of pragmatically similar structures for the two languages, i.e., the more a speaker is proficient in a language, the more corrected answers they produce and the lower the reaction times are. Specifically, the authors concluded that a consistent use of the language together with the consequent higher levels of proficiency correlates with an exponential reduction of the differences caused by the age of acquisition. Such results confirm the claim that L1 usage may prevent L1 attrition.

Other studies (e.g., Hopp, 2010), however, remind us that if the speaker is under pressure, and especially when dealing complex structures, their cognitive resources are undermined

to such extent that the performance of monolingual native speakers can result indiscernible from that of L2 learners. Schmid and colleagues (2012) infer such data that a similar process might be the accountable for phenomena traditionally ascribed to L1 attrition.

Baladzhaeva and Laufer (2018) are among those that supports the viewpoint according to which L1 attrition is a consequence of the reduced use of the speakers' first language and an increased interference of their second language – the latter being more used and, thus, more dominant. However, according to the results of their experiments, language use is not a compulsory element in L1 attrition. More precisely, Baladzhaeva and Laufer (2018) and Laufer and Baladzhaeva (2015) reported results from studies on Russian-Hebrew bilinguals and Russian monolinguals living in Israel and found that the latter can experience attrition to the same degree as the former, as they both show modifications in their L1. Crucially, it stands to reason that monolinguals cannot have known Hebrew and that it should not have influenced in any way their performance. The data of both studies, however, provided very similar results for the two immigrant groups. The hypothesis formulated to account for such results highlighted the presence of ‘second-hand attrition’: “they picked up the incorrect collocations from the speech of bilinguals, not knowing that these collocations were modeled on Hebrew” (Baladzhaeva & Laufer, 2018: 124). Under these circumstances, they suggested that a high influence is held by the inadequacy of their metalinguistic awareness. Despite the fact that almost all the participants are highly-educated, bilinguals generally possess proper metalinguistic awareness which, instead, is not displayed by monolinguals. Such awareness allows them to distinguish what is correct or incorrect and what is a modification on the basis of the other language (e.g.: Jessner, 1999).

A reference to the importance of the metalinguistic awareness is made also in the study by Ribes and Llanes (2015), that regard L1 attrition from a sociolinguistic point of view. The results seem to raise questions about the importance of the metalinguistic knowledge in the sense that creates the phenomenon of acculturation in the attriters, having as final result greater influence over L1 attrition itself.

In sequential bilinguals, it is moreover crucial to mention the fact that there is a strong correlation between the development of the language competence and the age of onset of

the second language acquisition. This is particularly true in the early stages, and slowly decreases the extent of effect with the increase of L2 development (Meisel, 2008). It is however necessary to discern the age of onset of acquisition of the two languages in a bilingual from the age of the eventual loss of consistent input that might characterize the speakers' life experience, since their effects can be different (Flores et al., 2015).

#### **1.4 L1 attrition: language loss and forgetting or rather incomplete acquisition?**

As mentioned earlier, several studies define L1 attrition as the loss of the native language (e.g., Schmid et al., 2012; Grosjean & Li, 2013). The concept of loss implies the fact that something is acquired and later becomes no longer accessible. Seliger (1996: 606) defines it as “the temporary or permanent loss of language ability as reflected in a speaker’s performance or in his/her ability to make grammaticality judgments that would be consistent with native speaker monolinguals at the same age and stage of language development”.

In this vein, Polinsky (1997) refers to the attriters as “forgetters”. Polinsky’s study aimed at analyzing the speech of Russian-American bilinguals and at observing whether there was a correlation between the loss of morphosyntactic features and the loss of lexical elements of their L1. The results from the production analysis of the speakers showed a considerably low amount of morphosyntactic items that are obligatory, highly frequent and early acquired. As a consequence, Polinsky was brought to conclude that attriters are speakers “who, depending on the level of attrition, may lose the ability to produce the language” (2007: 402). This study explicitly challenges the concepts of “incomplete acquisition” and of “lacking competence in a linguistic system” (2007: 401), inevitably reinforcing the category of forgetters.

This concept was brought further by Montrul (2004a) in a study on the interpretative properties of past tenses and their contrast in Spanish. The two experimental groups, one of advanced L2 adult learners and one of simultaneous and early sequential Spanish adult heritage speakers, demonstrated a standard competence in discriminating the Spanish past tenses, but showed low performances in the production of semantic traits of functional categories. The complication of having, in this case, a reliable language history for the

participants, typical of the heritage speakers, was considered attributable of the difference in the results with respect to the monolingual overall performance and as support of the existence of incomplete acquisition as a sort of sub-phenomenon of language attrition.

Köpke (2004), De Bot (2001), and Hulsen (2000) are just some of the scholars that came to the conclusion that ‘language loss’ is the most adequate label to define the phenomenon of attrition. They also specified the fact that the term was either to be considered as neutral or negative, as the change itself is negative.

Hulsen (2000), in particular, conducted a study on Dutch speakers in New Zealand. The results reported that, despite the large number of participants, the percentage of attrition on their native language was unexpectedly marginal. The data showed more subtle changes in their first language and Hulsen further isolates another type of changes, defined as ‘language shift’. This is the “gradually decreasing use of the L1” (Hulsen, 2000: 159), and according to her, language shift and language attrition are processes that must be regarded as components of language loss.

If we consider, however, the language acquired and later lost, it is relevant to acknowledge another possible interpretation, i.e., decay. Hutz (2004) analyzed corpora of German letters, written by emigrants to the USA in six different periods. From the observation of the material, it was clear that lexicon was the part of language most affected by language attrition, affecting in a more moderate way structures pertaining to morphosyntax. According to the researcher, this was because lexicon is on a more superficial level and therefore is “more susceptible to decay” (Hutz, 2004: 203). A special mention, thanks to the somewhat longitudinal study, was the annotation that the results showed how attrition appeared in a remarkable amount during the first 10 to 15 years under analysis. The first years of their emigration were not available in letters and could therefore not be examined, neglecting a relevant number of years.

Decay is strictly correlated to the lack of language use, especially throughout extensive period of times, like in the case of the participants of Hutz’s study (2004). This seems, however, to be particularly relevant with respect to lexicon due to its dependence on neurological bases. Morphosyntactic structures, on the contrary, are less prone to decay, (see Ecke, 2004 for a review).

It seems clear, despite the different definitions – ‘loss’, ‘forgetting’, ‘decay’- that L1 attrition consists in a difficulty in accessing and retrieving information about one’s L1. This, however, does not entirely affect the competence – psycholinguistics studies demonstrated that it is a partial phenomenon. Forster’s (1992) model proposal, built on purpose to illustrate lexical access, supported the partiality of the loss (inaccessibility) of linguistic information, by reason of their location at the ‘bottom of the bin’. This position does not imply that the features are no longer available, but simply that they require more time and more effort to be accessed. This view gives to understand that the positioning of the items is being constantly adjusted depending on the use of the items themselves. The loss is explained as rather a difficulty of retrieval by psycholinguistic approaches (e.g., Hakuta & D’Andrea, 1992). In the same vein, Burke (1999) claimed that this tendency is heightened to a greater extent in older adults, who experienced an increase in the retrieval times resulting from lack of activation because of both biological matters and infrequent use.

### **1.5 Is L1 attrition temporary?**

The above-mentioned psycholinguistic approaches succeed in explaining the differences of access and the processes that the linguistic information might undergo in language modifications. We know that neurological connections are in constant development and therefore changes can happen throughout the entire lifespan of a speaker, but to what degree do these changes concern L1 attrition?

In particular, after the appearance of L1 attrition, it is reasonable to question whether it will permanently characterize an attriter. Some studies, in fact, demonstrated how syntax is a quite stable component of the linguistic competence whereas other components of the linguistic competence, such as lexicon, are sensitive and are more affected by changes in the course of time. As a result, the reachable conclusion is that morphosyntactic features are more easily retained than lexical ones (Montrul, 2005; Sorace, 2000).

As mentioned in section 1.2, a bilingual is characterized by moments of stability alternated with instability, along with transitional periods (Grosjean and Li, 2013). It might seem that attrition is an extremely durable phenomenon, even if longitudinal studies are not numerous. However, the analysis of letters written over several decades

letters (Hutz, 2004) seems to provide evidence for long-term attrition, in this case over a period of around 40 years.

L1 attrition, regardless of its durability, is, as a matter of fact, a somewhat reversible process. The German attriters in Hutz (2004) displayed a decline of attrition after a temporary increase in the contact with their first language, which restabilized their native language system. Similarly, Köpke and Genevska-Hanke (2018) investigated the rate of overt and null pronominal subjects in a Bulgarian-German speakers in three recording sessions, conducted in 2011, 2012, and 2017, respectively. Each year, two sessions were recorded: first, the researchers recorded and analyzed the speech of the participants in German. Then, a second session took place after that the speakers spent two weeks in the native-country, namely Bulgaria. For each year, the second session recorded after a short period of extensive re-exposure to L1- led to a decrease in the usage of overt pronominal subjects, suggesting that the speakers were performing more like Bulgarian monolinguals and that their L1 attrition level was diminishing.

Analogous results, supporting the temporariness of L1 attrition, were found in Chamorro and colleagues' study (2016). The two experimental groups – one consisting of native Spanish speakers and the other of re-exposed native Spanish speakers were tested and while they performed similarly in an offline judgment task, their results differ in the eye-tracking task. Data showed that for this task, the re-exposed group produced an overall outcome that was comparable to the monolingual (control) group, and not to the attriters. These differences in the two bilingual groups are therefore evidence of the fact that an attriter does not perform in the same way, that it is in some way reversible and that attrition is strictly related to the exposure.

Gargiulo and van der Weijer (2020) investigated the same topic and issue with anaphoras in Swedish-Italian attriters, who were re-exposed to Italian. In their case, no relevant difference was reported between the late sequential re-exposed bilinguals and the monolingual group in regards to the result of the anaphora.

## 1.6 Influence of age of acquisition and length of residence on L1 attrition

A bilingual speaker is challenged by the two languages throughout their entire lifespan. In the several studies conducted in the past decades, a relevant role in L1 attrition seems to be played by the number of years spent in the L2-speaking country. The interaction of the length of residence and the acquisition of the non-native language within the critical period<sup>2</sup> has been attested in the case of sequential bilinguals.

Karayayla and Schmid (2019) investigated the changes in the accent of a group of Turkish speakers who moved to the United Kingdom between the age of 7 and 34. The results seemed to highlight an effect of the onset age of acquisition. The study showed, as a matter of fact, a correlation between that the participants' onset age of acquisition and different degrees of attrition. The correlation, however, was no longer present for the participants whose onset age of acquisition was over 13. Such results were interpreted as the effect of possessing a rather stable native language, more resistant to L2 influence once the critical period is reached.

The influence of a second language on the native one implies the acquisition of L2 grammar to some extent. A study by Meulman and colleagues (2015) investigated the effects of the onset age of acquisition on L2 grammar using the ERP signal. The participants were 66 Slavic learners of German and 29 German native speakers, that proved that native-like processing is possible for late learners thanks to the presence of the regular production and similarity in production to the control group. The investigation of morphosyntactic aspects, namely non-finite verbs and grammatical gender agreement, determined that according to the age of acquisition, the processing strategy varied along with target responses, consistently with the view on the bilingual language functioning provided by several studies (§1.2).

Moreover, Bergmann and colleagues (2019) analyzed a group of German native speakers and a group of English-German attriters who grew up as monolingual natives before emigrating to a L2 country. An ERP experiment was conducted on German, focusing on verb form combinations and determiner-noun combination with grammatical gender.

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<sup>2</sup> Critical Period: The first few years of life, usually limited by the beginning of puberty, constitute a period in which language develops successfully. Penfield & Roberts (1959)

English-German attriters reached native-like results, that were interpreted as evidence of the stability of their first language system. In particular, despite the fact that the morphosyntactic feature is not the most variable aspect of language (§ 1.2), the data demonstrated the same amount of violation for bilinguals and monolinguals. The onset age of acquisition, after the age of puberty, seems thus to have a relevant impact of the level of attrition a speaker can experience, preventing its emergency.

Another study worth of attention is the investigation by Schmid (2012), that focused on international adoptees during the Holocaust. The 54 participants were among the thousands German-Jewish children, beyond the critical period, that were forced to escape to English-speaking countries. Contrary to what might be assumed, the data collected from the participants that experienced a complete reduction and rejection of the German language, did not demonstrate either disadvantages or advantages in the usage of L1 and L2, but rather slight differences in access and activation of their native morphologic system. In this case, there was an effect of the onset age of acquisition, but there was no influence of the attitudinal involvement in the two linguistic systems (more detail on linguistic attitudes and motivation will be provided in section 1.7).

All these studies seem to prove that the onset age of acquisition as well as critical period play a fundamental role in the stability of the linguistic system of the native language. The importance is so relevant that the age of acquisition has been defined as the only external factor that is indisputably and straight-forwardly related to language attrition (Schmid et al., 2012).

The age of acquisition, despite all the data we have overviewed so far, can be reconsidered in some aspects. Twenty French-English bilinguals were studied in an experiment with MRI; participants were divided into two groups – 10 were categorized as early bilinguals, 10 as late bilinguals (Köpke et al., 2021). The results showed that there was no asymmetry between the two groups in the switching between languages. All participants therefore demonstrated a complete and functioning acquisition of the linguistic control, which in the study was representative of the effect of age of acquisition. In this case, the conclusions were that the age of acquisition is not significant in all the aspects of a late bilingual speaker language system.



However, further proof of the relevance of the onset age of acquisition comes from a peculiar subgroup of attriters and bilingual speakers, i.e., heritage speakers. They are speakers that grow up in a bilingual (or multilingual) household in which usually a minority language is spoken (e.g., Weise et al., 2022; Montrul & Polinsky, 2011). This language is their first language, but it is not the language dominant in the society and therefore an education in this language is not available. Despite the low L1 proficiency they usually reach, caused by the lack of linguistic context, use and exposure, their performance in linguistic tests was better than that late L2 learners (Montrul, 2005). This is possible thanks to the crucial role played by the onset age of acquisition: since morphosyntactic and semantic elements develop within the critical period, heritage speakers' performance is assimilable to a native-like one.

Heritage speakers were also the subjects of the investigation conducted by Jasso (2022) on subjunctive production in English-Spanish speakers. Namely, the participants were second- and third-generation speakers of Spanish between the age of 8 and 13 grown up in domestic contexts of Spanish-speaking parents and raised in Latin American countries and only a small percentage of them (less than 8%) in the United States. Contrary to what was predicted, the analysis on their subjunctive production did not show any effects of critical period nor their language exposure. The interaction between the parents' and children's performances in the acceptability judgment task and the former rejected ungrammatical sentences more precisely than their kids.

We conclude the overview of the investigated possible causes of first-language attrition with the theory posited by Bylund (2019: 286-287), composed by three principles:

**Principle 1:** reduced attrition susceptibility in adults does not imply that the L1 proficiency of this group is impervious to attrition.

**Principle 2:** Heightened attrition susceptibility in children does not imply that this group is bound to undergo attrition.

**Principle 3:** Age effects in attrition entail that children and adults, *ceteris paribus*, differ in the degree to which they attrite.'

In the third principle, Bylund specifies that the differences in the results and in the comparisons between before and after critical period bilinguals are due to the fact that the

diverse linguistic aspects are affected in discrepant ways. This actually collocates the principle along the lines of previous research (e.g.: Sorace, 2011) claiming that some aspects of the linguistic competence are more stable than others.

His three principles cover different research issues involving the age effects on language attrition in general. Such principles have the explicit aim of providing some guide for future studies and clarifying some of the doubts that might arise when investigating age-related factors.

A remarkable number of studies confirmed the importance of the onset age of acquisition, with few exceptions. It is the case, for instance, of the study conducted by De Carli and colleagues (2015), where the quantity of the usage of the two languages overcame the influence on the levels of bilingual proficiency registered, arising further questions on how these two aspects of the bilingual speech might actually affect the occurrence of other phenomena such as L1 attrition.

### **1.7 Motivational and attitudinal aspects**

Another fundamental factor of the language is the one involving the motivation and the attitudes a speaker has in regard to each language separately and concurrently. Such aspect is so relevant that can be the leading cause in the dismissal of a language in individuals (Pavlenko and Lantolf, 2001). In this vein, Ecke (2004) mentioned the attitudinal facet as one of the features that play a role in the restructuring and memory of an individual. Research in the psychologic field has shown over the past few decades that the more a language is positively perceived by the speaker, the more likely is the speaker to conserve and maintain such language. On the contrary, when a bilingual considers one of the two languages negatively, that language is more likely to be affected and reduced in usage, creating the requisites for its decay.

The vast majority of studies regarding such socio-psychological factors, i.e., motivation and linguistic attitudes, involve second language learners or bilinguals. It was indeed demonstrated that for the second languages, the learning experience can be strengthened and the learning outcome improved by a strongly positive attitude towards the L2-

speaking communities. In other words, a positive attitude led to a higher proficiency than a negative attitude (Gardner, 2010).

The effect of linguistic attitudes is even more evident in populations such as adoptees. Several studies have shown an initial – albeit short – period of resistance to the second, new language and a later relevant decline of the first native language that corresponds to newly-developed positive attitudes towards the L2 (e.g.: Nicoladis & Grabois, 2002; Isurin, 2000).

In Au and colleagues (2002), eleven heritage speakers of English, who grew up in households where Spanish was spoken for the first 6 years of life maximum and that later in their life started taking Spanish classes, demonstrated that even a limited speaking exposure could be influential to a better pronunciation. The interesting aspect of the study seemed to point out the relevance of the role that cultural identity – along with exposure, even when limited – can play in the language development.

The importance of education is highlighted in Montrul (2005) it creates an additional motivation, since an unbalanced dedication and usage of a language during the schooling years can have substantial influence over the years. The effects are indeed long-lasting even on the language that the speakers are less exposed to, which would otherwise become unsteady and fragile once the critical period is reached and the individuals are in their adulthood.

### **1.8 Evaluating bilingualism: the Bilingual Language Profile**

After having overviewed the characteristics of the linguistic system of bilingual speakers, its changes and the factors that enhance the occurrence of L1 attrition, we can now turn to a method of assessing the dominance of a bilingual individual.

One instrument to evaluate the language dominance of a bilingual speaker is the Bilingual Language Profile (BLP)<sup>3</sup> questionnaire. The BLP can also be used for self-assessment. It

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<sup>3</sup> COERLL (Centre of Open Resources and Language Learning) at University of Texas at Austin (Birdsong et al., 2012).

BLP material: <https://sites.la.utexas.edu/bilingual/>

is considered to be one of the most common measures of language dominance (Solis Barroso & Stefanich, 2019). Its structure is designed to place the individuals on a dominance continuum, considering all the factors involved in a multilingual speaker. The design is based on the steps outlined by Dornyei and Taguchi (2009) and fully developed in Gertken and colleagues (2014). It has been used to assess the language dominance in several studies aimed at investigating morphosyntactic, phonological, semantic elements, etc.

The BLP was used, for instance, for the assessment of Malay-English bilingual students and analyzed in correlation to their vocabulary size (Rahman et al., 2018). According to the research, the English dominance score was positively and the Malay negatively correlated to the English vocabulary size of the participants. This correlation was considered as evidence of the reliability and accuracy of this questionnaire.

The BLP has also been used in bidialectalism studies, and modifications to the section of proficiency were necessary. Poarch et al. (2019) investigated Swabian-German speakers, and since there is no formal education in Swabian, the questions regarding reading and writing in Swabian would have received low rates. For this reason, the questions 14b and 15b, regarding Swabian and their equivalent regarding German questions (14a and 15a) were removed from the task. The equivalent adjustment was applied in another bidialectal study of Ferrarese-Italian speakers in Procentese (2021).

## **1.9 Summary**

L1 attrition is a phenomenon that attests the changes in the L1 of the speakers due to the implementation of L2 elements. The definitions available in the existing literature are varied, and some of them interpret the phenomenon as “loss” and “forgetting”, providing a negative point of view. This interpretation, however, is consistent with the highly adaptability that characterizes the human speech. Here, we support the interpretation of L1 attrition as a modification of the first language of the speakers. The modification can be definitive or temporary: if the speakers are intensively re-exposed to the L1, the L1 attrition changes diminishing.

In this chapter, we overviewed that there is not a unique factor that can predict the appearance of L1 attrition, but it is rather a combination of elements: (i) L2 dominance;

(ii) low L1 use; (iii) early onset age of acquisition; (iv) long length of residence in an L2-speaking country; (v) negative attitude towards the L1; (vi) positive attitude for the L2. We focused on the first factor (i) in the last section to address one of the assessing materials that can be used.

## CHAPTER 2

### The subjunctive mood and temporal clauses in Italian and Spanish.

In this chapter, we focus on the subjunctive mood. As seen in the previous chapter, syntax is the less prone to show language attrition with respect to lexicon, for instance. In particular, the morphosyntax is a fundamental element that expresses information about the verb phrase in every language. The discussion about moods and tenses used in each language and their usage is of great interest for linguists due to the fact that they bear significant information for the communication. The mood, in fact, constitutes the grammatical expression of the modality, and establishes the probability, necessity and obligation of the content from the speaker's point of view (Comrie, 1976). The focus in this chapter is on the subjunctive mood (section 2.1) and its uses in the languages under study (section 2.1.2), in order to provide a thoroughly framework with the information needed for the experiment. Section 2.2 focuses on the alternation between subjunctive and indicative. Section 2.3 concentrates on temporal clauses, while section 2.4 explores the option of using the present indicative to express future, endowing all information necessary to contextualize the study in the chapter 3.

#### 2.1 The subjunctive mood

##### 2.1.1 The structure

The subjunctive mood is one of the finite moods that can be found in Romance languages. More precisely, in Italian grammar, we find the following tenses: *presente* 'present'; *imperfetto* 'present perfect'; *passato* 'past simple'; *trapassato* 'past simple'. In Spanish, the subjunctive consists of these tenses: *presente* 'present simple'; *imperfect* 'present perfect'; *perfecto* 'past simple'; *pluscuamperfecto* 'past perfect'. Examples of each tense are in (1).

1	Italian	Spanish
a.	<p>Presente: Può essere che lei <b>riesca</b> a liberarsi.</p> <p>‘It is possible that she manages-PRES.SUBJ to be free.’</p> <p>‘It is possible that she manages to be free.’</p>	<p>Presente: Es posible que yo <b>llegue</b> con retraso.</p> <p>‘It is possible that I arrive-PRES.SUBJ late.’</p> <p>‘It is possible that I arrive late.’</p>
b.	<p>Imperfetto: <b>Fossi</b> matto!</p> <p>‘*I be-IMPERF.SUBJ crazy!’</p> <p>‘What am I, crazy?’</p>	<p>Imperfetto: Nos pidió que <b>resolviéramos</b> el problema.</p> <p>‘He/she asked us to solve-PAST.SUBJ the problem.’</p> <p>‘He/she asked us to solve the problem.’</p>
c.	<p>Passato: Mi spiace che non l’<b>abbiate visto</b>!</p> <p>‘I am sorry you have not seen-PRES.PERF.SUBJ him.’</p> <p>‘I am sorry you have not seen him.’</p>	<p>Perfecto: No creo que <b>hayan llegado</b>.</p> <p>‘I do not think they have arrived-PRES.PERF.SUBJ.’</p> <p>‘I do not think they have arrived.’</p>
d.	<p>Trapassato: Mi sarebbe piaciuto tu <b>fossi arrivato</b> in tempo.</p> <p>‘I would have liked you to be-PASTPERF.SUBJ on time.’</p> <p>‘I would have liked you to be on time.’</p>	<p>Pluscuamperfecto: Habría venido antes si <b>hubiera podido</b>.</p> <p>‘I would have come earlier if I could have-PAST.PERF.SUBJ.’</p> <p>‘I would have come earlier if I could have.’</p>

In Spanish grammars, however, two more tenses can be found: *futuro simple* (2) and *futuro perfecto* (3).

2. El que matare el Rey será castigado.  
 ‘The one who kills-FUT.SIMP.SUBJ the King will be punished.’  
 ‘The one who kills the King will be punished.’
3. Si para las 02:00 no hubiere llegado, llamaremos a la policía.  
 ‘If by 2 a.m. you have not arrived – FUT.PERF.SUBJ, we will call the police.’  
 ‘If by 2 a.m. you have not arrived, we will call the police.’

These tenses, however, are only used in the administrative and legal language and in Caribbean Spanish, as the present tense has been substituting it in Standard Spanish (e.g., Veiga, 1989). Since the focus of the present study is the use of the present subjunctive, they will not be considered further.

Present subjunctive forms are built in a similar way in Spanish and Italian.

In both languages, the construction consists in removing the ending of the infinitive form and adding the suffixes for the subjunctive, that usually contain a vowel change: for the first conjugation (SP: *-ar*, IT: *-are*) the vowel shifts from *a* to *-e* in Spanish and to *-i* in Italian, while the second and third conjugations (SP: *-er* and *-ir*, IT: *-ere* and *-ire*) witness the vowel changing from *-i* to *-a*.

Another characteristic that present subjunctive forms have in common in the two languages is the (total or partial) identity of the singular persons. In Italian, all the singular persons are identical, as can be seen in (4). In Spanish the first and the third singular persons cannot be differentiated (4 and 5) whereas the second singular person displays a different inflectional ending, i.e., through the consonant *-s*:

4.	Person	Italian	Spanish
	1 <sup>st</sup> singular	Chiami	Llame
	2 <sup>nd</sup> singular	Chiami	Llames
	3 <sup>rd</sup> singular	Chiami	Llame



In both languages, the strategy adopted to disambiguate the different persons is the explicit syntactic realization of the subject, even when it is pronominal. It is worth mentioning that this is not a typical feature of Italian nor Spanish, as both are pro-drop languages<sup>4</sup>, but it helps with the disambiguation of the person:

- (5) a. Non li stupisce che chiami così tardi.  
No les sorprende que llames tan tarde.  
'It does not surprise them that I/you/he/she/it call-SUBJ them so late.'  
'It does not surprise them that I/you/he/she/it call them so late.'
- b. Non li stupisce che io chiami così tardi.  
No les sorprende que yo llame tan tarde.  
'It does not surprise them that I call-SUBJ them so late.'  
'It does not surprise them that I call them so late.'
- c. Non li stupisce che tu chiami così tardi.  
No les sorprende que tú llames tan tarde.  
'It does not surprise them that you call-SUBJ them so late.'  
'It does not surprise them that you call them so late.'
- d. Non li stupisce che lui/lei chiami così tardi.  
No les sorprende que él / ella llame tan tarde.  
'It does not surprise them that he/she calls-SUBJ them so late.'  
'It does not surprise them that he/she calls them so late.'

Another overlap of forms involves the first plural person present subjunctive. The same forms can, in fact, appear in the present simple indicative tense (6) and the present subjunctive form (7). This occurs only in Italian and not in Spanish.

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<sup>4</sup> Pro-drop languages: Languages that allow the omission of subject pronouns. Rizzi (1982).

6. Noi andiamo a scuola tardi.  
Vamos a la escuela tarde.  
'We go-PRES.IND to school late.'  
'We go to school late.'
7. Non vuole che andiamo a scuola tardi.  
No quiere que vayamos a la escuela tarde.  
'He/she does not want that we go-PRES.SUBJ to school late.'  
'He/she does not want that we go to school late.'

### 2.1.2 The contexts of use of subjunctive

The contexts of occurrence of the subjunctive mood are similar in Italian and Spanish. Its frequency of use is limited for main clauses (Trifone & Palermo, 2000). It can be used in both matrix and embedded clauses, albeit the former context is marginal in spontaneous speech. In table 1 the values that require and allow the use of the subjunctive in main clauses are overviewed.

Value	Italian	Spanish
Exhortative	Nessuno <b>osi</b> contraddirmi! 'Nobody dares-SUBJ to contradict me!' 'Nobody dares to contradict me!'	Que nadie <b>hable</b> ! 'Nobody must speak-SUBJ!' 'Nobody must speak!'
Dubitative	Che <b>sia</b> matto? 'What if he is-SUBJ mad?' 'What if he is mad?'	Tal vez ya lo <b>sepas</b> .
Optative	<b>Potessi</b> almeno vederlo! 'If only I could-SUBJ see him!' 'If only I could see him!'	Ojalá <b>pudiera</b> verle! 'I wish I could-SUBJ see him!'

Table 1: values for the subjunctive use in Italian and Spanish in matrix clauses.

The subjunctive mood is mostly employed in embedded clauses in Italian and Spanish. There are different semantic criteria that determine their uses in the varied clauses (Blake, 1983). We can find them in a large selection of subordinates, such as comparative (8),

relative (9), purpose (10), hypothetical (11), concessive (12) and several others, (e.g., Kinder & Savini, 2004).

8. Era meno difficile di quanto pensassi.  
Era menos difícil de lo que creyera.  
'It was easier than I thought-SUBJ.'  
'It was easier than I thought.'
9. Cerco qualcuno che parli spagnolo.  
Busco alguien que hable español.  
'I am looking for someone who speaks-SUBJ Spanish.'  
'I am looking for someone who speaks Spanish.'
10. Lo hanno aiutato in modo che possa finire da solo gli esercizi.  
Le ayudaron para que pudiera terminar solo los ejercicios.  
'They helped him so that he can-SUBJ finish the exercises on his own.'  
'They helped him so that he can finish the exercises on his own.'
11. Se ci fosse, risponderebbe.  
Si estuviera, contestaría.  
'If he/she was-SUBJ there, she would answer.'  
'If he/she was there, she would answer.'
12. Benché la scadenza sia già passata, accetteremo la Sua domanda.  
A pesar de que la fecha de entrega haya ya pasado, aceptaremos Su petición.  
'Although the deadline has-SUBJ already passed, we will accept your application.'  
'Although the deadline has already passed, we will accept your application.'

In several cases, the lexical semantics of the main predicate selects the subjunctive mood in both languages to express doubt and in presence of volition and epistemic verbs (13, 14):

13. Command or volition: *Voglio che venga.*  
*Quiero che venga.*  
 ‘I want her/him to come-SUBJ.’  
 ‘I want her/him to come.’
14. Doubt: *Dubito che sia onesto.*  
*Dudo que sea honesto.*  
 ‘I doubt that he is-SUBJ honest.’  
 ‘I doubt that he is honest.’

Verbs of belief are used in different ways: while Italian requires the subjunctive mood, Spanish only allows the indicative:

15. *Credo che vadano alla festa.*  
 ‘I think they go-SUBJ to the party.’  
 ‘I think they are going to the party.’
16. *Creo que van a la fiesta.*  
 ‘I think they go-IND to the party.’  
 ‘I think they are going to the party.’

Studies on Romance languages have shown that the distribution of the subjunctive is different from the Latin model and is dissimilar for each language (e.g.: De Mulder & Lamiroy, 2012). The comparison between Portuguese, French, Italian, and Spanish showed that Spanish contains the least number of subjunctive verbs (37%), while Italian is, along with French, the language that conserve its usage (correspectively, 71% and 76%) in the corpora under observation (fig. 4, Poplack et al., 2018: 229).

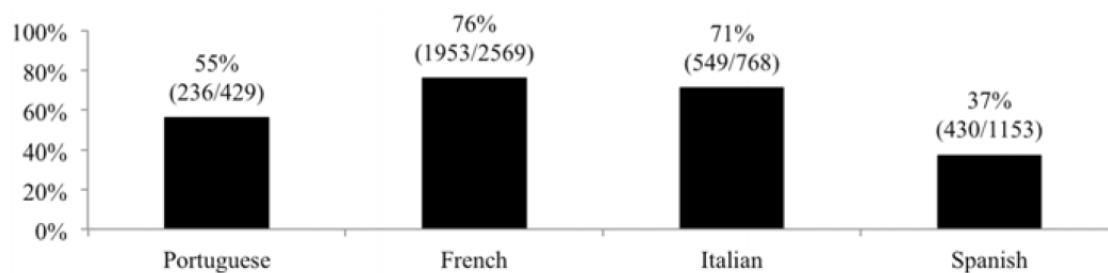


Figure 3: Poplack et al. 2018, 229: Rate of subjunctive by language

## 2.2 Indicative-Subjunctive alternation in Spanish and Italian

### 2.2.1 Alternation in monolingual population

The alternation between the use of indicative and subjunctive is acknowledged by several studies (e.g., Giannakidou & Mari, 2015; Portner & Rubinstein, 2012) that claim that the mood variability is related to the speaker's intent of communication.

For instance, standard Spanish maintains an alternation between the two moods in restrictive relative clauses. While the indicative implies that the referent exists, as in (17a), the subjunctive asserts the fact that the referent might not exist, as in (17b) (Montrul, 2004). A similar difference is present in Italian, with the adjunctive required agreement with the determiner: the indicative (17a) signals that the referent exist; the implementation of a subjunctive verb (17b) represent that the referent might not exist.

17. a. Busco a alguien que habla inglés.  
 Cerco la/una persona che parla inglese.  
 'I am looking for someone who speaks-IND. English.'  
 'I am looking for someone who speaks English.'
- b. Busco a alguien que hable inglés.  
 Cerco una persona che parli inglese.  
 'I am looking for someone who speaks-SUBJ. English.'  
 'I am looking for someone who speaks English.'

The alternation of indicative and subjunctive is partly determined by the register of the speech and the social identity of the speaker. More precisely, highly-educated speakers produce more subjunctive verbs than low-educated subjects (Digesto, 2021). The subjunctive is also favored by formal contexts of speech. Spoken language, that is usually characterized by non-standard elements, favors the use of the indicative mood (for Italian, Giorgi & Pianesi, 2004) even in forms where prescriptive grammars request a subjunctive form (18a, 18b).

18. a. Credo che sia importante seguire le regole.  
'I think that it is-SUBJ important to follow the rules.'  
'I think that is is important to follow the rules.'
- b. # Credo che è importante seguire le regole.  
'I think that it is-IND important to follow the rules.'  
'I think that it is important to follow the rules.'

Although the subjunctive is still productive in both languages (e.g., for Italian: Santulli, 2009; for Italian and Spanish: Poplack et al., 2018), there is an increasing tendency of favoring the use of indicative verbs in cases where the subjunctive is prescriptively required (Digesto, 2021). This occurs especially in the clauses selected by verbs expressing opinion, volition and the speaker's state of mind (Digesto, 2021; Poplack et al., 2018). The reason for such modification seems to rely on the possibility of alternating. Several scholars claim that in the cases where there is optionality, the subjunctive is decreasing in favor of the indicative (e.g.: Spanish: Silva-Corvalán, 1994; Italian: Della Valle and Patota, 2011).

### **2.2.2 Alternation in bilingual population**

The alternation between indicative and subjunctive moods in bilingual speakers is the topic of very few studies.

Borgonovo and colleagues (2015) investigated Spanish monolinguals and English-speaking Spanish learners, (intermediate and advanced level), and showed that, despite knowing how and when to use the subjunctive and the indicative mood, the English-speaking participants were often not able to reject ungrammatical subjunctive. In

particular, the study focused on a special type of subordinates – relative clauses. The results shows that the indicative is considered as a default marker and that the subjunctive inflection, also for the non-native speakers, is strongly associated to non-specificity.

Furthermore, some studies on Spanish heritage speakers, provided evidence for the diminishing overall production of subjunctive mood, particularly in the cases where there is optionality, in line with the results from the monolingual populations (§2.2.1). Many of the studies regarding this specific category of speakers involved the combination of Spanish-English (e.g.: Montrul, 2009; Montrul and Perpiñán, 2011), but also Spanish-Dutch (van Osch and Sleeman, 2018).

### 2.3 Temporal clauses

Temporal clauses are subordinate adjunct clauses that define the relationship between the temporal context of the event in the clause and the one in the matrix (e.g., Puşcaşu et al., 2006; Giusti, 2022). Such relationship can be expressed by the values of anteriority (19), contemporaneity (20), or posteriority (21).

- |                     |   |
|---------------------|---|
| 19. anteriority     | Dopo aver riposato, ha fatto i compiti.<br>Después de haber descansado, hizo los deberes.<br>After taking a nap, he/she did his/her homework. |
| 20. contemporaneity | Quando Mario tornò, era tardi.<br>Cuando Mario regresó, era tarde.<br>When Mario came back home, it was late.                                 |
| 21. posteriority    | Prima che sia tardi, preparati.<br>Antes de que sea tarde, prepárate.<br>Before it gets late, get ready.                                      |

The temporal clauses can be introduced by different complementizers, as shown in the examples (22, 23): *prima che* ‘before that’, *dopo che* ‘after that’, *quando* ‘when’, *non appena* ‘as soon as’, *fino a che* ‘until’, *mentre* ‘while’. In Spanish, an analogous set of

complementizers are used: *quando* ‘when’, *mientras* ‘while’, *en cuanto* ‘as soon as’, *después de* ‘after that’, *antes de* ‘before that’, *hasta* ‘until’ etc.

22. Mentre guardavano la televisione, hanno ricevuto la telefonata.  
Mientras miraban la televisión, recibieron la llamada.  
While they were watching the TV, they received the call.
23. Fino a quando non sarà completato, non potremo andare a casa.  
Hasta cuando no esté completado, no podremos ir a casa.  
Until it is completed, we will not be able to go home.

In Italian and Spanish, such clauses can be expressed with finite verb forms (24), or with non-finite verb forms (25). The latter option is typical of formal registers and written language (Kinder & Savini, 2004):

24. Mi sono addormentato mentre guardavo la televisione.  
Me quedé dormido mientras miraba la televisión.  
‘I fell asleep while I was watching the television.’
25. Mi sono addormentato guardando la televisione.  
Me quedé dormido mirando la televisión.  
‘I fell asleep watching the television.’

### 2.3.1 Italian temporal clauses

In this subsection we overview the temporal clauses in Italian and their mood distribution according to their temporal expression, in order to provide the information needed for the study.

The most frequent complementizer to express contemporaneity between the event in the clause and the one in the matrix is *quando* ‘when’ (Giusti, 2022). The only mood allowed in this case is the indicative in its different tenses, and the use of the subjunctive is not expected. Some examples are provided in (26).



26. a. Quando mangio, sono felice.  
When I eat-PRES.IND, I am happy.  
When I eat, I am happy.
- b. Quando mangiavo, ero felice.  
When I ate-IMPERF.IND., I was happy.  
When I ate, I was happy.
- c. \*Quando io mangi, sono felice.  
When I eat-PRES.SUBJ., I am happy.  
When I eat, I am happy.

The clauses mandatorily contain a subjunctive mood verb, selected by the complementizer *prima che*, to express posteriority. If the verb of the main clause is in the present or future, the temporal is in the present subjunctive (27); if with the main clause verb is expressed in the past tense, the temporal selects the imperfect subjunctive (28).

27. Prima che tu parta, stampo i biglietti del treno.  
'Before you leave- PRES. SUBJ., I'll print the train tickets.'  
'Before you leave, I'll print the train tickets.'
28. Prima che partisse, ho stampato i biglietti del treno.  
'Before he/she left- PAST SUBJ., I had printed the train tickets.'  
'Before he/she left, I had printed the train tickets.'

Furthermore, temporal clauses introduced by *dopo che* expressing anteriority use an indicative verb in the same tense as the main clause or a perfect tense:

29. Dopo che avrà mangiato, pulirà il tavolo.  
'After he/she has eaten – FUT. PERF.IND., he/she will clean- the table.'  
'After he/she has eaten, he/she will clean the table.'
30. Dopo che ha mangiato, pulisce il tavolo.  
'After she has eaten – PRES. PERF. IND., he/she cleans the table.'  
'After she has eaten, he/she cleans the table.'

The subjunctive is allowed in this type of dependent clauses only when it contains a hypothetical future (e.g.: La Fauci, 2009; Trifone & Palermo, 2000). In this case, the subordinate possesses both a temporal and a conditional value, and can consequently both mean “when there will be the chance” and “if there will be the chance” (31).

31. Si licenzierà quando se ne presenti l’occasione.  
 ‘He/She will resign-FUT when there will be-SUBJ the chance.’  
 ‘He/She will resign when there will be the chance.’

We can also observe in the C-ORAL-ROM (Cresti & Moneglia, 2005) that in the spoken language, only a single temporal clause (32) containing a non-standard subjunctive was uttered in a variation of Italian (namely, from Tuscany). No interpretation of this occurrence was provided, but we might assume it expresses an hypothetical event of the subordinate introduced by ‘man mano’ (whose literal translation is ‘step by step’).

32. man mano crescano / gli alberi / si [/] si [/] si [/] si schiarisce sempre di più / la  
 [/] la [/] la fibra d’i’legno / capito [ifammn21]  
 ‘As the trees grow-PRES.SUBJ, the wooden fiber gets lighter and lighter, do  
 you get it?’  
 ‘As the trees grow, the wooden fiber gets lighter and lighter, do you get it?’

However, as seen before, the subjunctive mood does not possess a specific future tense and because of this, other tenses must be used to express this feature. The two languages adopt different strategies to solve such issue. In standard Italian, the temporal subordinate displays the future (simple or perfect) indicative (33).

33. Potrai alzarti quando avrai finito.  
 ‘You will be able to leave when you are done – FUT.PERF.’  
 ‘You will be able to leave when you are done.’

Differently from Spanish grammar (see section 2.3.2), in standard Italian the clause introduced by *quando* does not allow the subjunctive (34):

34. \* Andranno al cinema quando finiscano di lavorare.  
 ‘They will go to the cinema when they finish-SUBJ working.’  
 They will go to the cinema when they finish working.

### 2.3.2 Spanish temporal clauses

The Spanish temporal clauses possess similar characteristics to the Italian ones, introduced previously (§2.3.1).

Contemporaneity is expressed by the use of an indicative tense with a tense agreement to the matrix one (35, 36). No subjunctive verb is allowed in this case (37).

35. Cuando como, soy feliz.  
 ‘When I eat-PRES.IND, I am happy.’  
 ‘When I eat, I am happy.’
36. Cuando comía, yo era feliz.  
 ‘When I ate-IMP.IND., I was happy.’  
 When I ate, I was happy.
37. \*Cuando yo coma, yo soy feliz.  
 ‘When I eat-SUBJ., I am happy.’  
 ‘When I eat, I am happy.’

To express anteriority, Spanish uses the indicative mood for present or past meanings and in presence of present or past verbs in the matrix (past: 38, present: 39). In the case of future events, the subjunctive mood is required (40).

38. Después de que comió, limpió la mesa.  
 ‘After he/she ate-PAST.IND., he/she cleaned the table.’  
 ‘After he/she ate, he/she cleaned the table.’
39. Después de que come, limpia la mesa.  
 ‘After he/she eats-PRES.IND., he/she cleans the table.’  
 ‘After he/she eats, he/she cleans the table.’
40. Después de que coma, limpiará la mesa.  
 ‘After he/she eats-SUBJ, he/she will clean the table.’  
 ‘After he/she eats, he/she will clean the table.’

In the case of posteriority, *antes de que* ‘before that’ requires the subjunctive mood (43), and, unlike *después de que* ‘after that’, no indicative form is allowed (past: 41, present: 42).

41. \**Antes de que comió, limpió la mesa.*  
‘Before he/she ate-PAST.IND., he/she cleaned the table.’  
‘Before he/she ate, he/she cleaned the table.’
42. \**Antes de que come, limpia la mesa.*  
‘Before he/she eats-PRES.IND., he/she cleans the table.’  
‘Before he/she eats, he/she cleans the table.’
43. *Antes de que coma, limpia la mesa.*  
‘Before he/she eats-SUBJ, he/she cleans the table.’  
‘Before he/she eats, he/she cleans the table.’

In Spanish, differently from Italian, the future value can only be expressed with the subjunctive form, and no future indicative is grammatically possible:

44. \**Cuando llegaré, comeré una paella.*  
  
‘\* When I arrive-FUT, I eat-FUT a paella.’  
  
‘\* When I arrive, I will eat a paella.’
45. *Cuando llegue, comeré una paella.*  
  
‘When I arrive-SUBJ, I eat-FUT a paella.’  
  
‘When I arrive, I will eat a paella.’

It is worth mentioning that there is only one exception that allows a future indicative verb after *cuando* expressing a temporal clause, and this is used to produce direct and indirect questions (Carrera Diaz, 2004):

46.

¿Cuándo vendrás a verme?

‘When will you come-FUT visit me?’

‘When are you coming to visit me?’

47.

No sabemos cuándo vendrá a vernos.

‘We do not know-PRES when he/she come-FUT visit us.’

‘We do not know when he/she will come to visit us.’

#### 2.4 Present indicative to express the future

Italian and Spanish possess specific tenses (namely, *futuro semplice* and *futuro anteriore* in Italian, *futuro simple* and *futuro compuesto* in Spanish) to express future events in both matrix and subordinate. Despite this, grammarians assign to the present indicative the possibility of expressing the future (48, Italian: Vanelli & Salvi, 2004; Spanish: Carrera Díaz, 2004).

48.

Quando finisco, ti chiamo.

Cuando termino, te llamo.

When I finish-PRES.IND., I call you.

When I finish, I call you.

The traits that determine such variation are: (i) register; (ii) settledness<sup>5</sup>. The choice of the tense used seems to be determined by the register (Berretta, 1994; Fleischman, 1982): the future is more used in written and formal language, while the present represents colloquial speech. Despite the effect of the register, the future is increasingly rare in the context of colloquial language in general (Italian: Battaglia & Pernicone, 1957; Maiden & Robustelli, 2007; Proudfoot & Cardo, 2005, Spanish: Hoff, 2019b). The other determined cause for such variation is the settledness: the present is considered to be used when the speakers are confident about the event expressed; complementarily, the future seems to be used to express unsettled future events (Hoff, 2019b).

This tendency has been attested in Brazilian Portuguese, Spanish and Italian, but the latter is by far the language that manifests the highest percentage of acceptability (Hoff, 2019; 2020). The conclusion is that this is a phenomenon that characterizes Romance languages and should not be regarded as language-specific.

## 2.5 Summary

The subjunctive mood is characteristic of Romance languages and is therefore present in both Italian and Spanish. The two languages have several characteristics in common: they build the present tense of such mood in similar ways with the same forms, an important feature in pro-drop languages like Italian and Spanish; their overall distribution in matrix and subordinates are comparable in the two systems. In particular, in both languages the subjunctive mood is used in alternation with the indicative mood. Though productive, the subjunctive mood is more used in formal register and by highly-educated speakers; the indicative mood is more used in informal register (spontaneous speech) and by low-educated speakers. This chapter, in particular, focused on the expression of temporal clauses in the languages of interest and the moods and tenses that can be used to express them (namely, present subjunctive, present and future indicative).

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<sup>5</sup> Settledness: the semantic-pragmatic notion that every future world compatible with the speaker's beliefs at speech time is one in which the future eventuality necessarily occurs (Hoff, 2019: i)

## CHAPTER 3

### The study

In this chapter I present my study. In section 3.1, the research questions and hypotheses will be outlined; section 3.2 is devoted to the description of the experimental materials; in section 3.3 an overview of the participants will be provided. In section 3.4 and 3.5, the results will be outlined and discussed.

#### 3.1 Research questions and hypotheses

The aim of this study is to investigate the moods used in temporal clauses with a future meaning in Italian-Spanish bilingual population. Temporal subordinate clauses expressing future events require a present subjunctive verb in Spanish and a simple future indicative verb in Italian. In Spanish, it is ungrammatical, to use the future indicative tense and in Italian, it is ungrammatical the present subjunctive. If these ungrammatical structures occur, we consider that a modification in the bilingual speakers' linguistic systems has occurred, and therefore we classify it as evidence of L1 attrition. In both languages, a present indicative verb can be used in temporal clauses with future meaning for the spoken language.

**RQ1:** Do Italian-Spanish bilingual speakers judge temporal subordinates expressed with the subjunctive mood in Italian as more acceptable than Italian monolinguals do? Is acceptability a function of language dominance, i.e., the more the L2 has an influence, the higher the acceptability is?

For this first research question, we expect Italian-Spanish bilingual participants to judge temporal subordinates with the subjunctive mood in Italian sentences as more acceptable than Italian monolinguals.

**RQ2:** Do bilingual speakers show higher RTs than monolingual ones?

Bilinguals are known to possess two active linguistic systems (e.g.: Grosjean, 2001); this factor, together with the overlap caused by the existence of both indicative and

subjunctive mood in their linguistic competence and the fact that the verbs are in subordinate clauses (e.g., Kinder & Savini, 2004), will probably cause the activation of a control process in bilingual speakers (as already observed in Köpke et al., 2021; Long, 2005 a.o.). Such process is costly in terms of cognitive energy and causes slower response times.

My expectation is that more dominant and more bilingual speakers will show higher Reaction Times (henceforth, RTs) in temporal clauses, especially for the ones containing the subjunctive mood due to cognitive request of control and discrimination. On the contrary, monolingual speakers are able to immediately recognize the ungrammaticality of such clauses without activating any control process therefore showing lower RTs.

## **3.2 Materials and procedure**

In order to answer my research questions, an acceptability judgment task was created; RTs of the participants were also collected. The task is described in section 3.2.1. In addition, the Bilingual Language Profile (BLP) was administered in its standardized and original version, in order to assess the dominance of the two languages for each participant. More details on the BLP are provided in section 3.2.2.

### **3.2.1 The acceptability judgment task**

This task is specifically aimed at answering my research questions, hence at collecting acceptability judgements on temporal subordinate clauses with simple future and present indicative and present subjunctive verbs.

The task contains 18 sentences in three different experimental conditions. Each condition consists of six stimuli:

- Future indicative items (6 sentences);
- Present indicative items (6 sentences);
- Present subjunctive items (6 sentences).

Moreover, the task contains 18 filler items, belonging to three different types of subordinate clauses realized with subjunctive verbs (here, only present subjunctive was used):



- Concessive clauses (6 sentences);
- Purpose subordinates (6 sentences);
- Conditional clauses (6 sentences).

Each item has the same length, which ranges between 18 and 20 syllables. As discussed in §2.1, the Italian present subjunctive does not differentiate between first, second and third persons singular, and it overlaps with the present indicative form for the first plural person. Consequently, we chose to only use stimuli with first person singular, third singular person, third person plural. Each person occurs twice per condition (figure 4). All the items are available in Appendix D.

TASK ITEMS						
	Future	Present	Subjunct.	Concess.	Final	Cond.
first singular person	2 3F, 5F	2 2P, 6P	2 2C, 4C	2 3FC, 5FC	2 3FF, 6FF	2 1FI, 6FI
third singular person	2 2F, 4F	2 3P, 5P	2 3C, 6C	2 2FC, 4FC	2 1FF, 4FF	2 2FI, 3FI
third plural person	2 1F, 6F	2 4P, 1P	2 1C, 5C	2 1FC, 6FC	2 2FF, 5FF	2 4FI, 5FI

Figure 4: Acceptability judgment task: task items per persons and conditions

The modality of the study should be representative of the aim of the research (Penney, 1989). Despite the fact that L1 attrition has been attested at all levels and in all diamesic and diaphasic varieties of language (Gallo et al., 2021), we wanted to specifically examine the shift in the acceptability of sentences that are considered ungrammatical in standard grammars (here, in standard Italian, §2.3). This motivated the choice of investigating temporal clauses in the auditory form.

The verbs contained in the subordinate clause of each item were selected for their high frequency: the selection was made comparing the *Nuovo vocabolario di base della lingua italiana*<sup>6</sup> for Italian with a corpus of Spanish (CREA<sup>7</sup>). The purpose of this match was to avoid any interference of lower frequency verbs and to endow the sentences with features that could resemble natural and everyday speech.

The verbs are 18 and they are presented in both the experimental items and the filler sentences (each verb appears twice in the task). The only exception is the verb *essere*: it appears in one filler sentence, but not in the experimental ones. Instead, the verb *arrivare* appears three times. This had the aim of maintaining all the sentences with the same quantity of syllables and in order to have a general acceptable meaning. The verb distribution is consultable in figure 5.

VERB	ITEM	VERB	ITEM	VERB	ITEM
immaginare	6P, 1FF	firmare	3F, 6FC	riconoscere	2C, 2FI
rispondere	2P, 3FF	cominciare	5F, 4FF	finire	4C, 6FI
arrivare	3P, 2FF, 4F	studiare	2F, 5FC	chiedere	3C, 3FI
mangiare	5P, 4FC	essere	2FC	aiutare	6C, 5FI
trovare	4P, 3FC	toccare	1F, 6FF	andare	1C, 5FF
ricevere	1P, 1FC	desiderare	6F, 1FI	avere	5C, 4FI

Figure 5: Distribution of the verbs across all the task items.

Some of the examples of the items are the following:

<sup>6</sup> De Mauro, T. (2016), Internazionale <https://dizionario.internazionale.it/nuovovocabolariodibase>

<sup>7</sup> CREA – 10000 words: [https://apps2.rae.es/CREA/estad/10000\\_lemas.txt](https://apps2.rae.es/CREA/estad/10000_lemas.txt) - <https://www.rae.es/banco-de-datos/crea>

49. Present indicative Organizziamo una cena quando ricevono il premio.  
 ‘We will organize a dinner when they receive-PRES the award.’  
 ‘We will organize a dinner when they receive the award.’
50. Future indicative Riceverete un messaggio quando firmerò il contratto.  
 ‘You will receive a message when I sign-FUT the contract’  
 ‘You will receive a message when I sign the contract.’
51. Present subjunctive Invieremo ai nonni la lista quando vadano al mercato.  
 ‘We will send our grandparents the shopping list when they go-SUBJ to the market.’  
 ‘We will send our grandparents the shopping list when they go to the market.’
52. Concessive clause Non apprezzo i colleghi, benché ricevano molti complimenti.  
 ‘I do not appreciate my colleagues even if they receive-SUBJ a lot of compliments.’  
 ‘I do not appreciate my colleagues even if they receive a lot of compliments.’
53. Purpose clause Chiamano l'ufficio, affinché io risponda sempre alle chiamate.  
 ‘They call the office so that I always answer-SUBJ the calls.’  
 ‘They call the office so that I always answer the calls.’

54. Conditional clause Saremmo molto orgogliosi se aiutassero l'anziana vicina.

‘We would be very proud if they helped-SUBJ the old neighbor.’

‘We would be very proud if they helped the old neighbor.’

The responses for the acceptability judgement items were provided on a slider that represented the Likert scale, from 1 to 7.

The experiment was built with Gorilla<sup>8</sup>. The platform directly provides the link to the experiment and no intermediate programs nor platforms were used. Gorilla anonymously and randomly assigned to each participant an ID number and the privacy of the individuals was therefore granted. The participants could access the experiment from PCs and mobile phones, both from Android and iOS operative systems.

The workflow was structured as follows: first, participants were presented with the consent form (appendix c): once they accepted to participate in the study, the acceptability judgement task and the BLP questionnaire were shown. The BLP, containing sociolinguistic information, was put at the end of the task to prevent an excessive focus on that part causing tiredness and to allow the participants to focus on the experimental task.

The items were orally presented: the author of this thesis recorded and uploaded them. Each item recording was between 3 to 4 seconds long. Before starting the task, the participants received the audio check from Gorilla itself.

The responses were given with a sliding scale (figure 6). It represented the values of the Likert scale on seven point (1-7). The slider was labelled at the two extremes with *suona male* ‘it sounds bad’, which corresponds to 1, and *suona bene* ‘it sounds well’, which corresponds to 7. The slider has proven to be the most reliable as well as easily reproducible method to judge isolated items (Imbault et al., 2018) and it allows to avoid

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<sup>8</sup> <https://gorilla.sc/>

the labelling of each level, providing a perception of equality among the different points of the scale (Cowart, 1997).



*Figure 6: The slider used in the experiment on Gorilla.*

The participants were given the opportunity to familiarize with it before starting the task items, through a warm up section consisting of two items.

The items were not timed, but the participants could only hear each recording once and could only move forward. The progress from one item to the other was not automatic and therefore the participants had the possibility to adjust the response if needed. The estimated duration of the task was around 5 minutes.

### **3.2.2 BLP**

The instrument used to assess the participants' dominance in Italian and Spanish is the Bilingual Language Profile (BLP)<sup>9</sup>. This questionnaire assesses the different dimensions of dominance through four modules organized in an equally-weighted way. The testees are asked to answer 19 multiple choice questions regarding both languages or varieties spoken by the participant. The modules cover (i) the language history, with questions about the age of acquisition, the years of schooling, time spent in a country where the language was dominant etc.; (ii) the language use, attesting an average percentage per week in various daily contexts; (iii) the language proficiency for the different language modalities; (iv), the language attitudes, to assess the importance given to each language.

Each subcategory has a different number of items and, in order to balance the weight of the responses, each question has a different score. In this way, the estimation is equal to

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<sup>9</sup> <https://sites.la.utexas.edu/bilingual/>

25% per subcategory and each part evenly contributes to the assessment of the dominance in the two languages (table 2). The dominance continuum collocates on a range that goes from -218 to +218.

Subcategory	Scale	Number of questions	Weighting coefficient	Total weight in %
Language history	0-20	6	0.454	25
Language use	0-10	5	1.09	25
Language proficiency	0-6	4	2.27	25
Language attitudes	0-6	4	2.27	25

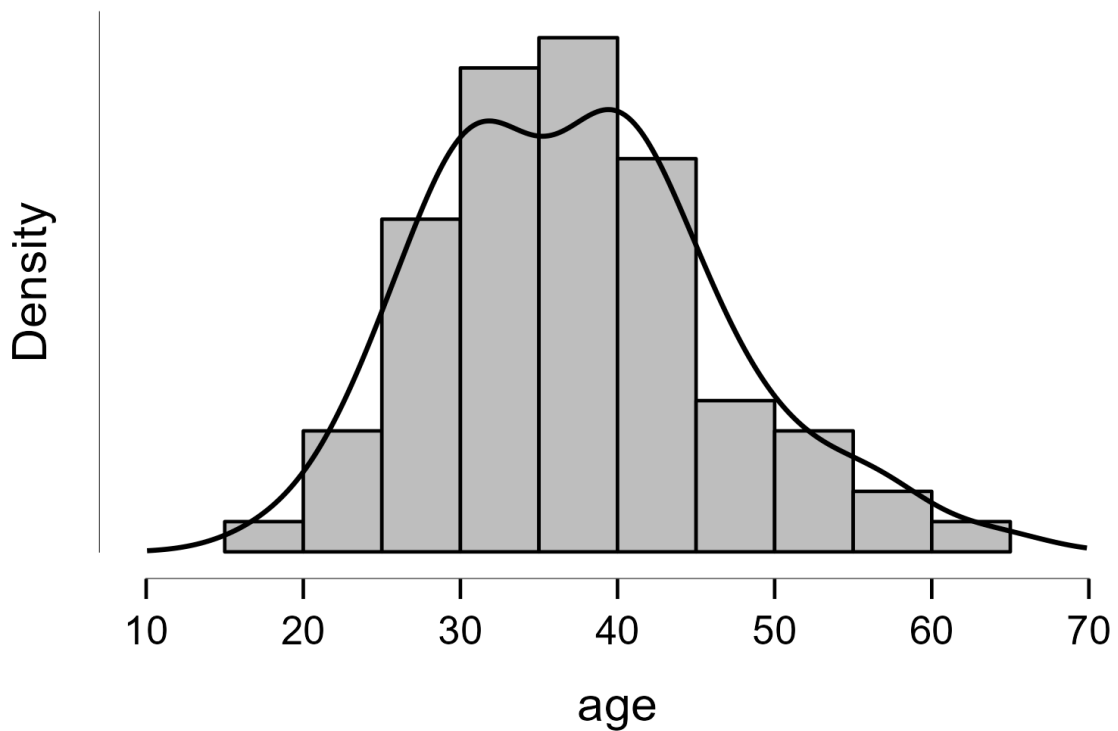
Table 2: Bilingual Language Profile (BLP) structure and scoring weight coefficient.

The participants were presented with the BLP questionnaire in the second part of the study, after the acceptability judgment task. The first screen contained the questions of the section *Language history*, the second those of the section *Language use* and the third with the questions regarding the sections *Language proficiency* and *Language attitudes* (Appendix D). The estimated time for its completion was of around 10 minutes.

### 3.3 Participants

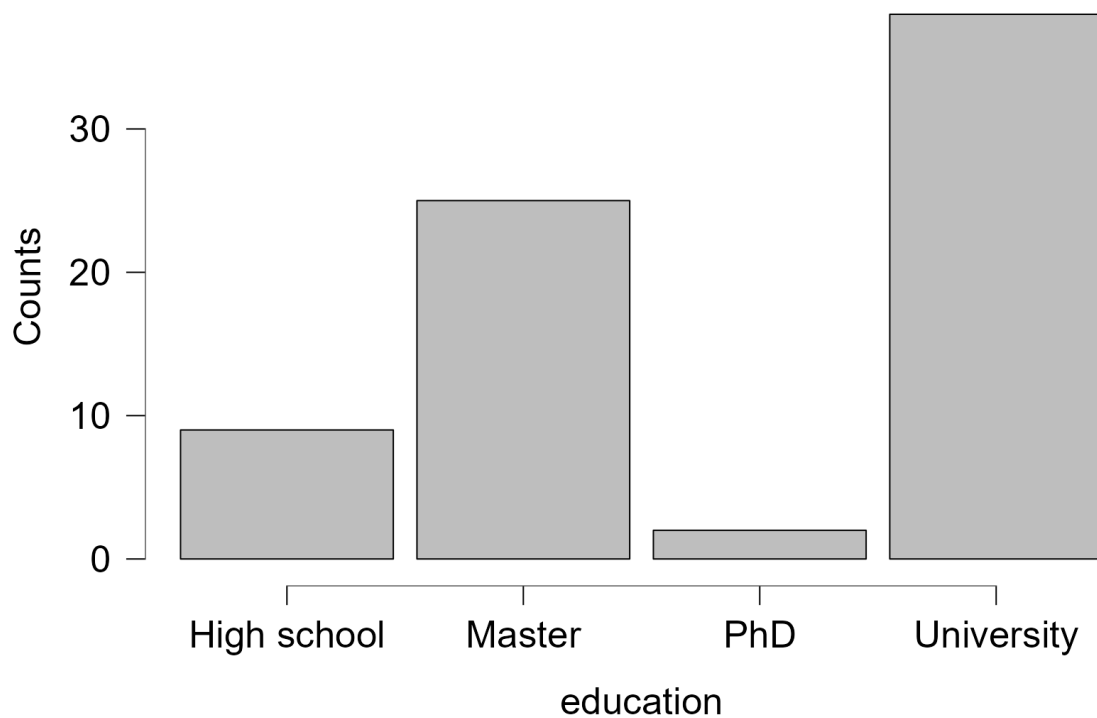
74 participants took part in the study. Two participants were invited as Spanish native speakers, one residing in Italy and the other in Spain, and have a fluent level of Italian. They use it daily at work and at home. We also invited 11 participants as Italian native speakers with no knowledge of Spanish who reside in Italy. 61 speakers are Italian native speakers that meet the criteria of living in Spain and being Italian-Spanish bilinguals.

The age of the participants ranged from 18 to 64 (mean age = 37.43, SD = 9.28). Figure 2 shows the distribution of the participants' age.



*Figure 7: Distribution of the age of the bilingual participants.*

The vast majority of the participants in this study are university graduates (N=38) and possess a master's degree (N=25), while 8 are high-school educated and 2 have completed a PhD program (figure 8). Here, the options for University and Master are consistent with the Italian university system: the Bachelor's and Master's degree are included in the option "University", while postgraduate studies (at both the Bachelor's level – I level, and the Master's level – II level) are included in the Master option. This was specified in brackets in the responses.



*Figure 8: Distribution of the levels of education of the bilingual participants.*

The participants were recruited through personal acquaintances and Facebook posting in the groups ‘Gli italiani a Barcellona – amicizie e discussioni sull’Italia’<sup>10</sup> and ‘Italiani a Palma di Mallorca e Baleari’<sup>11</sup>. The policy of the groups did not allow the posting of the link and the participants were therefore sent the link via private message.

The participation in the study was not compensated and all the participants were volunteers. In order to proceed and initiate the task, they had to agree to the consent form (appendix C), in accordance with art. 13 of EU Regulation 2016/679, Ethic Code of the World Medical Association (Helsinki declaration, 2001) and according to the standards established by Bembolab, DLSCC, Ca’ Foscari University of Venice.

<sup>10</sup> <https://www.facebook.com/groups/gliitalianiabarcellona>

<sup>11</sup> <https://www.facebook.com/groups/383049298741544>



### **3.4 Results**

In the following sections, the main results are described: first, the data from the acceptability judgment task will be presented; second, the results from the reaction times will be shown. Each section will provide analyses and relative plots to illustrate the data collected.

The data were downloaded from Gorilla platform and reorganized in long format on Excel. The analyses were run on JASP 0.16.3.

#### **3.4.1 Acceptability judgment task**

We present the main results emerged through the analysis of the acceptability judgments collected.

For the present analyses, the participants were not grouped based on their language dominance; instead, they are treated as one group and their language dominance as a numeric value.

Before turning to the statistical analyses, let us report some descriptive statistics for the items: the items with subjunctive verbs have a mean acceptability rate of 2.35 (SD = 2.41), a mode of 1.00 and a median value of 1.00. The items with future verbs have a mean acceptability rate of 6.11 (SD = 1.92), a mode of 7.00 and median of 7.00. The acceptability of the items with present verbs has a mean value of 3.49 (SD = 2.70), with a mode of 1.00 and a median value of 2.00. All the descriptives for experimental and filler items are reported in Tables 3 and 4.

### **Descriptive Statistics – Acceptability Judgment task, experimental conditions**

	<b>value</b>		
	<b>subjunctive</b>	<b>future</b>	<b>present</b>
Mode	1.000	7.000	1.000
Median	1.000	7.000	2.000
Mean	2.530	6.105	3.493
Std. Deviation	2.412	1.917	2.698
Minimum	1.000	1.000	1.000
Maximum	7.000	7.000	7.000

*Table 3: Descriptive statistics for the three experimental conditions.*

### **Descriptive Statistics – Acceptability Judgment task, filler items conditions**

	<b>value</b>		
	<b>conc</b>	<b>fin</b>	<b>ipo</b>
Mode	7.000	7.000	7.000
Median	7.000	7.000	7.000
Mean	5.580	5.737	5.913
Std. Deviation	2.360	2.199	2.115
Minimum	1.000	1.000	1.000
Maximum	7.000	7.000	7.000

*Table 4: Descriptive statistics for the three filler conditions.*

In order to determine whether the BLP score and the verb in temporal clauses have a significant effect on the acceptability values, a generalized linear mixed model with Poisson family was used, with the acceptability judgments (1 to 7) as the dependent variable, and the type of verb (subjunctive, future or present) together with the BLP score

as fixed effects. Item and participants were considered as random effects, given that a repeated measures design was used.

The statistical analysis revealed a significant main effect of the BLP score on the grammaticality judgments ( $p=0.025$ ) as well as a main effect of the verb type ( $p<.001$ ). Moreover, it showed a significant interaction between the verb type and the BLP score ( $df=2, p = 0.003$ ).

Through the creation of a distribution plot of the descriptives (figure 9), we can observe that there is only little difference in the distribution of the future indicative judgments according to the BLP scores of the participants. The participants were not grouped according to their BLP score, the individuals that located towards the maximum score (i.e., +218) are more Italian monolingual, while the speakers that produced a score towards the minimum score (-218) are more Spanish-dominant speakers. In this case, all the participants produced the higher scores and the variation is minimal. We can therefore claim that there is no significant change in the acceptability of the temporal clauses containing the future form. There is also no variability according to the linguistic dominance of the speakers.

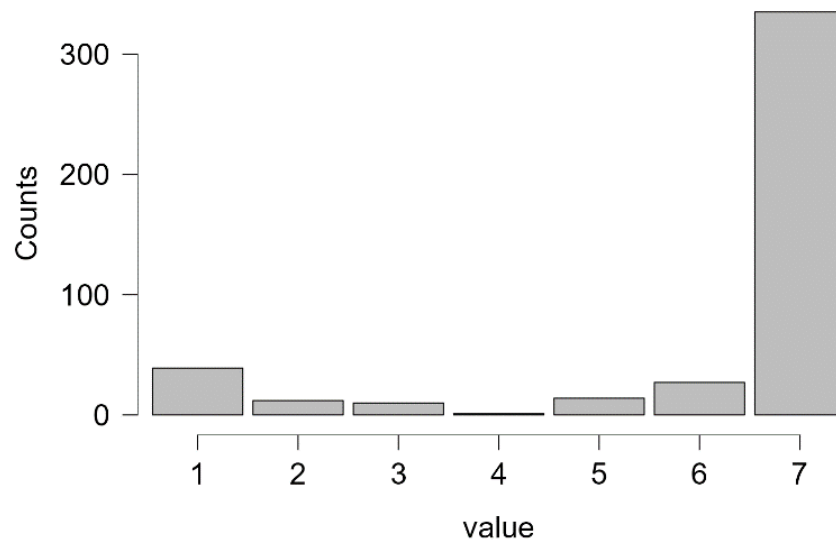


Figure 9: Distribution of the values selected for the condition 'Future'

Similar responses were also given in the sentences with the present indicative (figure 10). Both participants with high scores (Italian-dominant) and low scores (Spanish-dominant) in the BLP produced responses in the middle of the range. The values do not differ across the range, and the tendency is parallel with the future one. Therefore, the sentences with the present indicative were not unacceptable but were not completely acceptable and were not evaluated with the maximum scores (i.e., 7) by monolingual and bilingual speakers.

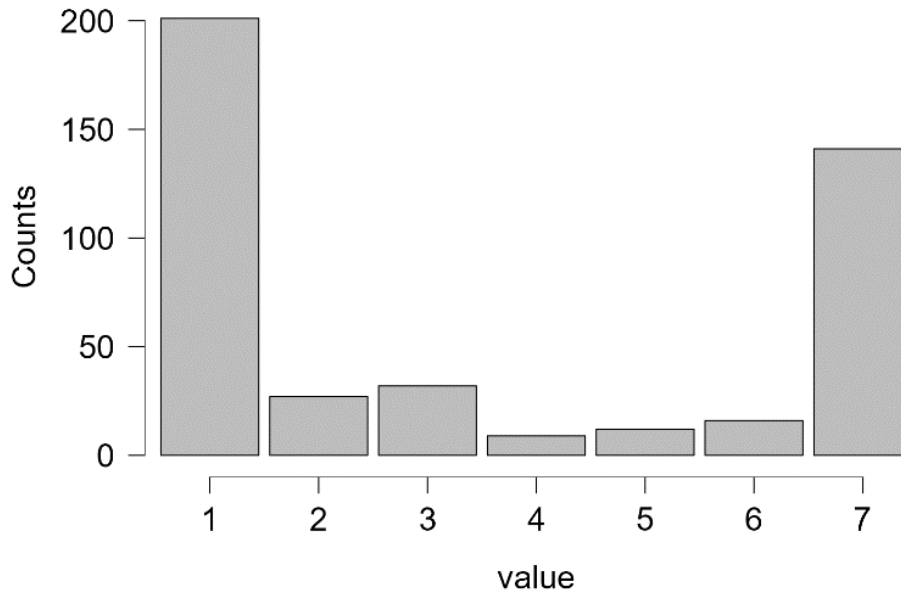


Figure 10: Distribution of the values selected for the condition 'Present'

The present subjunctive scores (figure 11), on the other hand, demonstrate the major difference. While the participants with the lowest BLP scores produced responses that were located in the middle of the Likert scale – and similar to the present values- the participants with the highest BLP scores judged these items as totally unacceptable. In this case, the values grow consistently with the diminution of the BLP scores, becoming

more and more acceptable. Consequently, the more Spanish-dominant the speaker is, the more acceptable the subjunctive item becomes.

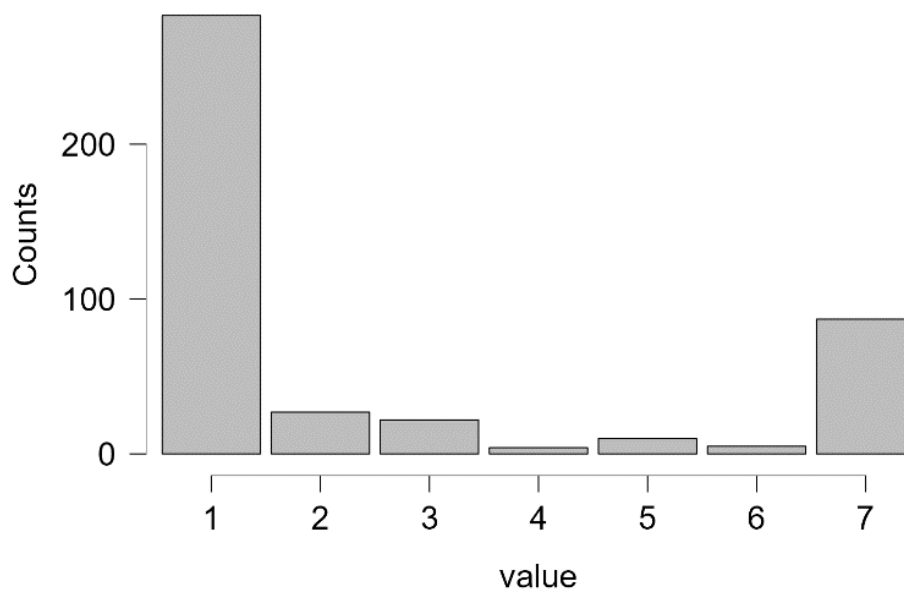


Figure 11: Distribution of the values selected for the condition 'subjunctive'

Moreover, if we take into consideration the scatterplot of all the conditions the participants were asked to respond to (figure 13), and therefore if we observe all the responses provided, we observe that there is little difference among the filler conditions (namely, concessive, purpose and hypothetical clauses) and that they received the higher scores in the scale and across participants' bilingual dominance, locating their data similarly to the future present clauses. We observe that only the concessive clauses received slightly lower scores, and that the filler forms received marginally lower values by the more Spanish-dominant speakers. It is relevant to observe that the items where the subjunctive is acceptable (namely, the filler conditions: concessive, hypothetical and purpose clauses) obtained the maximum values. This is in contrast with the results of the values from the temporal clauses and demonstrates that the subjunctive is not

unacceptable

*per*

*se.*

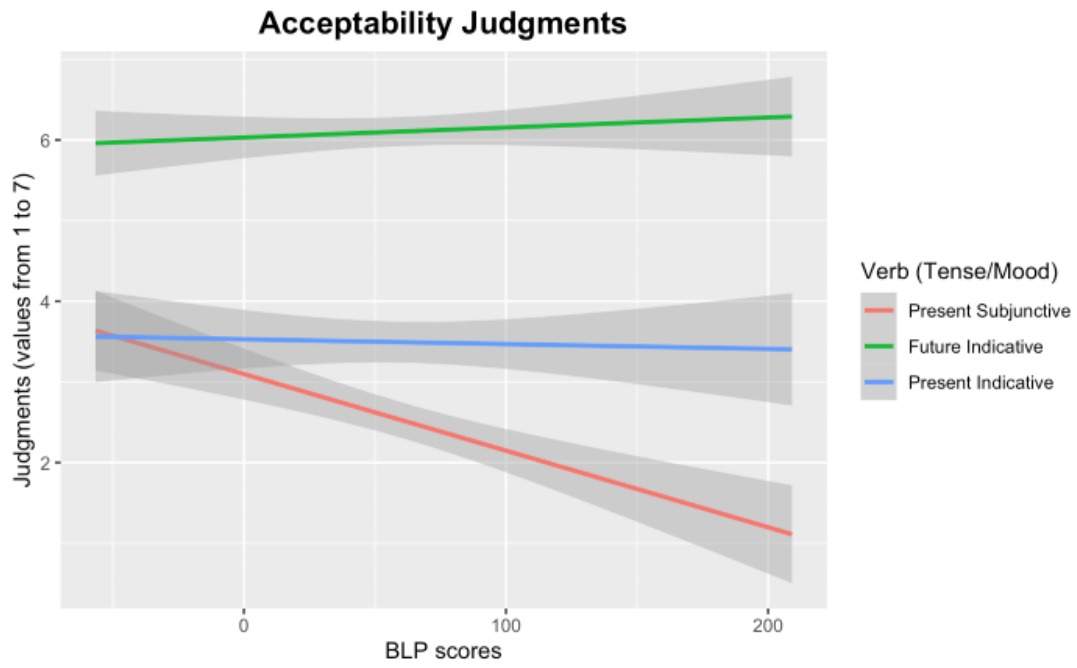


Figure 12: correlation of BLP scores and the acceptability judgments for the experimental conditions.

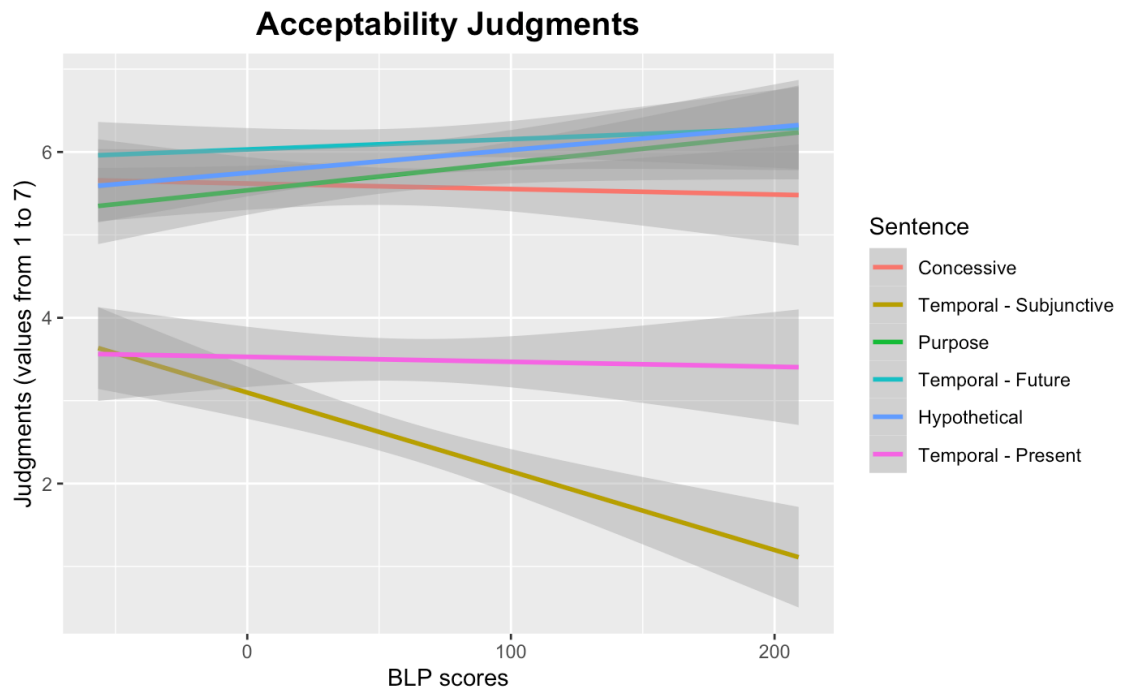


Figure 13: BLP scores and the judgments for all the items.

The RTs had a mean value of 8107.274 ( Min= 1266.625, Max=161790.209; S.D. = 7783.921, Median value = 64665.182).

### Descriptive Statistics

	RTs
Mode	4069.000
Median	6465.182
Mean	8107.274
Std. Deviation	7783.921
Minimum	1266.625
Maximum	161790.209

Table 5: Descriptive statistics for the three experimental conditions

In figure x, the reaction times of the participants are reported, distributed according to their language dominance. Figure 14 shows the presence of some outliers.

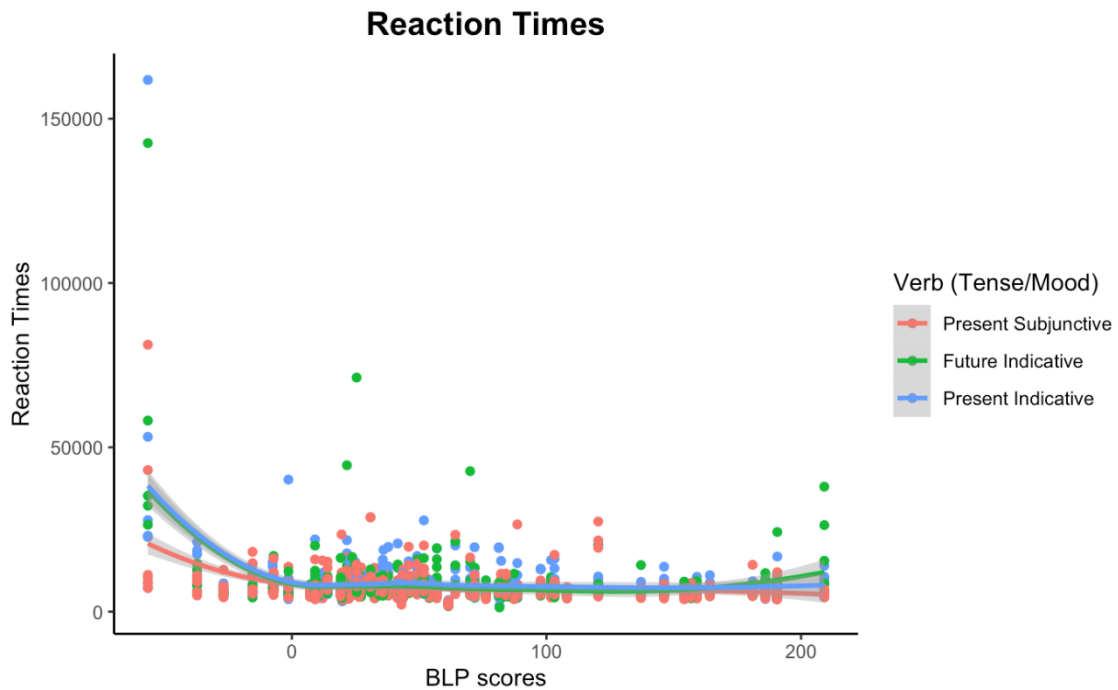


Figure 14: Scatterplot of the RTs per BLP score of the participants for the experimental conditions.

The RTs were analyzed with the correlation using Spearman’s Rho coefficient (figure 15) selecting the values of the reaction times and the BLP scores as variables. The correlation between the RTs and the BLP results was negative and significant ( $t=-0.164$ ,  $p<.001$ ).

The figure shows that the higher scores (Italian-dominant participants) of the BLP corresponded to lower RTs, while the lower scores of the BLP (Spanish-dominant speakers) produced higher RTs. The plot therefore represents the negative correlation: the increase of Italian (L1) dominance corresponded to lower RTs, and its decrease caused higher RTs.

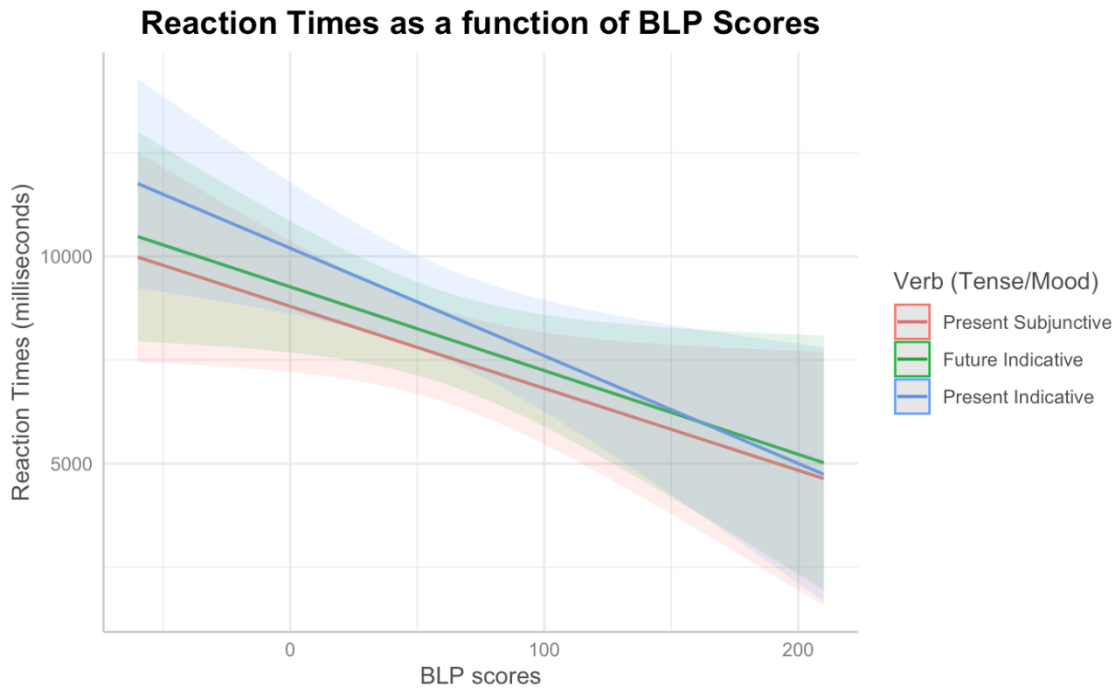


Figure 15: RTs and BLP scores for the experimental conditions.

A generalized linear mixed model was used to analyze reaction times as well: with the RTs as dependent variable, with the BLP score and the tense/mood of verbs as fixed effects. Participants and items were considered random effects. The results, provided in figure x, attested a main effect of the BLP score on the RTs ( $p=0.041$ ) as well as a main effect of the tense/mood of verbs (present indicative, future indicative, present subjunctive) on the RTs. However, this is valid only for the effect of the present on the subjunctive RTs ( $p=0.027$ ), and not for the future or the subjunctive RTs ( $p=0.458$ ). There also were no interactions between the BLP scores and the future items on the RTs ( $p=0.956$ ) as well as the BLP scores and the present items on the subjunctive RTs ( $p=0.415$ ).



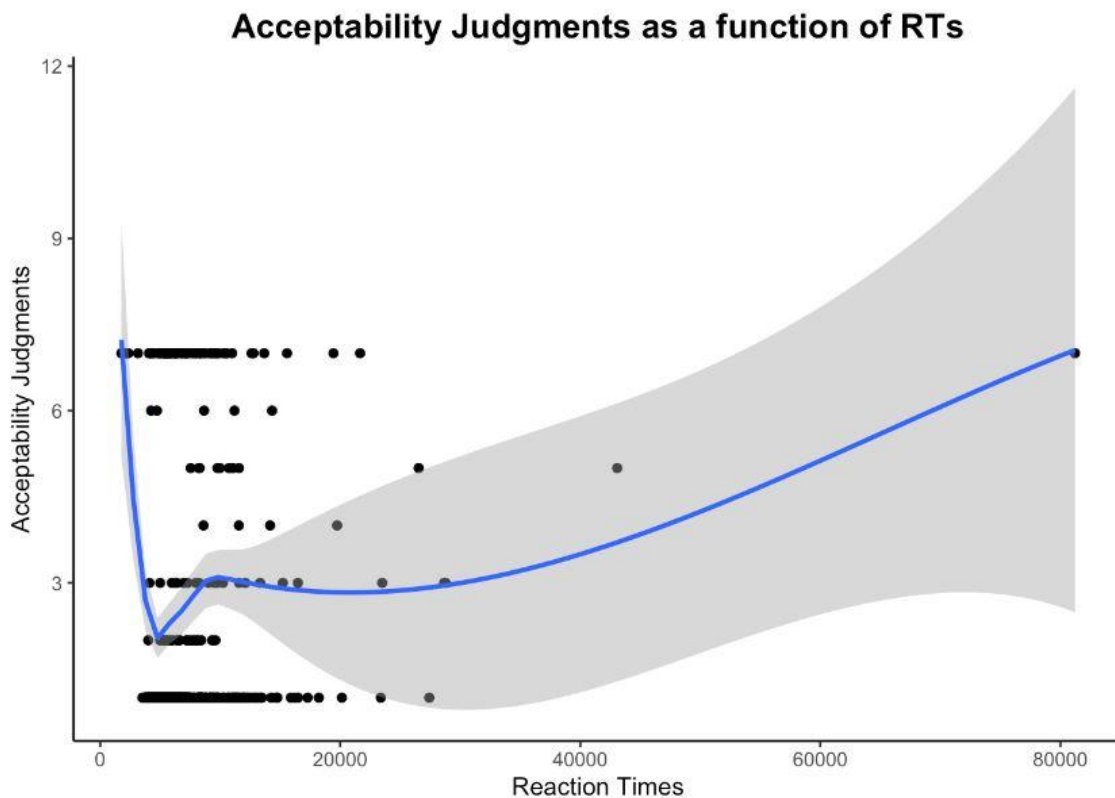


Figure 16: distribution of the RTs and the acceptability judgments.

The results from the RTs show that data is not normally distributed and that the values change according to the score obtained in the BLP by the speakers (figure 16).

### 3.5 Discussion

My study aimed at attesting the presence of L1 attrition in Italian-Spanish bilinguals. In particular, the bilingual participants were L1 (native) Italian speakers residing in Spain. To do so, we decided to investigate the use of subjunctive verbs in future temporal clauses, which is unacceptable in Italian, through an acceptability judgement task. In particular, we expected that the more a bilingual speaker has Spanish as their dominant language (i.e., the more they could be attriters), the more they would judge subjunctive verbs in temporal clauses acceptable.

The data we collected confirm my prediction: language dominance was found to be a significant predictor of acceptability. In other words, the more a participant obtained a

lower score in the BLP (meaning that their dominant language is Spanish), the more they judged temporal clauses with subjunctive verbs acceptable. This means that more Spanish-dominant participants consider acceptable a syntactic structure which is ungrammatical in standard Italian but grammatical in standard Spanish, showing the influence of the L2 when judging structures in their L1.

My results show that an instance of L1 attrition in the investigated population. The more L2-dominant the bilingual speakers, the more attrited is their morphosyntactic system. This is consistent with other experiments that found attrition for other morphosyntactic properties (e.g., Tsimpli et al., 2003). These results are relevant since morphosyntactic elements are claimed to be the less prone to be affected by any changes of the linguistic systems (e.g., Sorace, 2011).

The variation attested by the results of the grammaticality judgment task might have been able to picture the alternation of the selection of the moods. Spanish and Italian, as well as other Romance languages (e.g., Poplack et al., 2018; Digesto, 2021), especially in the spoken language (Giorgi & Pianesi, 2004), alternate between the use of subjunctive and indicative verbs. This might have created an indecision in the mood selection, since the indeterminacy of certain language traits has been linked to augment existing instabilities of a language in other studies (e.g., Sorace & Filiaci, 2006). This could be regarded as the cause of the results produced by the present population. If we consider, however, that Italian language has a diminishing rate of subjunctive selection in favor of indicative (Della Valle and Patota, 2011), it might be surprising to observe the data we collected: the tendency demonstrated in the Italian-Spanish bilinguals here is in the opposite direction. It is important to mention that monolinguals' results are in line with it. Bilinguals, on the other hand, are more consistent with the Spanish language tendency of more stability of the subjunctive mood (Poplack et al., 2018).

The surprising results, however, regard the acceptability judgment regarding present indicative verbs in temporal clauses. The present indicative is usually used in spontaneous speech to express future events in the presence of temporal determination at the expense of the future indicative (e.g.: Marchetti, 2018). Because of that, we expected that my participants would judge present indicative verbs as acceptable as future indicative ones (assigning values between 5 and 7 to such items). Instead, the present tense had a different

tendency and was considered less acceptable than the future indicative but more acceptable than the subjunctive (the values selected are the middle one, namely 3, 4). One possible cause might be the metalinguistic awareness of the participants, who were aware that present tense is not accepted, by prescriptive grammars. The selection of the values in the middle would thus be representative of the non-full acceptance that speakers, in particular bilinguals, might perceive. This can lead to ungrammatical strategies aimed at compensating for the absence of real native-like information (Hawkins & Tsimpli, 2009). We could also hypothesize that the uncertainty demonstrated was due to the lack of an adverb or temporal complement that created the temporal determination required for the use of the present indicative.

It is interesting to observe that, while the more monolingual speakers evaluated the subjunctive clauses as unacceptable (i.e., assigning the corresponding items a value of 1), and were consistent in the evaluation of the present indicative creating a tendency in the mid-range, the future indicative mean response – despite the mode and the median on the maximum - does not collocate on the maximum point (i.e., 7). Despite the presence of responses that rated the future at the maximum value, the average response even for the highest scores of Italian dominance are lower. There seems to be no fully acceptable response for the temporal clauses with future meaning. A possible explanation for this could be the fact that the future indicative form is less and less present in the speech of native Italian speakers (Marchetti, 2018). At the same time, the data collected in the present study might attest that the increasing use of the present indicative in expressing future events.

The study sheds a light on the importance of considering bilingual speakers on a continuum (e.g., Schmid, 2007; Isurin, 2007) rather than using categorical classifications. Bilinguals constitute a heterogeneous group and their responses may vary to a great extent. For instance, taking into consideration the plots in figure 12 and my data, the strong and severe change that occurs from one extreme to the other of the dominance values is evident. In absence of standardized grouping procedures and due to the awareness of the several factors that influence the dominance evaluation together with the high interindividual variation, we find that this study shows the utility of considering bilinguals on a continuum and that they should not be grouped. In the same vein, the results highlight the importance of considering monolinguals as the one extreme of the continuum, yet the

same results entangle the identification and the isolation of monolinguals. It is not clear to what extent a speaker can be considered as monolingual, and whether there is a threshold that can be agreed upon. The exigency for non-categorized distribution of the speakers is pervasive and relevant for the entire range of participants.

The analysis of the RTs allowed us to also investigate another aspect of the bilingual speaker's language. My prediction was that more Italian-dominant (higher BLP scores) speakers would have lower RTs for the evaluations of the items in the acceptability judgement task, while more Spanish-dominant (lower BLP scores) would show higher RTs.

As for acceptability judgments, my prediction regarding RTs was confirmed. A significant negative correlation was found between RTs and language dominance. Namely, RTs were higher for the participants with lower BLP scores (meaning that they are more Spanish-dominant) than for the subjects with higher BLP scores. The bilingual speakers, in other words, needed more time to evaluate each item. This correlation is expected and seems to highlight a difference in processing. The values show a similar tendency for all the participants. Such difference is indicative of a more demanding processing for the bilinguals, which is not present in the monolingual participants. Bilingual speakers, in fact, possess two linguistic systems, and the activation of only one system – and the consequent discrimination from the other one – requires the activation of cognitive control. We assume that cognitive control is explanatory of the higher RTs found in bilinguals because of the discrimination and the control required to distinguish the different mental grammars. The control process is so energy-consuming that has a quantitative influence, visible in the heightened time required to provide the judgments. Monolinguals, on the other hand, do not necessitate such regulation and their RTs are henceforth lower than those of bilinguals. We need to observe, however, that we expect solely balanced bilinguals to have the higher cognitive load due to the equal activation of the two linguistic systems. Spanish-dominant and Italian-dominant speakers, on the other hand, are suggested to behave similarly and have lower RTs because of the language dominance. In other words, we would consider that the more dominant for a language, the less load the cognitive process receives and therefore the lower the RTs should be. My study, however, does not include a considerable number of participants whose dominance level located in the range of Spanish-dominance.

Sharing the post on Facebook opened up the possibility for participants to leave further comments and even ask questions. Some participants reported that they autonomously observed that their Italian was no longer as per prescriptive grammar but had rather changed (55). Other participants were interested in receiving more information on the target items, as they had received feedback from family members on their non-standard Italian (56). They had been told that their Italian was different from what it used to be and that their proficiency in their L1 was undermined. Another participant raised the issue of different levels of interpretation of the sentences, acknowledging a metalinguistic analysis of the sentences, and that while one aspect might have been acceptable, another was not (57). In some ways, this partly supports the idea of the influence of metalinguistic awareness playing a fundamental role in L1 attrition (Baladzhaeva and Laufer, 2018).

55. “Mio fratello mi dice costantemente che non so più parlare in italiano. Per quello mi incuriosisce.”  
‘My brother is constantly telling me that I can no longer speak Italian. That is why I am curious about it.’
56. “In che senso suona bene? Tipo la prima è grammaticalmente corretta ma poi non sono sicura!”  
‘In what way it ‘sounds well’? For example, the first one is grammatically correct but then I am not sure!’
57. “A proposito dei bambini e il congiuntivo... Io pensavo di aver fatto un ottimo lavoro perché non ne sbagliano neanche uno! Poi mi sono resa conto che non li sbagliano perché in spagnolo non usano mai l’indicativo!”  
‘Talking about kids and subjunctive... I thought I had done a great job because they [my kids] do not get even one wrong! Then, I realized that they do not make any mistakes because in Spanish they never use the indicative!’

In some cases (N=3) it was suggested by the participants to have the option of listening to the audio more than once. We assume that such suggestion was to search for further hints and caused by the difficulty of the cognitive control weight. Others (N=3) reported

having some issues in the quantification of some of the questions of the BLP, and 2 participants reported difficulties in completing the task because of the length (N=1) and challenge (N=1).

## Conclusions

In the present work, we investigated the expression of temporal clauses with future events in Italian-Spanish bilinguals, with the aim of analyzing the attrition these speakers undergo.

We saw that L1-attrition is a sub phenomenon of bilingualism, in which the linguistic system of bilingual speakers is modified. Due to this phenomenon, speakers linguistically produce speech – on a pragmatic, phonetic, semantic or syntactic level – that differs from the prescriptive – and monolingual – grammars.

We showed that in temporal clauses expressing future, the Italian and Spanish grammars differ: the former requires the future indicative, and a subjunctive form is ungrammatical; the latter requests the present subjunctive, and the future indicative is ungrammatical. We therefore hypothesized that the more the speakers are bilingual, where language dominance is measured by the BLP questionnaire, the more the temporal clauses are modified. The speakers judge as acceptable ungrammatical Italian sentences. The results confirmed the first research hypothesis: L2 dominance proved to be a reliable indicator of the acceptability of ungrammatical sentences and consequently, of L1 attrition.

Our results also showed that the possibility of using the present indicative, allowed in both colloquial Spanish and Italian, is similar among all the participants. The results illustrated, however, that it is less accepted than the future but more accepted than the subjunctive, indicating that a change is ongoing and that the present indicative is increasingly acquiring acceptability among the speakers.

We overviewed the bilingual mind and its characteristics. As a consequence of mastering two linguistic systems, the amount of cognitive control is so relevant that the reaction times to provide a judgment in the task was higher than monolingual speakers. In other words, our results demonstrated that, consistently with previous studies, bilingual speakers are slower in controlling and distinguishing the two languages than Italian-dominant individuals.

Previous research and the present study highlight the importance of considering the speakers as a continuum between monolinguals and bilinguals. This allows a more

adequate representation of the speakers as the range of the speakers would therefore be complete.

### **Limits and future directions**

Future research on the topic of temporal clauses should investigate the language production of bilinguals. The methodology used in this study was able to provide a more representative picture of the shift of use of the subjunctive mood. However, it is fundamental to observe the language system with respect to both production and comprehension. It will endow a more complete frame of the occurrence of L1 attrition.

This study was also limited with regards to the participants. The study lacks of Spanish monolinguals as the population of interest of this study was Italian-Spanish bilinguals and Italian monolinguals were considered as control group. The presence of Spanish monolinguals would however contribute to provide a complete range of the continuum and therefore the results of an acceptability judgment task would represent a full overview of the linguistic use of the mood in temporal clauses.

The expression of future events in temporal subordinates and in main clauses might be of interest for other studies, as it seems to be in progressive modification. The data seem to indicate the necessity of further investigation in the possible substitution of the future indicative of other tenses, in order to attest the change in monolingual speakers to provide a better understanding of the acceptability and use of verb features.



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## APPENDIX A

### CONSENT FORM

#### Modulo per l'espressione del consenso informato Progetto "L1 attrition: verbi in frasi complesse"

Gentile partecipante,

il presente studio è condotto dalla studentessa Veronica Mazzocco sotto la supervisione della prof.ssa Anna Cardinaletti, docente del Dipartimento di Studi Linguistici e Culturali Comparati dell'Università Ca' Foscari Venezia, e della dott.ssa Alice Suozzi, dottoranda presso lo stesso Dipartimento. Sottoscrivendo il presente modulo, Lei esprime il Suo consenso alla partecipazione allo studio e alle attività di seguito descritte.

La partecipazione a questo studio è quindi volontaria e potrà decidere di abbandonarlo in qualsiasi momento successivo alla manifestazione del consenso, salvo quanto di seguito indicato e salvo ove sussistano motivi cogenti che legittimino la prosecuzione dello stesso, senza alcun tipo di conseguenza negativa. A tutela della sua privacy, i dati personali a Lei relativi, raccolti nell'ambito di interviste audio, verranno resi anonimi (non più quindi riconducibili alla Sua persona) prima di procedere all'analisi degli stessi nell'ambito dello studio, in accordo con il codice etico e di condotta dell'Università Ca' Foscari Venezia e con le normative vigenti. Anche i risultati delle analisi dei dati verranno presentati e pubblicati in tesi, libri o articoli per riviste scientifiche in forma aggregata e anonima. Una volta che i dati raccolti nell'ambito dello studio saranno resi anonimi, non potrà più ritirare il consenso alla partecipazione allo studio, chiedere la cancellazione dei dati personali, in quanto non saranno più riconducibili a Lei, né richiedere che gli stessi vengano modificati o rettificati. Potrà invece chiedere la cancellazione dei dati raccolti al momento della prestazione del consenso alla partecipazione allo studio, che verranno conservati in quanto necessari per lo svolgimento di verifiche sull'autenticità dei dati raccolti. I predetti diritti potranno essere esercitati secondo quanto di seguito indicato. Lo studio ha ricevuto l'approvazione della Commissione Etica di Ateneo in data 05.02.2020, verbale n. 1/2020 (per ulteriori informazioni: [commissione.etica@unive.it](mailto:commissione.etica@unive.it)).

#### Metodologia di ricerca

Il presente studio è rivolto a soggetti di età superiore ai 18 anni, parlanti nativi italiani e che risiedono in Spagna. L'interesse principale è quello di indagare le abilità sintattiche in frasi complesse. Le attività potranno coinvolgere l'ascolto di frasi registrate e una valutazione da parte dei soggetti. Infine, potremmo chiederle di compilare un breve questionario sul suo profilo linguistico, background familiare e il percorso educativo.

#### Contatti

Per qualsiasi domanda relativa alle procedure dello studio e per modificare/revocare il consenso alla partecipazione allo studio, ora o in futuro, può contattare:

- supervisor della ricerca: prof. Anna Cardinaletti (0412345724, [cardin@unive.it](mailto:cardin@unive.it));  
dott.ssa Alice Suozzi ([alice.suozzi@unive.it](mailto:alice.suozzi@unive.it))

- studentessa/responsabile della raccolta dati: Veronica Mazzocco  
([862619@stud.unive.it](mailto:862619@stud.unive.it))

**Informativa sul trattamento dei dati nell'ambito del progetto  
“L1 attrition: verbi in frasi complesse”  
ai sensi dell'art.13 del Regolamento UE 2016/679 (“Regolamento”)**

Con il presente documento, l'Università Ca' Foscari Venezia (“Università”) le fornisce informazioni in merito al trattamento dei dati personali raccolti all'interno del progetto di ricerca denominato “L1 attrition: verbi in frasi complesse” che si prefigge di indagare diverse frasi complesse dell'italiano attraverso prove di produzione, ripetizione e comprensione ed è condotto dalla prof.ssa Anna Cardinaletti quale Principal Investigator. Ove necessitasse di ulteriori informazioni relative al progetto, la preghiamo di contattare la Principal Investigator scrivendo all'indirizzo di posta elettronica: [cardin@unive.it](mailto:cardin@unive.it).

Il progetto è stato redatto conformemente agli standard metodologici del settore disciplinare interessato ed è depositato presso il Laboratorio BemboLab – Dipartimento di Studi Linguistici e Culturali Comparati dell'Università Ca' Foscari Venezia, dove verrà conservato per cinque anni dalla conclusione programmata della ricerca stessa.

**1.Titolare del Trattamento.** Il Titolare del Trattamento è l'Università Ca' Foscari Venezia con sede legale in Dorsoduro 3246, 30123 Venezia, rappresentata dalla Magnifica Rettore *pro tempore*.

**2.Responsabile della Protezione dei Dati.** L'Università Ca' Foscari ha nominato il “Responsabile della Protezione dei Dati”, che può essere contattato scrivendo all'indirizzo di posta elettronica [dpo@unive.it](mailto:dpo@unive.it) o al seguente indirizzo: Università Ca' Foscari Venezia, Responsabile della Protezione dei Dati, Dorsoduro 3246, 30123 Venezia (VE).

**3.Categorie di Dati Personali, Finalità e Base Giuridica.** Il trattamento ha ad oggetto i dati personali (dati anagrafici, *background* linguistico, profilo educativo) del partecipante. I predetti dati saranno raccolti attraverso la piattaforma Gorilla, da remoto. Il trattamento dei dati personali verrà effettuato con strumenti cartacei ed informatici, adottando misure tecniche e organizzative adeguate a proteggerli da accessi non autorizzati o illeciti, dalla distruzione, dalla perdita di integrità e riservatezza, anche accidentali.

Per la tutela della riservatezza dei partecipanti, i dati verranno successivamente privati dei riferimenti direttamente identificativi (ad es. nome e cognome, codice fiscale, etc.), in modo che non siano più immediatamente riconducibili alla persona a cui si riferiscono, e analizzati ai soli fini della realizzazione del suddetto progetto.

Le attività di ricerca sono svolte nell'ambito dell'esecuzione delle finalità istituzionali di ricerca scientifica dell'Ateneo, pertanto la base giuridica è rappresentata dall'art. 6.1.e) del Regolamento (“esecuzione di un compito di interesse pubblico”). Lei potrà revocare il suo consenso in qualsiasi momento senza subire alcun pregiudizio, scrivendo al Responsabile della Protezione dei Dati personali ai recapiti sopra indicati. L'Ateneo si asterrà dal trattare ulteriormente i predetti dati personali salvo sussistano motivi cogenti che legittimino la prosecuzione dello stesso.

**4. Tempi di Conservazione.** I dati saranno conservati per la durata del progetto e successivamente anonimizzati e conservati per 5 anni. I dati anonimizzati potranno essere impiegati in ulteriori progetti di ricerca.

**5. Destinatari e Categorie di Destinatari dei Dati Personali.** I dati raccolti saranno trattati dai ricercatori dell'Università e dai ricercatori impegnati nel progetto, che agiscono sulla base di specifiche istruzioni fornite in ordine alle finalità e modalità del trattamento medesimo, nonché da soggetti che forniscono servizi ausiliari all'Università nominati 'responsabili del trattamento'. La lista aggiornata dei responsabili del trattamento è disponibile alla pagina: <https://www.unive.it/pag/34666/>.

I dati, in forma aggregata ed anonima (in modo da non renderla identificabile), potranno inoltre essere comunicati ad altre Università o enti per lo svolgimento delle attività di ricerca e diffusi per attività di disseminazione dei risultati (ad es. in pubblicazioni, rapporti di ricerca, banche dati nonché citazioni durante lezioni, seminari e convegni). Potranno altresì esaminare tutta la documentazione (comprensiva dei dati identificativi dei partecipanti) raccolta nell'ambito del progetto sia organismi nazionali e internazionali sia comitati delle riviste scientifiche italiane e straniere al fine di controllare che la ricerca sia condotta correttamente e in conformità alle disposizioni vigenti, nonché eventuali auditor.

**6. Diritti dell'Interessato e Modalità di Esercizio.** Lei potrà esercitare nei confronti dell'Università tutti i diritti previsti dagli artt. 15 e ss. del Regolamento; in particolare, potrà ottenere: l'accesso ai dati personali, la loro rettifica o integrazione, la cancellazione (c.d. "diritto all'oblio"), la limitazione e l'opposizione del trattamento. La richiesta potrà essere presentata, senza alcuna formalità, contattando direttamente la Principal Investigator Anna Cardinaletti all'indirizzo [cardin@unive.it](mailto:cardin@unive.it) e/o il Responsabile della Protezione dei Dati all'indirizzo [dpo@unive.it](mailto:dpo@unive.it) ovvero inviando una comunicazione al seguente recapito: Università Ca' Foscari Venezia – Responsabile della Protezione dei dati, Dorsoduro 3246, 30123 Venezia. In alternativa, è possibile contattare l'Università, scrivendo a PEC [protocollo@pec.unive.it](mailto:protocollo@pec.unive.it).

Inoltre, se ritiene che i dati personali siano stati trattati in violazione a quanto disposto dal Regolamento, potrà fare reclamo al Garante per la Protezione dei Dati Personali o adire le opportune sedi giudiziarie.

## APPENDIX B

### BLP

ITA1 - Da quando hai iniziato a parlare *italiano*?

SPA1 - Da quando hai iniziato a parlare *spagnolo*?

ITA2 - A quanti anni hai iniziato a sentirti a tuo agio parlando *italiano*?

SPA2 - A quanti anni hai iniziato a sentirti a tuo agio parlando *spagnolo*?

ITA3 - Per quanti anni hai ricevuto un'istruzione (grammatica, storia, matematica, etc..) in *italiano* (a partire dalla scuola primaria fino all'università)?

SPA3 - Per quanti anni hai ricevuto un'istruzione (grammatica, storia, matematica, etc..) in *spagnolo* (a partire dalla scuola primaria fino all'università)?

ITA4 - Quanti anni hai vissuto in un Paese in cui si parla *italiano*?

SPA4 - Quanti anni hai vissuto in un Paese in cui si parla *spagnolo*?

ITA5 - Quanti anni hai trascorso in famiglia parlando *italiano*?

SPA5 - Quanti anni hai trascorso in famiglia parlando *spagnolo*?

ITA6 - Quanti anni hai trascorso in un posto di lavoro in cui si parla *italiano*?

SPA6 - Quanti anni hai trascorso in un posto di lavoro in cui si parla *spagnolo*?

ITA7 - In una settimana normale, in che percentuale (di tempo) fai uso dell'*italiano* con **i tuoi amici**?

SPA7 - In una settimana normale, in che percentuale (di tempo) fai uso dello *spagnolo* con **i tuoi amici**?

In una settimana normale, in che percentuale (di tempo) fai uso di *altre lingue* con **i tuoi amici**?

ITA8 - In una settimana normale, in che percentuale (di tempo) fai uso dell'*italiano* con **la tua famiglia**?

SPA8 - In una settimana normale, in che percentuale (di tempo) fai uso dello *spagnolo* con **la tua famiglia**?

In una settimana normale, in che percentuale (di tempo) fai uso di *altre lingue* con **la tua famiglia**?

ITA9 - In una settimana normale, in che percentuale (di tempo) fai uso dell'*italiano* con **al lavoro**?

SPA9 - In una settimana normale, in che percentuale (di tempo) fai uso dello *spagnolo* con **al lavoro**?

In una settimana normale, in che percentuale (di tempo) fai uso di *altre lingue* con **al lavoro**?

ITA10 - Quando parli **con te stesso**, con quale frequenza parli *in italiano*?

SPA10 - Quando parli **con te stesso**, con quale frequenza parli *in spagnolo*?

Quando parli **con te stesso**, con quale frequenza parli *in altre lingue*?

ITA11 - Quando fai calcoli contando, con quale frequenza **conti** *in italiano*?

SPA11 - Quando fai calcoli contando, con quale frequenza **conti** *in spagnolo*?

Quando fai calcoli contando, con quale frequenza **conti** *in altre lingue*?

ITA12 - Come parli italiano?

SPA12 - Come parli spagnolo?

ITA13 - Capisci l'italiano?

SPA13 - Capisci lo spagnolo?

ITA14 - Come leggi in italiano?

SPA14 - Come leggi in spagnolo?

ITA15 - Come scrivi in italiano?

SPA15 - Come scrivi in spagnolo?

ITA16 - Mi sento "me stesso" quando parlo italiano.

SPA16 - Mi sento "me stesso" quando parlo spagnolo.

ITA17 - Mi identifico con una cultura italoфона.

SPA17 - Mi identifico con una cultura ispanofona.

ITA18 - Per me è importante raggiungere e usare l'Italiano a livello nativo.

SPA18 - Per me è importante raggiungere e usare lo Spagnolo a livello nativo.

ITA19 - Voglio che gli altri pensino che io sia un parlante nativo di Italiano.

SPA19 - Voglio che gli altri pensino che io sia un parlante nativo di Spagnolo.