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EXPRESSION OF FUTURITY BY SPANISH SECOND LANGUAGE LEARNERS
AND HERITAGE SPEAKERS

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ABSTRACT OF THE DISSERTATION

Expression of futurity by Spanish second language learners and heritage speakers

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The expression of futurity is a prime example of linguistic variation and is conditioned by linguistic and external constraints. The expression of futurity by native speakers (NS) of Spanish has been extensively investigated (e.g., Orozco, 2004, 2007, 2018; Sedano, 1994; Silva-Corvalán and Terrell, 1989). Several studies have focused on the analysis of the periphrastic (PF) and morphological (MF) future forms, while others have included the present indicative (PI). However, studies have not adopted a functionalist, concept-oriented approach (e.g., Bardovi-Harlig, 2007; Kanwit, 2014; von Stutterheim and Klein, 1987) when examining how this linguistic function is used (i.e., adopting a semantics-based view of syntax and morphology, examining all forms that express futurity: PF, MF, PI, and others). Furthermore, only a limited number of studies have examined the expression of futurity by second language (L2) learners (e.g., Gudmestad and Geeslin, 2013; Kanwit, 2014), and heritage speakers (HS) (e.g., Gómez Soler and de Prada Pérez, 2016).

In order to address these gaps, the present mixed-methods study examined future time expression among 48 L2 learners (20 intermediate-mid, 14 intermediate-high, 14

advanced) and 40 HSs (5 intermediate-mid, 14 intermediate-high, 21 advanced). Participants completed an interview protocol, a preference task, and a metalinguistic awareness questionnaire. Overall, the data revealed that both L2 learners and HSs favored the PF, LF, and PI and produced a significantly lower rate of the MF, subjunctive, conditional and other verb forms when expressing futurity in Spanish. The developmental patterns regarding the expression of futurity were largely similar in L2 learners and HSs. However, there were differences between the two groups in the frequency of use of certain verb forms. The analysis also revealed that the verb forms employed to express futurity were conditioned by linguistic constraints (temporal distance, type and quantity of temporal adverbials, clause type, semantic type of verb, and markers of certainty) and external constraints (exposure to Spanish dialect, formal education in Spanish, and gender). At the metalinguistic level, overall L2 learners exhibited a more formalized way of explaining their choices based on textbook or instructional-related matters. The study concludes that L2 learners and HSs use a wide variety of verb forms to express futurity, which may reflect the input they are exposed to as well as their language acquisition process. The results and contributions are discussed in the framework of the functionalist approach, grammaticalization, second and heritage language acquisition, and pedagogical implications.

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CHAPTER 1: INTRODUCTION

1.1. Statement of the problem, rationale, and scope

The term “future” is used to describe events and states that refer to a time posterior to the present (e.g., Comrie, 1976, 1985; Reichenbach, 2005; Silva-Corvalán and Terrell, 1989). The expression of futurity¹ in Spanish has undergone a process of grammaticalization. That is, the verb forms that speakers employ in future contexts have evolved throughout the years. Currently, the expression of futurity in Spanish is a linguistic variable which can be expressed by variants like the periphrastic future (PF), the morphological future (MF), or the present indicative (PI).

A considerable number of studies have examined the expression of futurity in native speakers (NS) of Spanish (e.g., Gutiérrez, 1995; Méndez Vallejo, 2008; Orozco, 2004, 2007, 2015; Sedano, 1994; Silva-Corvalán and Terrell, 1989). Scholars have traditionally concentrated on the analysis of frequencies of use of the PF and the MF (e.g., Bauhr, 1992; Blas Arroyo, 2008; Méndez Vallejo, 2008; Sedano, 1994). Other studies have examined the expression of futurity as a tripartite structure, including the PI (e.g., Orozco 2005, 2007, 2015; Claes and Ortiz López, 2011). Scholars have examined the frequencies of use of the aforementioned variants as well as their contexts of alternation, shedding light on the processes of language variation and change. Overall, current trends throughout the Spanish-speaking world suggest that the PF is the preferred form to express futurity, the use of the MF is declining, and the use of the PI in future contexts seems to be on the rise (e.g., Orozco, 2018). In addition, studies have revealed

¹ In this study, expression of futurity (or future time expression) refers to the mapping of a semantic notion onto verb forms. Thus, expression of futurity does not equal future tense, although future tense can be employed to express futurity. As will be explained below, in this study the dependent variable of expression of futurity does not include expressions beyond verbs.

that speakers' use of these verb forms is conditioned by linguistic (e.g., temporal markers, clause type) and external (e.g., dialect, gender) constraints.

This dissertation aims to build and expand on the aforementioned research by examining the expression of future verb forms in Spanish within a functionalist, concept-oriented approach (i.e., examining all forms that the study's participants used to express futurity in an interview protocol: PF, MF, PI, subjunctive, conditional, lexical future, and others). The goal is to document tendencies that reveal a comprehensive picture of the expression of this linguistic function.

The present dissertation analyzes the expression of futurity among two groups of bilinguals: second language (L2) learners, who started acquiring Spanish after puberty, and heritage speakers (HS), who have been exposed to Spanish from an early age. While a substantial body of research exists regarding the expression of futurity among Spanish monolingual native speakers, the field remains under-investigated in L2 learners (e.g., Geeslin and Gudmestad, 2010; Gudmestad and Geeslin, 2013; Kanwit, 2014) and HSs (e.g., Gómez Soler and de Prada Pérez, 2016) across proficiency levels.

In order to address these issues, the present study adopts a mixed-methods approach by quantitatively and qualitatively examining L2 learners' and HSs' production of futurity through the use of multiple protocols: an interview protocol, a preference task, a metalinguistic awareness questionnaire, and a language background questionnaire.

The goals of analyzing how L2 learners and HSs express futurity in Spanish are manifold. First, by employing a functionalist approach, the study will shed light on language variation and on the possible grammaticalization processes of the verbs employed to express futurity in a context in which Spanish is in contact with English. In

addition, a contrastive analysis of the tendencies in the L2 and HS groups may reveal differences in the development of variation in structure choice based on speakers' age of onset of bilingualism and varying degrees of experience of Spanish use and instruction, ultimately shedding light on the second language acquisition (SLA) of variable expressions and on possible pedagogical implications.

1.2. Research questions

To advance our knowledge of the expression of futurity in Spanish, the present study was guided by the following research questions (RQs):

RQ1. How do the developmental patterns of the expression of futurity compare in Spanish L2 learners and heritage speakers of different proficiency levels?

RQ2.a. What linguistic constraints (temporal distance, temporal adverbials, clause type, semantic type of verb, and markers of certainty) condition the use of future verb forms in L2 learners and HSs?

RQ2.b. What external constraints (exposure to Spanish dialect, formal education in Spanish, gender, and age) condition the use of future verb forms in L2 learners and HSs?

RQ3. What is the relationship between the production of future time forms and the metalinguistic awareness of L2 learners and HSs?

1.3. Outline of the dissertation

This chapter has introduced the statement of the problem, scope, rationale, and research questions that guide this dissertation. Chapter 2 presents a review of the

literature, focusing on the main theoretical frameworks and on the empirical research that guided the study. Chapter 3 describes the methodology employed in the study, providing a detailed description of the protocols that will shed light on the research questions. Then, Chapter 4 reports the results of the quantitative analysis of the production of expression of futurity and the results of the PT. Chapter 5 presents the findings of the metalinguistic awareness questionnaire. Next, Chapter 6 summarizes the results of the dissertation. Chapter 7 triangulates and discusses the findings yielded by the analyses in chapters 4 and 5. Finally, Chapter 8 concludes the dissertation with remarks on the limitations of the study and proposes suggestions for future research.

CHAPTER 2: REVIEW OF THE LITERATURE

This chapter is dedicated to reviewing the literature that informed the present study. I begin by describing the linguistic variable of expression of futurity in Spanish, outlining the main patterns of usage and current trends throughout the Spanish-speaking world. I also highlight the linguistic and external constraints that have been found to condition the variation in the expression of futurity. Then, I provide an overview of variation in structure choice and its acquisition in a second and heritage language as well as an outline of the current trends in this growing field. Lastly, I focus on the existing studies on the expression of futurity by Spanish language learners and heritage speakers and unveil the research questions of the present study.

2.1. Futurity in Spanish

This section provides an account of the expression of futurity in Spanish. I begin the section by introducing the theoretical framework of the study. Then, I describe the concept of futurity and present the verbal forms used to express future time in Spanish. Next, I review empirical research on the expression of futurity by native speakers of Spanish and outline the main patterns of usage and current trends throughout the Spanish-speaking world. Finally, I highlight the linguistic and external constraints that have been found to condition the expression of futurity and provide a summary of the section.

2.1.1. Theoretical framework

The present dissertation combines a variationist sociolinguistic approach with a functionalist approach to language in order to obtain a comprehensive picture of the

expression of futurity in Spanish. The study focuses on language variation, an area of research that explores how language users differ in their production and perception of linguistic forms, be it at the phonological, syntactic, lexical, or pragmatic levels.

Languages possess a range of resources for expressing a given concept or function², and a linguistic variable is the set of related forms which mean the same thing (Labov, 1972).

Specifically, the study focuses on the resources used for expressing the concept of futurity in Spanish (e.g., PF, MF, PI³, or subjunctive). The study of language variation has been extensively researched (e.g., Chambers, 2002; Díaz-Campos, 2011; Labov, 1966, 1972, among others). Numerous studies have demonstrated that language varies systematically according to linguistic constraints (such as the position of the variant in a context or the speech style) and external or social constraints (such as speakers' age, gender, or socioeconomic status). In other words, language variation is not free or random.

Language variation can be investigated by adopting different approaches. The form-oriented approach focuses on a particular form or forms (e.g., PF and MF) and analyzes their distribution in speech. In contrast, the concept- or function-oriented approach (e.g., Bardovi-Harlig, 2007; von Steutterheim and Klein, 1987) examines the full range of linguistic devices employed to express a function (e.g., examining all forms that express futurity: PF, MF, PI, and others). The present study adopts a functionalist approach that views language not as an independent formal system, but as a system that is molded by the functions performed by language (Mitchell and Myles, 2004). The reason

² In this study, the words “function” and “concept” will be used to refer to the semantic notion of future time (e.g., Von Steutterheim and Klein, 1987; Bardovi-Harlig, 2007). In other words, in this study the word “function” is not used as a grammatical term.

³ As noted in the introduction, PF stands for periphrastic future, MF stands for morphological future, and PI stands for present indicative. These acronyms will be used throughout the rest of the study.

for adhering to a functionalist approach is that Spanish offers a range of options to convey futurity and therefore an *a priori* list of forms used to express futurity may not yield the most comprehensive picture. Bardovi-Harlig (2007) notes that considering all possible forms is especially relevant in the study of the interlanguage of L2 learners. The next sections will present the different verbal forms that are used to express future time in Spanish as well as the constraints conditioning their use.

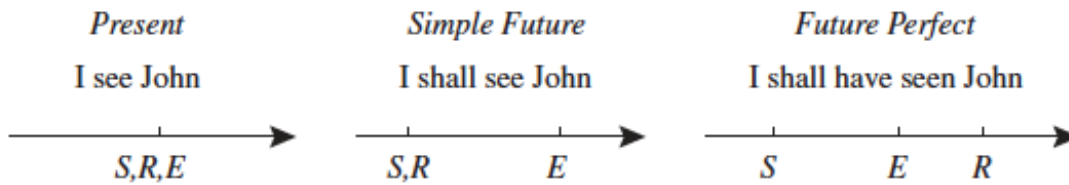
2.1.2. Expression of futurity in Spanish

The term “future” is used to describe events and states that are posterior to the moment of speech (Comrie, 1976, 1985; Reichenbach, 2005), that is, referring to a time posterior to the present (Silva-Corvalán and Terrell, 1989). As is the case with past-time expression, this displacement from speech time usually requires the use of temporal marking, which can be expressed via multiple forms. To locate events in time, languages may mark verbs for tense and aspect⁴, or they can rely on lexical and contextual features.

Reichenbach (2005) states that tenses determine time with reference to the time of the utterance. Reichenbach developed a system of symbolic logic in which three elements are involved in the description of tenses: point of speech (S), point of event (E), and point of reference (R). Figure 1-1 illustrates the three aforementioned elements through the representation of present and future tense. In the examples, the direction of time is represented as the direction of the arrow from left (past) to right (future).

⁴ “It is relatively rare for a language to totally lack any grammatical means for marking the future. Most languages have at least one or more weakly grammaticalized devices for doing so.” (Dahl and Velupillai, 2013).

Figure 1-1. Representation of present and future tense (Reichenbach, 2005, p. 72)



As seen in Figure 1-1, in present tense the point of speech, the point of event, and the point of reference are simultaneous and therefore located in the same point in the arrow. In simple future tense, the point of event is a time after both the point of speech and the point of reference and is therefore located to the right of the point of speech. In the example of the future perfect tense ('I shall have seen John.') the time order expressed in the tense does not concern one event, but two events. Reichenbach refers to these time points as the point of the event and the point of reference. In the example, the point of the event is the time when I will see John, whereas the point of reference is a time after the point of event. In an isolated sentence like 'I shall have seen John.' it is not clear which time point is used as the point of reference. This determination is provided by the context of speech and is often expressed by temporal markers such as tomorrow, or Thursday. In the example provided, the point of reference could be next week, next month, next summer, etc. This study analyzes the expression of futurity as a function that expresses an event that takes place after the moment of speech and reference.

Specifically, the study analyzes the expression of futurity in cases in which there is a verb in the utterance and in which the point of event and the point of reference coincide. It is important to note that Reichenbach's system is not without limitations. As the author (2005) notes, we should not be astonished if actual language does not always fit the schema which we try to construct in symbolic logic. In this regard, other scholars (e.g.,

Bauhr, 1992; Dahl, 1985; Palmer, 1986) posit that the future differs from the present and the past in that we cannot perceive the future directly. For this reason, when it comes to the future, tense and mood are intertwined. This blurry distinction between tense and mood in future time expression has linguistic consequences regarding the semantics of TMA systems (Dahl, 1985). In a similar line of thought, Jaque (2012) proposes that it is necessary to complement Reichenbach's logical-temporal explanation of verbal systems with modality.

Comrie (1976, 1985) offers another definition of tense in which he defines it as the grammaticalization of location in time. There is a range of variation found in tense systems across the languages of the world. For instance, tense markers derived from spatial expressions like the periphrastic future (e.g., *Juan va a leer el libro*. 'Juan is going to read the book.') are an example of grammaticalization of future time. In Spanish and other Romance and Germanic languages, future tense is not obligatory to express futurity and futurity can be expressed using lexical resources. An example of this phenomenon is the expression of futurity using the simple present, which may be disambiguated by lexical markers such as temporal adverbials (e.g., *leo mañana*. 'I read tomorrow.').

Having conceptually described futurity, I now turn to define the unit of analysis of expression of futurity in this study as well as the verbal forms employed to express future time in Spanish (understood as the simple future in Reichenbach's terms). Following a functionalist, concept-oriented approach described in the previous section, the analysis will include all verbal forms conveying the semantic notion of future time⁵. That is, this study focuses on the relationship between meaning and form (semantics-based view of

⁵ Following Edmonds, Gudmestad, and Donaldson (2017), Gudmestad and Geeslin (2011, 2013), and Kanwit (2014), each predicate that is supplied in future time contexts will be coded for the marking of the verb.

syntax and morphology), and tense categories will be defined primarily in terms of the function they perform in a given context. Thus, the analysis of the expression of futurity was not restricted to the inflectionally-marked future tense. Since futurity is a semantic concept, we cannot isolate the meaning of verb forms from their context, and the analysis included all verbs forms that expressed futurity taking the context into account (i.e., taking into account adverbs that modify the verb temporally, and the temporal content of the question that participants were responding to). The analysis of the expression of futurity was restricted to the verbal domain.

The most common verbal forms used to express futurity in Spanish are the morphological future (MF), the periphrastic future (PF), and the present indicative (PI), as seen in (a), (b), and (c), respectively.

(1). (a) Correré mañana. (MF)

Run-FUT tomorrow

‘I will run tomorrow.’

(b) Voy a correr mañana. (PF)

go-PRS to run-INF tomorrow

‘I’m going to run tomorrow.’

(c) Corro mañana. (PI)

Run-PRS tomorrow

‘I run tomorrow.’

Additionally, other less frequent forms of expressing future time with respect to the time of speech have been documented in Spanish. For example, the lexical future (LF) expresses futurity by combining a modal verb denoting desire or obligation

conjugated in the present indicative followed by an infinitive (Bardovi-Harlig, 2004; Gutiérrez, 1995; Jaque, 2017), as seen in (d). The present subjunctive in nominal subordinate clauses (e), *ir* ‘to go’ + gerund (f), and present progressive (g) can also be used in future-time contexts (e.g., Aponte Alequín and Ortiz López, 2010; Claes and Ortiz López, 2011; Gutiérrez, 1995). I created the examples below to illustrate the expression of futurity with the verb *correr* ‘to run’ using the different verb forms.

(d) Mañana tengo que correr.

Tomorrow have-AUX to run-INF

‘I have to run tomorrow.’

(e) Ojalá corra mañana.

If only run-SBJV-PRS tomorrow

‘If only I run tomorrow.’

(f) Espérame, que voy corriendo.

Wait-IMP-me, that go-PRS.1ps run-PTCP-PRS

‘Wait for me, I’m running.’

(g) Mañana a estas horas estoy corriendo.

Tomorrow at these times am-AUX-PRS running-PTCP-PRS

‘Tomorrow at this time I am running.’

As abovementioned, the present study focuses on expression of futurity understood as simple future in Reichenbach’s terms. That is, the study analyzed cases where the point of event and the point of reference coincide and follow the point of speech (as in a-g). Expression of future time in cases where the point of reference is different to the point of event (e.g., present perfect or future perfect) was not examined.

In addition, it is important to note that verbal forms with future tense marking that do not convey future meaning in the context of the utterance were not included in the analysis either. For example, it is common in Spanish to employ the MF to express probability (e.g., *estará cansado*. ‘he could be tired.’). This epistemic use of the MF was not part of the analysis of the present study.

Several sociolinguistic studies have explored the expression of futurity in Spanish in the last decades (e.g., Bauhr, 1992; Blas Arroyo, 2008; Moreno de Alba, 1970; Orozco, 2005, 2007; Sedano, 1994; Silva-Corvalán and Terrell, 1989, among others). As Geeslin (2011) notes, the first studies were qualitative in nature and employed an ethnographic approach, while more recent studies have been empirical and guided by a quantitative approach. A great number of scholars examining the expression of futurity in Spanish have focused on the analysis of frequencies of use of the MF and the PF (e.g., Bauhr, 1992; Blas Arroyo, 2008; Méndez Vallejo, 2008; Sedano, 1994), while others have included the PI, examining expression of futurity as a tripartite linguistic structure (e.g., Gutiérrez, 1995; Orozco, 2005, 2007, 2015; Osborne, 2008). The section that follows will review the literature on the expression of futurity by Spanish monolingual native speakers, highlighting current trends.

2.1.3. Empirical research on future expression in the Spanish-speaking world

Having presented expression of futurity understood as simple future in Reichenbachian terms, I now proceed to review the literature on future time expression in different regions of the Spanish-speaking world. The review was largely obtained from variationist studies relying on corpora and sociolinguistic interviews. Methodologies

differ between studies (e.g., different sources for data, or different operationalization of variables), and therefore studies are not entirely comparable. The literature on Spanish monolingual speakers will help situate the results of the L2 and HS groups.

Although future-time expression differs across varieties of Spanish, two main trends are found in the recent literature on the expression of futurity throughout the Spanish-speaking world: (1) the PF is the preferred form to express futurity and its use is on the rise (e.g., Orozco, 2007, 2015, 2018; Sedano, 1994), and (2) the use of the MF is declining, especially in oral mode (Cartagena, 1995; Jaque, 2012). The preference for the PF to express futurity has been documented across the Spanish-speaking world, including Chile (Jaque, 2017; Silva-Corvalán and Terrell, 1989), Puerto Rico (Claes and Ortiz López, 2011), Colombia (Orozco, 2005, 2007), Mexico (Gutiérrez, 1995; Lastra and Martín Butragueño, 2010), Venezuela (Sedano, 1994), the Dominican Republic (Silva-Corvalán and Terrell, 1989), and Spain (Blas Arroyo, 2008; Díaz Peralta and Almeida, 2000). For instance, Sedano (1994) set out to explore the distribution of frequencies of use of the MF and the PF in Venezuela as well as the linguistic constraints conditioning their use. Sedano analyzed 120 interviews recorded in the 1980s and found that the frequency of use of the PF by informants was 80.4%, a percentage four times higher than the 19.6% use of the MF. Regarding the constraints conditioning the expression of futurity, Sedano found that speakers tended to favor the MF in contexts referring to distant time, doubt, and uncertainty. In contrast, the PF was preferred in immediate contexts and contexts expressing certainty. It is important to note that the PF has also been found to be the preferred form to express futurity in other Romance languages such as French (Poplack and Turpin, 1999) and Portuguese (Poplack and Malvar, 2007;

Thomas, 1969).

The preference for the PF in Spanish is even more marked in the Colombian, Dominican, and Puerto Rican communities in New York City (NYC) and in other parts of the US where speakers are in contact with English (e.g., Orozco, 2004, 2007, 2015; Zentella, 1997). For example, Orozco (2007) analyzed the expression of futurity in 20 Spanish monolingual residents in Barranquilla (Colombia) and 20 Colombian residents in the NYC area and found that participants in Barranquilla employed the PF with a frequency of 45.9% in the sociolinguistic interviews, while the frequency of use of the PF among Colombians living in NYC was 62.5%. These tendencies found in sociolinguistic interviews suggest that the change towards a preference for the PF is accelerated when Spanish is in contact with English.

Although the overwhelming majority of the research finds that the PF is the preferred form to express futurity, there are two regions in Spain where the MF registers strikingly high use compared to the PF: The Canary Islands (i.e., Almeida and Díaz Peralta, 1998) and the Valencian Community (i.e., Blas Arroyo, 2008). In the Castellón region of the Valencian Community of Spain, Blas Arroyo performed a corpus study and analyzed 191 interviews. The results showed a high use of the MF (46% compared to 54% use of PF). Blas Arroyo (2008) proposed that the high rate of use of the MF in Castellón may be due to language contact with Catalan, a language where the PF tends to be avoided because it becomes confused with the preterit in oral speech. In other words, according to the author, language contact appears to lower the rate of change towards the PF in the expression of futurity in this region. However, this hypothesis has not been substantiated. More research is needed to uncover the current status of future expression

in other regions of Spain.

With the exception of the two Spanish regions mentioned above, the use of the MF is considered to be in decline, registering low frequencies in numerous parts of the Spanish-speaking world (e.g., Orozco, 2015; Sedano, 1994; Silva-Corvalán, 1994). For example, Osborne (2008) observed that the MF accounted for 14.7% of future time reference in Andalusia (Spain), Claes and Ortiz López (2011) found that the MF accounted for 7.4% of future time expression in San Juan (Puerto Rico), and Jaque (2017) reported that the MF was used in only 0.5% of expressions of futurity in a 2009 corpus generated in Chile. As is the case with the rise of the PF, the pattern of low frequencies of use of MF seems to be accelerated in Spanish that is in contact with English in the United States. The figures in Table 2-1 illustrate the decline of the use of MF and its acceleration in US Spanish, focusing on studies examining Puerto Rican speakers.

Table 2-1. Distribution of futurity variants in Puerto Rico and New York City (Orozco, 2015, p. 357)

Community	MF	PI	PF
Puerto Rico (Silva-Corvalán and Terrell, 1989)	20.9%	4.2%	74.9%
San Juan, Puerto Rico (Claes and Ortiz López, 2011)	7.4%	20.1%	72.5%
New York Puerto Ricans (Orozco, 2015)	4.1%	17.2%	78.7%

The first study in Table 2-1 is by Silva-Corvalán and Terrell (1989), who explored the expression of futurity in the Caribbean. For Puerto Rico, they examined interview data from the corpus “Estudio coordinado de la norma lingüística culta” (Lope Blanch, 1977). The analysis revealed a 20.9% use of the MF in the interviews with speakers from San Juan (compared to 4.2% for the PI and 74.9% for the PF). The second, more recent

study is by Claes and Ortiz López (2011). Claes and Ortiz López performed a corpus study of the expression of futurity in San Juan with the goal of examining the pragmatic and social constraints that conditioned its use. The authors analyzed 29 interviews from the PRESEEA corpus and found a 7.4% use of the MF (compared to 20.1% for the PI and 72.5% for the PF). In other words, the frequency of use of the MF was roughly 50% lower than in Silva-Corvalán and Terrell's 1989 study (although the difference may be partly due to the overall higher educational level of informants in the 1989 study). The third and most recent study is by Orozco (2015), who set out to explore the state of Puerto Rican Spanish in contact with English in NYC. Orozco observed a 4.1% use of the MF in future time contexts among Puerto Ricans living in NYC (versus a 17.2% use of PI and a 78.7% use of PF). In sum, the three previous studies suggest a tendency towards a restricted use of the MF that is accelerated in situations where Spanish is in contact with English. However, more data is needed to ascertain whether this phenomenon is also observed in other populations (e.g., Cubans and the Dominicans living in the US).

The two trends described above regarding the PF and the MF suggest that the expression of futurity is undergoing change (e.g., Orozco, 2015). A phenomenon of grammaticalization appears to be in process: the PF seems to be on its way to becoming the default, unmarked expression of futurity in Spanish, while the MF and PI remain the marked forms. Orozco and Thoms (2014, p. 39) point out that “the current distribution of futurity variants appears to result from a process known as cyclicity, which affects verbal morphology and triggers a number of internal morphosyntactic adjustments”. As a result of cyclicity, the PF has acquired semantic functions that used to be associated with the MF. At the same time, the MF has also acquired new semantic domains; namely doubt,

indeterminacy, conjecture, probability and polite commands (e.g., Geeslin, 2011; Gutiérrez, 1995; Niño-Murcia, 1992; Silva-Corvalán, 1994).

As previously mentioned, a number of scholars have focused on the distinction of the MF and PF when studying the expression of futurity in Spanish, while others have analyzed futurity as a tripartite linguistic variable (i.e., examining MF, PF, and PI). However, as Silva-Corvalán and Terrel (1989) point out, the range of possibilities to express futurity in Spanish goes beyond the MF and the PF. Indeed, Gutiérrez (1995) found instances of use of the subjunctive, conditional, lexical future, and other forms in future time contexts in a corpus generated in the Southwest of the United States. More recently, Jaque (2017) found roughly 40% of use of the LF in a 2009 corpus from Chile. Further, data from Orozco and Thoms (2014) suggests that restricting the analysis to the MF and PF may miss close to 20% of cases of expression of futurity. The authors performed a meta-analysis of the verb frequencies employed to express futurity, combining data from studies that have examined futurity as a tripartite linguistic variable in Spanish-speaking countries and the US. The meta-analysis revealed that the MF accounted for only an average of 11.4% of future time references, the PI averaged a larger use accounting for 17.8% of verbal future markers, and the PF was found to be overwhelmingly preferred, averaging 70.8%. Although the PI averaged a 17.8% frequency use in these studies and appears to have become the second preferred form to express future time in Spanish, this form has often not been examined in the literature of future expression. In contrast, this dissertation adopts a functionalist approach. That is, the study aims to examine the totality of the verb forms used to express futurity (defined as the grammatical function that expresses the event that takes place after the moment of

speech). The reason for adhering to a functionalist approach is to obtain a comprehensive picture of expression of futurity throughout the Spanish-speaking world.

This section has presented the current trends regarding the expression of futurity throughout the Spanish-speaking world, focusing on the frequencies of use of the different verbal forms that express future time. As mentioned earlier in the section on variation theory, language variation is not free (e.g., Labov, 1966). That is, there are linguistic and social constraints that condition the use of the forms employed to express future in Spanish. The section that follows presents the main constraints that have been found to condition the expression of futurity.

2.1.4. Constraints conditioning the expression of futurity in Spanish

As seen in the previous section, Spanish possesses a range of linguistic resources for expressing futurity. Beginning with Labov (1966), numerous studies have demonstrated that language varies systematically according to linguistic and social constraints. This section provides an overview of several of the factors conditioning the expression of futurity in Spanish, first regarding linguistic constraints, and then regarding social constraints. The linguistic constraints to be reviewed and examined in this dissertation can be grouped according to whether they are of a semantic or grammatical nature. The semantic constraints are temporal distance, temporal markers, and certainty. Constraints of grammatical nature include clause type and semantic type of verb.

The constraint of temporal distance, one which I propose to examine, measures how far in the future an event will occur, that is, how remote it is in time from the time of utterance (Comrie, 1985). Going back to Reichenbach's (2005) representation of tense in

Figure 1-1, we observe that in future tense the point of event is located to the right of the point of speech in the timeline. Temporal distance refers to how far to the right from the point of speech the point of event is located. For instance, an event can occur in the immediate future, in the near future (e.g., next weekend), or in the long future (e.g., in 10 years). All three examples would be located to the right of the point of speech; however, the immediate future would be located closer to the point of speech, while the distant future would be located farther to the right. Although temporal distance has been operationalized in different ways, there seems to be a consensus that the MF is more likely to occur in the distant future, and the PF and the PI tend to be used in the near future (Blas Arroyo, 2008; Lastra and Martín Butragueño, 2010; Orozco, 2005; Sedano, 1994).

Another constraint I propose to examine is that of certainty. (Un-)certainty is an unavoidable implication of the future, since we cannot know for sure what will eventually happen (Dahl, 1985; Nuyts, 2001; Palmer, 1986). Certainty belongs to the realm of epistemic modality, which is concerned with speakers' assumptions or assessments of possibilities, specifically regarding confidence in the truth of the propositions expressed (Coates, 1983). In his study on how the mental representation of reality relates to its expressions in the human language, Nuyts (2001) defines epistemic modality as "(the linguistic expression of) an evaluation of the chances that a certain hypothetical state of affairs under consideration will occur (...)" (p. 22). In other words, certainty refers to speakers' attitude or assessment toward the probability or possibility of an event happening (Sedano, 1994). This estimation of the likelihood of an event occurring can be situated on a continuous scale that ranges from complete conviction, to neutrality, to

doubt. For example, the speakers' confidence in the truth implies high certainty. As Blas Arroyo (2008) and Sedano (1994) point out, it is not possible to access speakers' inner beliefs, which makes it difficult to ascertain speakers' degree of confidence about an event happening in the future. Therefore, linguistic studies often employ contextual data (i.e., markers) when available to classify instances of futurity regarding certainty. The set of (un-)certainty markers varies from corpus to corpus (Marqués Aguado, 2008). This study measured certainty regarding futurity focusing on the types of epistemic certainty markers examined by Nuyts (2001): modal sentence adverbs (e.g., *probablemente* 'probably'), predictive adjectives (e.g., *es probable que* 'it is probable that'), mental state predicates (e.g., *pensar* 'to think' or *creer* 'to believe'), and modal auxiliaries (e.g., *puede* 'may'). Note that in this study the verbal markers used to express (un-)certainty (an independent variable in the study) are not the verbs used to express futurity (the dependent variable). In sum, we can assume a speaker is certain about the propositional content of an utterance when he or she employs epistemic certainty markers that express that the speaker is confident about the truth of a proposition.

Although the operationalization of the constraint of certainty is not uniform across studies on future time expression, there appears to be a relationship between the expression of certainty and the use of the PF and the PI in monolingual speakers of Spanish (Aaron, 2014; Almeida and Díaz Peralta, 1998; Blas Arroyo, 2008; Gudmestad and Geeslin, 2011; Lastra and Martín Butragueño, 2010; Sedano, 1994). Scholars have also suggested a relationship between uncertainty and the use of the MF in future time contexts (e.g., Díaz Peralta and Almeida, 2000; Sedano, 1994). Overall, on the continuum of epistemic modality, speakers choose MF when the uncertainty is the greatest (i.e., the

MF morpheme is syncretic with uncertainty), and the PI when they are more confident that the action will take place (Díaz Peralta and Almeida, 2000). Following Gómez Soler and de Prada Pérez (2016), certainty markers in this dissertation were analyzed using the following scale: high certainty (e.g., *obviamente* ‘obviously’), mid certainty (e.g., *creo que* ‘I think that’), and low certainty (e.g., *quizá* ‘perhaps’).

Another linguistic constraint examines whether lexical and adverbial temporal markers (i.e., non-verbal temporal indicators) influence the use of the future verb forms employed to express futurity. These temporal markers signal future time reference directly or explicitly (Cohen and Schwer, 2011) by means of adverbs (e.g., *mañana* ‘tomorrow’) and other lexical expressions (e.g., *en diez años* ‘in ten years’). This constraint is relevant because it sheds light on the process of grammaticalization. When a verb form does not need or very often appears without lexical or adverbial temporal markers, it can be considered an unmarked form to express futurity. In studies examining this linguistic constraint, the presence of a temporal adverbial or lexical marker has been found to favor the MF and to strongly promote the PI, while the absence of this kind of marker has been found to favor the PF (Aaron, 2006; Blas Arroyo, 2008; Gudmestad and Geeslin, 2011; Orozco, 2005, 2007). These results are not surprising. Since the PI lacks morphology referring to future time, language users rely on lexical marking to disambiguate meaning and express futurity. For instance, returning to the example in 2.c., we observe that *corro mañana* ‘I run tomorrow’ would be interpreted as present tense in the absence of the marker *mañana*. In contrast, the PF seems to have expanded its aspectual meaning to become temporalized and no longer needs lexical markers to disambiguate meaning (Orozco, 2015). In addition to the presence or absence of non-

verbal temporal markers, this study will examine the quantity and position of these type of markers to account for redundancy.

Now we turn to review the literature on the linguistic constraint of clause type, a constraint of grammatical nature. This constraint accounts for whether the verbs expressing futurity are produced in main or subordinate clauses. In Spain, both Blas Arroyo (2008) in Castellón and Díaz Peralta and Almeida (2000) in the Canary Islands found that the use of the MF was more frequent in main clauses and that a higher percentage of PF than MF appeared in subordinate clauses. Since the PF is the preferred form to express futurity and its use seems to be on the rise, Blas Arroyo (2008) suggests that the attraction of subordinate contexts may play a role in processes of linguistic change. Gudmestad and Geeslin (2011) also found that NSs of different Spanish-speaking countries favored the PF in subordinate clauses, while the PI and the MF were generally used in main clauses. In contrast, Kanwit and Solon (2013) found that speakers in Mérida (Mexico) and Valencia (Spain) favored PF and the PI in main clauses. This divergent finding regarding the PF may be due to the type of task: While the results regarding clause type in Blas Arroyo (2008) and Gudmestad and Geeslin (2011) stemmed from production tasks (interviews), Kanwit and Solon (2013) employed a 20-item written contextualized questionnaire.

The last linguistic constraint to be reviewed focuses on the semantic type of the verb. The most comprehensive study regarding this constraint is by Aaron (2006). In her study, Aaron studied the alternance of the PF and MF in Peninsular Spanish in written texts dating from the 18th to the 21st century and in an oral corpus from the 20th century. The constraint examining the semantic type of the verb was coded into five categories:

stative, movement, perceptive, psychological, and dynamic. Aaron observed that verbs denoting movement (like *ir* ‘to go’) favored the use of the PF more than other dynamic verbs. However, stative, psychological, and perceptive verbs disfavored the use of the PF. The author notes that this result aligns with the lexical origins of the PF that expresses movement (not stativity or psychological traits). In contrast, the data revealed that the use of the MF was preferred in stative or internal contexts. Another study that examined the effect of the semantic type of verb in the expression of futurity is by Blas Arroyo (2008). In line with Aaron (2006), in his study on the expression of futurity in Castellón (Spain), Blas Arroyo found that the use of the MF was favored with modals (like *querer* ‘to want’ and *poder* ‘to be able to’), possibly because the MF is related to a more contingent meaning. In his study, the MF was also favored in periphrases with aspectual content (e.g., *soler* ‘use to’ plus infinitive), and in verbs of perception (especially *ver* ‘to see’). In addition, Blas Arroyo found a positive association between the use of the MF and verbs of movement, specifically to the verb *ir* ‘to go’. The author attributes this association between the MF and the verb ‘to go’ to the historical evolution of this specific verb, which went from having a meaning fully related to movement to serving as an auxiliary verb in periphrases (PF). Thus, Blas Arroyo notes that it is possible that the conflict between the two aforementioned functions could restrict the use of *ir* to the PF, or it is also possible that speakers use the MF to express the verb ‘to go’ to avoid repetition. In sum, we find that the constraint of semantic type of verb reveals that the MF is preferred with stative and psychological verbs.

In addition to the aforementioned linguistic constraints, external constraints have been found to constrain the use of forms that express futurity as well. External constraints

are also referred to as extralinguistic since they are not intrinsically related to language (as opposed to linguistic constraints). In this study, external constraints include social constraints (such as gender, age, and dialect) as well as acquisitional constraints that affect language use (e.g., language proficiency and study abroad experience in the case of L2 and HS learners). This section will address the social constraints and the following section on the expression of futurity in L2 learners and HSs will review the literature on the acquisitional factors.

Several sociolinguistic factors trigger an understanding of language change (Labov, 1972). According to Chambers (2002), age is the primary social factor affecting language change. For example, Guy (1990) posited that, in situations of language change from below, innovations stemmed from the language registers of younger speakers. Regarding expression of futurity and age, in his study on Colombian and Puerto Rican Spanish in NYC, Orozco (2015) found that younger speakers favored the PF and disfavored the MF, while their elder counterparts exhibited the opposite pattern. Blas Arroyo (2008) also found that younger speakers in Castellón (Spain) disfavored the use of the MF more than the speakers in the older age groups. It follows that, if young speakers are linguistic innovators, it is possible that linguistic patterns in the younger populations could predict future trends in the expression of futurity. For this reason, this study investigates possible differences between the younger and the older participants.

The next social constraint to be reviewed is gender. In general, in sociolinguistic studies, women are generally the drivers of linguistic change (Díaz-Campos, 2011; Labov, 2001). Regarding the expression of futurity, Balestra (2006) studied the written expression of futurity in California and found that women used the PF more frequently

than men since the beginning of the XIX century. In addition, Balestra notes that the use of the PF accelerated towards the end of the XIX century and that the innovations introduced by women in the XIX century became the dominant variant used in the Spanish of the US Southwest and the rest of Spanish-speaking countries (e.g., Moreno de Alba, 1970; Silva-Corvalán, 1994). More recently, Orozco (2007) found that in New York City, women favor the PF while men favor the MF. In contrast, he found the opposite in Barranquilla (Colombia). Orozco noted that the opposite patterns with regards to expression of futurity and gender in the two social settings are consistent with Eckert's (1989) observation that "gender does not have a uniform effect on linguistic behavior for the community as a whole." The findings of the present study will help to shed more light on this matter.

Studies examining future expression in Spanish-speaking populations living in the United States (e.g., Orozco, 2007, 2015) have observed additional sociolinguistic constraints such as English proficiency, length of US residency, and age of arrival in the US. For example, Orozco (2007) examined the expression of futurity of Colombians living in NYC and found that speakers who had been living in NYC for over 10 years employed the PF with a higher frequency and the MF with a lower frequency than speakers that had been living in NYC for a shorter period of time. Since the goal of the present study is to examine the expression of futurity in L2 learners and HSs of three different proficiency levels, the factors of length of US residency and age of arrival in the US are not included in the analysis. In order to minimize diversity in the HS group, the HS participants of the present study were born in the US or migrated to the US when they were five years old or younger.

This section has provided an account of the expression of futurity in Spanish. The section has described that futurity in Spanish is expressed by the MF, the PF, the PI, and less frequently, by additional verb forms such as the lexical future or the present perfect. The PF is the preferred form to express future time throughout the Spanish-speaking world, a trend that is on the rise (e.g., Orozco, 2015). In contrast, the use of the MF is declining, with very few exceptions in areas of Spain still showing high frequencies of use (e.g., Almeida and Díaz Peralta, 1998). This section has also highlighted that linguistic and social constraints condition the use of forms to express future time. For example, the PF is favored in contexts of certainty and in the absence of lexical markers. The literature on the expression of futurity and the constraints conditioning its use in Spanish monolingual speakers informed the results of the L2 and HS groups of this study.

2.2. Variation in Spanish as a second language

In the last decades, a growing body of Second Language Acquisition (SLA) research has adopted a variationist approach, examining how L2 speech varies according to linguistic and social constraints (e.g., Bayley and Tarone, 2012; Geeslin, 2011; Kanwit, 2017; Preston, 1989; Tarone, 2007). In this section, I provide an overview of the acquisition of variation in structure choice in a second language as well as an outline of the current trends in this growing field.

2.2.1. Variation in a second language

Numerous studies have demonstrated that language use varies systematically according to linguistic and social constraints (e.g., Guy, 1990; Hudson, 1996; Labov,

1966, 1972; Lavandera, 1978; Orozco, 2005; Silva-Corvalán, 1994, 2001, among others). For example, the previous section illustrated how the field of variationist linguistics examines how Spanish native speakers differ in their production of future verb forms analyzing constraints such as temporal distance or Spanish dialect. SLA research has found that learners' L2 use varies in ways that are similar to native languages (e.g., Adamson and Reagan, 1991; Bayley and Preston 1996; Geeslin, 2011; Preston, 1989; Tarone, 1983, 2007). In addition, L2 learners' variation in structure or verb form choice is conditioned by factors such as language proficiency and the type of task performed (Geeslin and Gudmestad, 2008).

Learners' interlanguage (IL) is a system that is both systematic and variable (e.g., Tarone, 2007; Song, 2012). *Systematic* means that at any given time we can detect a rule-based nature in the IL (Corder, 1967), while *variable* means that at any given time learners may alternate forms depending on linguistic and extralinguistic factors (Ellis, 1985). In other words, there appears to be variability in the systematicity of IL. Regarding the representation of variation in the bilingual's mind, Fasold and Preston (2007) proposed a sociolinguistic model that shows two grammars. Each of the grammars has different variants that vary in three levels: at the sociolinguistic level, factors such as interlocutor and context systematically cause the learner to select one IL variant over another. At the linguistic level, factors such as semantics and the components of grammar (e.g., definiteness or specificity of the subject) constrain variation. Lastly, at the time of acquisition level, forms learned early in life are more internalized and automatic than forms learned later in life, which require more attention and control and cannot be accessed automatically.

Before delving further into the topic of L2 variation, I must define the concept of “variation”, since it is one of the main goals of the present study. A first type of variation is vertical, it is related to language development and refers to L2 variability between forms that are (non-)target-like. In other words, vertical variation happens when L2 learners variably produce certain linguistic forms that are produced invariably (categorically) by monolingual (L1) speakers. Vertical variation is related to instability in the representation of the linguistic forms. For instance, Spanish L2 learners may or may not mark adjectives with the feminine ending agreeing with a feminine noun, so that in contexts like *casa bonita* ‘beautiful-FEM house-FEM’, a learner may produce *bonita* ‘beautiful-FEM’ and *bonito* ‘beautiful-MASC’. A second type of variation is horizontal and occurs in both L1 and L2 between two or more native-like forms that exist and vary depending on linguistic and social factors (Rehner, 2002). For example, in Spanish, the MF and the PF can be employed to express futurity, and language users employ one form or another based on the presence of factors that constrain their use. In the horizontal variation example, the use of the PF and the MF is constrained by linguistic factors such as certainty and temporal distance, as well as by social factors such as age or dialect (which are some of the independent variables in this study). This study focuses on horizontal variation, which is part of the knowledge that learners possess about a second language (e.g., Preston, 2002; Tarone, 2007). The next section will explain how L2 learners acquire variation when the use of two or more forms varies depending on linguistic and social factors.

2.2.2. Acquisition of variation in Spanish as a second language

The field of acquisition of variation in structure choice in L2 Spanish has experienced considerable growth in recent years (Geeslin, 2011). Studies have explored variation in linguistic phenomena across proficiency levels across a range of learning contexts and different tasks. Several of the linguistic phenomena explored in L2 Spanish are subject expression (e.g., Geeslin, Linford, Fafulas, Long, and Díaz-Campos, 2013), copula contrast in the variable attributive contexts in the [copula+adjective] structure (e.g., Geeslin, 2003, 2010), differential object marking (e.g., Killam, 2011), subjunctive mood (e.g., Geeslin and Gudmestad, 2008; Gudmestad, 2012), future expression (e.g., Kanwit, 2014; Solon and Kanwit, 2014), past expression (e.g., Salaberry 2002, 2011), progressive verbs (e.g., Fafulas, 2013), direct object pronouns (e.g., Malovrh, 2008; Zyzik, 2006), and perception of aspiration (e.g., Schmidt, 2011). Variation in these linguistic phenomena can be considered horizontal variation since it depends on linguistic and social factors.

As Geeslin (2011) observes, language variation influences comprehension and production of a second language and therefore plays a key role in the process of SLA. IL is shaped as learners are exposed to patterns of co-occurrence in a language and form their probabilities regarding linguistic and social contexts that affect certain linguistic phenomena. That is, learners need to ascertain which variant of a linguistic variable is used when.

Regarding the expression of futurity, learners need to acquire the linguistic and external constraints on the use of the MF, PF, PI, and other verb forms to refer to the future. An important line of research focuses on the development of variation in structure

choice across different proficiency levels in a second language. Geeslin (2011) proposed three main stages of development. The first stage consists of single form to function mapping (Andersen, 1984). This stage is followed by a second stage of free variation that then becomes a more systematic variation in the third stage. I will illustrate this development sequence by outlining the stages of acquisition of the Spanish copula contrast *ser/estar* ‘to be’ in variable attributive contexts by English speaking learners of Spanish. First, learners tend to overgeneralize the use of *ser* in all contexts. That is, learners use *ser* both in contexts that require *ser* and in contexts that require *estar*. In the second stage, learners gradually incorporate *estar* into their L2 grammar. At the beginning of having both *ser* and *estar* in their grammars, learners may use both interchangeably, and they gradually acquire the constraints of use of each form. In the third stage, variation is systematic, although the linguistic and social constraints acquired may not necessarily be native-like.

When acquiring variation regarding concepts or functions whose expression is variable, L2 learners simultaneously modify two characteristics of their developing grammars (Geeslin, 2010). Learners modify both the frequency with which they use each variant (e.g., the two forms for the copular verb ‘to be’ in Spanish in attributive contexts) and the constraints that affect the selection of these variants (i.e., linguistic and social constraints). Because of the complexity of acquiring the constraints mentioned above, variation is acquired late. In spite of the difficulty, learners have been found to reach near native-like proficiency of variation (e.g., Gudmestad, 2012; Gudmestad and Geeslin 2013). Although L2 learners are able to reach near native-like proficiency, it is important to note that the development of variation in structure choice in L2 is not always linear

(Gudmestad, 2012; Kanwit, 2014). This phenomenon is known as U-shaped development in language acquisition (e.g., Carlucci and Case, 2013; Gómez Soler, 2013; Kellerman, 1983; Montrul, 2004). That is, learners may move from non-target-like to target-like use and then back to non-target like use before approaching native-like frequencies of use. This phenomenon is illustrated by Gudmestad (2012), who analyzed the IL of Spanish L2 mood use, looking at the linguistic and extralinguistic constraints involved and comparing learners' use to NSs' frequencies. The linguistic constraints in Gudmestad's study were form regularity, semantic category, time reference, and hypotheticality. The extralinguistic constraints were participant group and task type. Participants in the study were learners across five proficiency levels ($N=130$) and native speakers ($N=20$). They completed three oral production tasks in Spanish, a background questionnaire, and a proficiency test. Results showed that learners gradually acquire the predictors for mood use that are relevant for NSs. Interestingly, the frequency of subjunctive production decreased from proficiency level 3 to level 4 before increasing again at level 5, where learners reached native-like patterns of use. In sum, the development of the acquisition of L2 mood in Spanish was not linear.

It is important to note how the methodology for researching variation in L2 has evolved. Early research on L2 variation adapted research tools from sociolinguistics (e.g., Adamson and Regan, 1991), relying on recorded sociolinguistic interviews and analyzing the sociolinguistic constraints using the statistical package Varbrul. In the last decade, there has been a shift toward the use of both productive and receptive tasks to triangulate results due to studies finding task effects. An example of task effects is found in a study by Geeslin and Gudmestad (2008) exploring learners' acquisition of subjunctive mood.

Results suggested that participants selected the subjunctive mood more frequently in the written contextualized task than in the oral production task. In addition to employing different tasks, Geeslin (2011) noted that a great amount of emphasis has been placed toward defining the object of investigation by function. That is, instead of analyzing forms that express equivalent meaning, numerous studies now examine all forms that may express the same meaning at some point in time. For instance, regarding the expression of futurity, a functionalist approach such as the one employed in the present study examines all verb forms produced in future-time contexts instead of focusing on a set number of variants (e.g., MF and PF). Furthermore, as Kanwit (2014) observed, there has been a focus to systematically define independent variables, and a number of studies have used statistics with regression models that allow for dependent variables with multiple values.

Having presented an overview of the acquisition of variation in a second language, in the next section I will review empirical studies that illustrate this phenomenon. Specifically, the next section will thoroughly review the existing research on the acquisition of futurity in Spanish as a second language in order to inform this dissertation.

2.3. Expression of futurity in Spanish as a second language

This section reviews the empirical research on the expression of futurity by Spanish language learners. First, I describe the goals, methodology, and findings of existing studies and connect them to my project, highlighting a number of yet

unexamined factors. Then, I briefly outline the results of research on the acquisition of futurity in other Romance languages.

2.3.1. Acquisition of future expression in Spanish as a second language

As explained earlier, the linguistic function of expressing futurity in Spanish can be performed by multiple forms (PI, MF, and PF being the most frequent), the use of which is conditioned by linguistic and social constraints (e.g., Blas Arroyo, 2008; Orozco, 2015). In the last decade and a half, the field of second language acquisition has started examining the acquisition of this linguistic variable. Recent studies exploring the expression of futurity in L2 Spanish have found two main trends: (a) L2 learners use the MF significantly more frequently than NSs, and (b) learners use the PF less frequently than native speakers (e.g., Gudmestad and Geeslin, 2013). These results suggest that learners have internalized that expression of futurity is variable (i.e., it can be expressed using different verb forms). However, L2 learners' usage of futurity lacks the sociolinguistic competence of native speakers (Kanwit, 2014; Orozco and Thoms, 2014).

Geeslin and Gudmestad (2010) were the first to explore the acquisition of the expression of futurity in L2 Spanish as part of a project in which they set out to examine the range and frequency of occurrence of forms in five potentially variable functions. The authors examined the relationship between future-time expression and time abroad, years of study, and gender in a group of 16 advanced learners of Spanish (graduate students and instructors) and a control NS group. Participants completed a language background questionnaire, a discrete-item, multiple-choice grammar test, and a semi-structured sociolinguistic interview that asked about plans for the future, past, and

other topics. All questions in the interview were worded in the PI to prevent priming. Results showed that NSs produced a higher quantity of instances of futurity than L2 learners. There were additional differences between the two groups: L2 speakers produced higher frequencies of PF than NSs (75.9% compared to 59.0%), while NSs produced more MF (16.5% versus 8.8%) and subjunctive (11.3% versus 2.3%) when referring to the future. Participants in both groups used the conditional to express futurity in a limited number of instances. Results also revealed that the three external constraints examined (i.e., time abroad, years of study, and gender) played a role in the production of future verb forms. Regarding time abroad, L2 speakers who had spent one year abroad or more used the PF more and the MF and PI less than those who had spent less than a year abroad. Furthermore, L2 participants who had studied Spanish formally for nine years or more produced the MF in more instances than those with fewer years of learning. Lastly, both groups exhibited differences with regard to gender, although with different patterns: males in the NS group produced the MF more frequently than the NS females, and the male L2 speakers produced the PF more than their female counterparts.

Having demonstrated that advanced learners' language use is related to the extralinguistic factors of exposure to input and gender, Gudmestad and Geeslin (2011) examined how these speakers' use of future-time expression varied according to linguistic factors. The authors employed the same elicited spoken interview data as in the 2010 study described above and analyzed the following seven independent linguistic constraints: temporal distance, presence of a lexical temporal indicator (e.g., *mañana* 'tomorrow') conveying futurity in the sentence or preceding discourse, clause type, contingency, (un-)certainty, negation, and person/number. The results revealed that the

constraints of temporal distance, lexical temporal indicator, and clause type were related to the verb forms that both groups use to express futurity. In contrast, (un-)certainty, grammatical person and number only affected verb form use in the native speaker group. These results suggest that although learners had an advanced proficiency level of Spanish, they had not yet reached native-like use of variation regarding the expression of futurity.

Since one of the goals of this study is to examine the effect of lexical temporal markers on the expression of futurity, it is important to highlight the findings regarding lexical temporal indicators (LTI) in Gudmestad and Geeslin (2011). Overall, the pattern observed in the NS and L2 groups regarding lexical markers was similar: the PI was used more often with a LTI, while the PF was used more often in the absence of a LTI. The frequent use of a LTI with the PI is expected, since the PI carries no morphology signifying the future. The most notable result reported in the study is that L2 speakers only employed the PI when a lexical temporal indicator was present (e.g., *mañana* ‘tomorrow’), thus relying on LTIs to indicate futurity (i.e., 100% use of LTI with PI by L2 speakers compared to 84.4% use by NSs). In contrast, L2 speakers used the PF more often (in 56.0% of contexts) in the absence of a LTI. Temporal indicators did not seem to affect the frequency of use of the MF. In sum, the study demonstrated that, even at advanced proficiency levels, there are key differences between NSs and L2 learners in both the number of linguistic constraints included in their grammars and in the ways in which these linguistic constraints (e.g., temporal indicators) are employed. In other words, advanced learners failed to achieve native-like competence.

Gudmestad and Geeslin (2011) called for additional research that includes diverse

populations and employs tasks that focus explicitly on the relationship between certain linguistic constraints and the expression of future-time reference. These suggestions are part of the present dissertation, which includes heritage speakers of three proficiency levels as a population, as well as a task (the preference task) that focuses explicitly on the relationship between lexical temporal markers and expression of futurity.

While Gudmestad and Geeslin (2011) focused on advanced learners of Spanish, Solon and Kanwit (2014) explored the emergence of future verbal morphology and the development of future-time expression in beginner and intermediate learners. Specifically, the authors examined the use of the PI in future contexts and the initial form-meaning mappings learners create regarding future verb forms. Participants included 104 beginning and intermediate adult Spanish learners that were divided into five proficiency levels. The tasks of the study were an oral conversation task and a letter-writing task. Solon and Kanwit found that learners relied on the PI to express futurity in the early stages of development, which is expected, since beginner L2 learners use the strategy of connecting a single form to a single meaning (e.g., Andersen, 1984). As learner proficiency increased, so did the variety of forms that learners employed to express futurity. That is, learners moved from the one-to-one principle to multi-functionality in their expression of futurity. Results also suggest that the PF appears before the MF, which could be due to the PF being easier to conjugate (e.g., no irregular conjugation) and more frequent in the input than the MF. Interestingly, when the MF appears, there seems to be variation based in modality. In other words, future verbal morphology is used most often in written form than in oral form. The lexical future (LF) emerged alongside the MF and was rarely used.

Solon and Kanwit (2014) call for future studies that include native speakers, investigate the lexical resources learners may rely on to refer to future time (especially temporal adverbials), employ longitudinal data, and analyze instructional effects. Several of these suggestions are addressed in the studies reviewed next.

The research reviewed so far has focused on learners of a specific proficiency level (i.e., beginner/intermediate and advanced). The first analysis of the development of future-time expression in L2 Spanish was performed by Gudmestad and Geeslin (2013). The study examined how the frequency of selection of PI, PF, and MF develops across proficiency levels, as well as the linguistic constraints conditioning the selection of each form. Participants were 151 L2 learners divided into five proficiency levels (from beginner to almost native). In addition, 22 native speakers of Spanish served as a control group. The instrument of the study was a 30-item written contextualized questionnaire. Contexts in the questionnaire systematically varied according to the temporal distance of the event, the presence/absence of a temporal marker, and the presence/absence of a marker of (un-)certainty. Participants had to select their preference for the PF, MF, or PI in each context of the questionnaire. Results revealed that the frequency of selection of each verb form in the questionnaire changed as learners became more proficient in Spanish. Interestingly, the developmental pattern was not always linear: the selection of the PF slowly increased; however, the selection of the PI decreased and then increased, and the selection of the MF displayed the opposite pattern (i.e., it increased and then decreased). All proficiency levels selected the PF most often except for level 1, which favored the PI. The MF was the second most preferred form for levels 2-4, which may have been due to instructional effects. At level 5, near-native speakers selected the PI

more frequently than the MF, which was the least preferred form. The NSs in the control group selected the PF most frequently, followed by the MF and finally the PI. Thus, results indicate that no learner group showed native-like selection rates of all three forms, a finding that aligns with Gudmestad and Geeslin's (2011) findings for the advanced proficiency learners of their study. Regarding the acquisition of the constraints conditioning the expression of futurity, certainty appeared to be the first constraint to be acquired, being applied in a native-like manner at proficiency level 2. In contrast, the lexical temporal indicator constraint appeared to be acquired last, and it was not until the highest proficiency level (i.e., level 5) that the L2 learners behaved in a native-like manner. As I will describe shortly, the present study further examined lexical markers in the expression of futurity.

The most comprehensive work on the SLA of the expression of future to date is by Kanwit (2014). The study draws comparisons between 40 native speakers (20 NSs of English, 20 NSs of Spanish) and 105 Spanish learners across five proficiency levels. Participants completed an oral prompt response task, a contextualized preference task, and an allowable temporal distances task. In the oral prompt response task, participants read six prompts, which addressed future-time contexts (e.g., *Describe tus planes para este fin de semana* 'Describe your plans for this coming weekend'), and two distractors and were instructed to respond in oral form and record themselves after reading each prompt. In the contextualized preference task, participants read 20 contextualized items that together formed a story about a college student named Marcos. Each item had three possible completions that were identical except for the verb expressing futurity (PI, MF, and PF), and participants selected one option. Finally, in the allowable temporal distances

task, participants read 21 de-contextualized items and were asked to complete a sentence by selecting which of the temporal indicator(s) indicating five different time frames (e.g., *ahora mismo* 'right now') could be used to follow a particular predicate. The dependent variable in the study was the form of the verb used to express futurity (i.e., PI, MF, PF, and LF). Ten linguistic constraints were analyzed: temporal distance, temporal adverbials, clause type, person and number, lexical type, temporal morphology on the preceding verb, negation, certainty, contingency, animacy. The social constraints were the participant's sex, age, study abroad status, and nation of study abroad (or nation of origin for NSs).

One of the most important contributions by Kanwit (2014) is the proposed five developmental stages in the acquisition of future-time expression for Spanish language learners. Kanwit found that stage one is characterized by high rates of use of the present indicative as well as by frequent use of temporal adverbs. The author proposes that, in the absence of other productive verbal forms, L2 learners rely on lexical marking over morpho-syntactic marking (in line with previous literature on beginner level learners, e.g., VanPatten, 2004). Most linguistic constraints are not found to affect the use of future verb forms in stage one. However, temporal distance (operationalized as five temporal distances from the immediate future to at least one year in the future) does begin to play a role: While the PI is used especially with the immediate future, lexical futures seem to begin to mark more distant temporality. In stage two the use of MF increases, causing a decrease in the use of PI to express futurity. In stage two the use of PF is low, and more constraints condition the use of the forms employed to express futurity. In stage three, the use of the PF starkly increases, while the use of the MF and, to a lesser extent the PI,

decrease. Additional constraints (e.g., person/number) begin to constrain which form is used to express futurity. In stage four, frequencies remain similar to stage three, with the noteworthy finding that the PF becomes the preferred form to express futurity.

Additionally, the constraint of study abroad experience was found to be significant for the first time. Lastly, in stage five, the production of the MF and PF increases, while the use of the PI continues to decrease and is strongly restricted to linguistic contexts that include temporal adverbials. The role of temporal distance is expanded. In level five, all the study's predictors conditioning native speakers of Spanish have been added to the model of Spanish L2 speakers except for clause type (referring to whether the verb forms expressing future are located in main or subordinate clauses). Overall, the results suggest that, while all independent variables were gradually added to the groups' predictive models, L2 learners' production and acceptance of future verb forms diverged from NS norms even at the highest proficiency level.

2.3.2. Acquisition of future expression as a second language in French

This section will compare the results of studies on the acquisition of future time in Spanish with results from French, another Romance language. To date, two studies have examined the acquisition of futurity in L2 French by English native speakers. Moses (2002) performed a longitudinal study over the course of a year. Participants were 24 learners of French and the task consisted of an oral interview. Moses found that the PF appeared before the MF, which aligns with findings in Solon and Kanwit (2014). Results also revealed that the frequency of use of adverbials decreased as language proficiency increased.

In another study, Nadasdi, Mougeon, and Rehner (2003) examined interviews with high school immersion students in the Ontario region of Canada and found that French learners used the PF with the highest frequency to express future time (79%), followed by the MF (18%), and the PI (3%). These results pattern with the Spanish L2 learners in levels 2-4 in Gudmestad and Geeslin (2011). Overall, the acquisition of future expression in L2 French seems similar than its acquisition of L2 Spanish, with learners moving from one-to-one form to function mapping to multifunctionality and displaying a preference for the use of PF at higher levels, which patterns NS use. However, it is worth mentioning that the participants in the studies reviewed had English as their first language, and results may be different for learners with other native languages.

The previous studies on the acquisition of future expression in L2 Spanish all make significant contributions to the field. However, as Gudmestad and Geeslin (2011) and Kanwit (2014) point out, more research is needed. A topic that has not received enough attention is the use of lexical resources employed to express future time. While adverbs and temporal markers have been analyzed quantitatively, a comprehensive examination of their use has not been attempted. Another unexplored topic is the use of other strategies that learners employ when conveying future time. An example is circumlocution, which is the use of many words when fewer are sufficient. Circumlocution is a strategy to which L2 learners resort when they do not have the right words to express the meaning they intend. Other phenomena we may observe when L2 learners are trying to overcome a language barrier are hesitations (e.g., *no sé* 'I don't know'), pauses, and silence. One of the goals of the current study is to fill these gaps to provide a comprehensive picture of the strategies used by learners to express futurity. The

examination of these features is especially relevant in terms of documenting lower proficiency learners' expression of futurity, since they are the ones that are less expected to rely on morpho-syntax to communicate (VanPatten, 2004).

2.4. Expression of futurity in Spanish as a heritage language

After reviewing the studies on the acquisition of expression of futurity by L2 learners, this chapter shifts the focus to heritage speakers of Spanish. The reason for including HSs in the study is that a contrastive analysis of the tendencies in these two groups might be able to reveal differences in the development of variation based on speakers' age of onset of bilingualism and varying degrees of experience of Spanish use with the ultimate goal of shedding light on theories of the acquisition of the expression of concepts or functions whose expression is variable. With this goal in mind, this section is organized as follows: First, I will define the term heritage speaker. Then, I will highlight how HSs' linguistic and cultural experiences shape their language acquisition and command in a way that differs from that of monolingual and L2 speakers. Next, I will review empirical studies on the expression of futurity by HSs. Finally, I will summarize the gaps in the literature, outline the goals of the present dissertation and unveil the research questions that guide the study.

2.4.1. Defining heritage speakers

While a variety of definitions of the term heritage speaker have been suggested, this dissertation used the definition suggested by Valdés (2000), who describes HSs as language students who are raised in a home setting where a minority language is spoken

(in this case, Spanish), who speak or at least understand the language, and who are to some degree bilingual in Spanish and in English. Heritage speakers are early bilinguals and begin to learn the dominant language in early childhood at home, outside the home, or at school. In contexts like the US it is common for HS children to experience language shift to the societal dominant language when they start schooling (e.g., Goldenberg, 2008; Montrul, 2004; Polinsky, 1997). In other words, the heritage language becomes their weaker language and tends to lag behind in morpho-syntactic and lexical development compared to the HS's stronger language and even to monolingual norms (Montrul, 2012). As Montrul and Bowles (2009) point out, it is important to note that HSs are a heterogeneous group. For example, HSs' community type can be Spanish-dominant or English-dominant, which has a great influence on factors such as language use (e.g., whether a bilingual is balanced or unbalanced) and identity.

HSs' linguistic abilities differ from monolingual Spanish speakers, and several theoretical frameworks have been proposed to account for this phenomenon. First, the "incomplete acquisition" perspective that has been posited by Montrul (2014) maintains that the reason HSs never develop "full" knowledge of a given property in the heritage language (HL) is either due to transfer, reduced input conditions, or other factors. Attrition, on the other hand, refers to the loss of a property that was previously acquired. The incomplete acquisition account is not without criticisms and it has been argued that it cannot account for all HS divergence (Putnam and Sánchez, 2013; Rothman, 2007). Another explanation focuses on "missing input" (Pires and Rothman, 2009), which argues that some properties are not acquired by HSs simply because these properties are not a part of the input the HS is exposed to (e.g., inflected infinitives in Brazilian

Portuguese; Rothman, 2007). Alternatively, Potowski, Jegerski, and Morgan-Short (2009) assume that HSs' linguistic systems may be the result of any of the aforementioned processes to some extent.

More recently, Putnam and Sánchez (2013) proposed the Feature Activation Hypothesis, which argues that lower levels of activation of the HL for production and comprehension may result in lower levels of feature assembly for production at earlier stages and comprehension at advanced levels which coincide with language attrition or loss. In other words, as HSs activate the HL less and less, their "ability to recover the heritage grammar becomes exceedingly more difficult" (p. 879).

It is likely that different HS learners in the present study will exhibit all of the aforementioned phenomena to different degrees. For example, according to the missing input hypothesis (Rothman, 2007), we can hypothesize that HS participants' expression of futurity will differ from monolingual Spanish speakers since HSs are exposed to a variety of Spanish that is in contact with English (and, as described earlier, this contact variety appears to show a higher use of PF and lower use of MF than monolingual Spanish). It is also possible that different HSs will employ different rates of use of MF depending on the Spanish dialect they have been exposed to. To explore these phenomena, this study analyzed expression of futurity by HSs and compared it to monolingual NSs and L2 learners, taking into account factors such as quantity of language use, input, and proficiency level.

This study was thus informed by Valdés' definition of HSs which suggests that while variability exists in this population, by examining their spontaneous language production we can still provide the field with an update with respect to their preferences

in the use of future verb forms and we can detect if acquisitional levels differ to the point of statistical significance.

2.4.2. Similarities and differences between second language learners and heritage speakers

Heritage speakers differ from L2 learners regarding factors such as age of language acquisition, quantity and type of input, language use, and socioeconomic status (Montrul, 2012). Linguistic input serves as the fundamental material upon which grammars are constructed (Putnam and Sánchez, 2013), and HS and L2 learners are exposed to different kinds of input. While heritage speakers are exposed to the HL at home (i.e., in a naturalistic setting) from infancy, L2 learners tend to begin exposure later, often in a classroom setting. As seen in Table 2-2, the type and amount of input both populations receive also differs in terms of mode and quality, though both populations receive variable input (Montrul, 2012).

Table 2-2. Input differences and similarities between heritage speakers and L2 learners (Montrul, 2012, p. 10)

Input	Heritage Speakers	L2 Learners
<i>timing</i>	early (childhood)	late (around puberty)
<i>setting</i>	naturalistic (home)	instructed (classroom)/ (naturalistic, study abroad)
<i>mode</i>	aural	written and aural (literacy)
<i>amount and frequency</i>	variable	variable
<i>quality</i>	restricted to environment	restricted to environment

The abovementioned input differences between HSs and L2 learners have been found to have consequences for instructional practice: HSs often come to the classroom having developed functional proficiencies in the HL and show some advantages in the areas of language comprehension, vocabulary, phonological decoding, and pronunciation (Au, Knightly, Jun, and Oh, 2002). However, concerning structural aspects of the language, HL and L2 learners seem to exhibit similar gaps (Lipski, 1993).

The learning setting also plays an important role in the language acquisition process. L2 learners learn a second language in a classroom context where there is often a metalinguistic component involved. That is, there is reflection and manipulation of language that prompts participants to direct attention to rules or patterns of the target language. In contrast, HSs (at least initially) acquire the HL at home, a context that is not focused on language patterns or literacy skills (e.g., reading, writing, and metalinguistic knowledge). Regarding HSs' metalinguistic knowledge, previous literature has revealed that HS learners are not able to produce grammatical terminology or perform simple grammatical analyses of Spanish (Correa, 2011; Samaniego and Pino, 2000). Further, Beaudrie (2009) found that HSs often found explicit grammar explanations (usually tailored towards L2 learners) confusing in the Spanish classroom. In addition, Correa (2011) examined the role of metalinguistic knowledge on the acquisition of the subjunctive and found that knowledge of terminology and grammar rules was related to accuracy in the use of subjunctive for L2 learners but not for HL learners. Thus, we find differences related to metalinguistic knowledge and language acquisition in L2 learners and HSs.

As previously mentioned, metalinguistic awareness is one of the areas of study of the present dissertation. According to the findings reviewed above, we can hypothesize that L2 learners, who received explicit instruction on grammatical structures or functions (e.g., expression of futurity) will show higher metalinguistic awareness on the expression of futurity than HSs who were simply exposed to authentic discourse.

This section has reviewed several differences between L2 learners and HSs and how they impact language development. The next section reviews the literature on the acquisition of futurity by HSs.

2.4.3. Expression of futurity by Spanish heritage speakers

This section presents the literature on the expression of futurity by heritage speakers of Spanish. To date, and to my knowledge, only one study has explored HSs of two different proficiency levels, and no study has examined the development of expression of futurity across HSs of different proficiencies. Therefore, this review will focus on existing studies that explore language contact and change in the United States. The literature on language contact is relevant to this dissertation, since the input HSs are exposed to at any level is likely to be a product of Spanish-English bilingualism. One of the main questions that arise is how the Spanish of speakers living in the US compares to their monolingual counterparts. Specifically, whether Spanish speakers in the US use a reduced or simplified variety, and whether language changes across generations. To shed light on this matter, Silva-Corvalán (1994) set out to create a model of the large and dynamic bilingual community of Mexican-American bilinguals in Los Angeles, focusing on three generations of speakers. Regarding expression of futurity, Silva-Corvalán found

a low frequency of the MF in the first generation and predicted that this form would be lost in second and third generation HSs, since the input they would be exposed to would not include a large percentage of use of MF. The data confirmed the hypothesis. These results align with previous findings that suggest that in situations of language contact, the most marked tenses disappear first (e.g., the pluperfect subjunctive in Spanish). Silva-Corvalán proposes that simplification may be due to bilinguals developing strategies to lighten the cognitive load of using two different linguistic systems in situations of intense language contact.

Two decades after Silva-Corvalán's study, Gómez Soler and de Prada Pérez (2016) set out to investigate the expression of futurity by heritage speakers of Spanish in Florida. The goal of the study was to examine the linguistic factors that can predict the use of each of the futurity forms (PF, MF, and PI), as well as whether region, proficiency, and/or sociolinguistic generation had an effect on future time expression. The study analyzed future expression in 39 HSs that completed a PowerPoint-guided semi-structured sociolinguistic interview. Data were coded for the following linguistic constraints: certainty, temporal distance, presence/absence of a temporal adverb, clause type, person, and verb type. Results showed an abundant use of PF (77.3%) and PI (19.6%), and scarce use of MF (3.7%). These findings align with the trend of decreasing use of the MF in favor of the PF orally, providing further support for the hypothesis that the MF is being lost in US Spanish. Interestingly, Gómez Soler and de Prada report a chain effect in which not only is the MF being replaced by the PF, but the PF also starts being replaced by the PI (e.g., in the domain of motion verbs), showing a pattern of innovation. Generation and proficiency level were not found to constrain the expression

of futurity. However, it is possible that the lack of significant results regarding proficiency may be due to the small range of levels examined (27 participants were advanced speakers, while 12 were non-advanced). In contrast, the regional dialect of Spanish was found to play a role. Specifically, Caribbean Spanish showed a higher rate of use of the PI. This study reports on implications of language contact and lends further support to the trend of the use of the MF decreasing in the Spanish of the United States.

This chapter has presented an overview of the expression of futurity in different Spanish-speaking communities, including Spanish monolingual native speakers, L2 learners, and heritage speakers. Given the literature and gaps described above, the present study aims to increase our understanding of future time expression. Specifically, the study aims to inform theories of second language acquisition of variable expressions by drawing comparisons between second language and heritage learners. Specifically, it aims to exhaustively examine the lexical temporal markers and strategies used to express future time across proficiency levels and to shed light on possible differences on the development of future time expression between L2 learners and HSs. In addition, by focusing on young HSs, the study could inform future trends in the expression of futurity in the United States.

2.5. Research questions

The present study explores the following research questions:

RQ1. How do the developmental patterns of the expression of futurity compare in Spanish L2 learners and heritage speakers of different proficiency levels?

RQ2.a. What linguistic constraints (temporal distance, temporal adverbials, clause type, semantic type of verb, and markers of certainty) condition the use of future verb forms in L2 learners and HSs?

RQ2.b. What external constraints (exposure to Spanish dialect, formal education in Spanish, gender, and age) condition the use of future verb forms in L2 learners and HSs?

RQ3. What is the relationship between the production of future time forms and the metalinguistic awareness of L2 learners and HSs?

CHAPTER 3: METHODS

This chapter presents the methodology for the present dissertation. First, I describe the participant groups as well as the recruitment process. Then, I explain the motivation for the protocols used, describe their design, and detail the coding procedures and methods of analysis employed. Since the knowledge we gain about a grammatical structure can vary in different tasks, it is important to build a dataset that includes a variety of tasks in order to triangulate data (Geeslin, 2010). Specifically, this study used an interview protocol, a preference task (PT), a metalinguistic questionnaire, and a language background questionnaire. The goal of the aforementioned protocols was to provide a detailed picture of L2 learners' and heritage speakers' use of futurity in Spanish.

3.1. Participants

This section describes the characteristics of the participants in the study, as well as the process in which participants were recruited. There were two groups of participants: Spanish second language learners (L2) and heritage speakers of Spanish (HS). L2 learners are defined as native speakers of English who started acquiring Spanish in a classroom setting after their native language had been established (Genesee, Paradis, and Crago, 2004). Heritage speakers in this study are defined following Valdés (2000) as language students who are raised in the US in a home setting where Spanish is spoken, who speak or at least understand the language, and who are to some degree bilingual in Spanish and English. To minimize diversity in the HS group, I restricted the HS group to those who were born in the United States or who migrated to the US when they were five

years old or younger. In addition, participants in the heritage speaker group have not attended bilingual schooling programs because intensive early language experience in Spanish in some participants could yield confounding results. Table 3-1 presents a summary of the participant groups included in this study.

Table 3-1. Overview of participant groups in the study

Group	Proficiency level	Number of participants	Age	Inclusion or exclusion criteria
L2 Learners	Intermediate-mid	20	18-36	College education
	Intermediate-high	14		
	Advanced	14		
Heritage Speakers	Intermediate-mid	5	18-32	College education
	Intermediate-high	14		
	Advanced	21		

As seen in Table 3-1, the study interviewed 88 participants (L2: $N=48$, HS: $N=40$). The L2 and HS groups were divided into intermediate-mid (IM), intermediate-high (IH), and advanced (ADV) proficiency levels to allow for the study of developmental patterns of acquisition. The reason for not including a low proficiency group is that when the study was piloted, low proficiency speakers often relied on lexical items to answer the questions eliciting expression of futurity.

Second language learner and heritage speaker data were cross-sectional, meaning that it looked at learners of different proficiency levels at a single point in time and drew conclusions from the patterns of differences across the groups. In order to place students in the appropriate level, I took into account participants' scores on a modified version of the DELE (the flagship exam of the Cervantes Institute). The entire proficiency test can be found in Appendix F. While the DELE is not without limitations, especially for the

heritage speaker population, it is commonly used in both L2 and HS research (e.g., de Prada Pérez and Pascual y Cabo, 2012; Giancaspro, 2013; Montrul, 2010; Van Osch, 2016, among others) and has been found to correlate with other language proficiency measures (e.g., in Van Osch, 2016, DELE scores correlated with self-assessment and lexical decision tasks scores). In my study, participants scoring between 20-29 on the DELE were placed in the intermediate-mid proficiency group, participants scoring between 30-39 were in the intermediate-high proficiency group, and participants scoring over 39 points were in the advanced proficiency group. It is important to note that two L2 participants were placed in a proficiency level different than the level suggested by their scores on the DELE. The reason for this adapted placement is that, although these L2 learners' scores were under 30, their performance on the interview protocol (specifically fluency and syntactic accuracy and complexity) revealed that they had an intermediate-high proficiency level. Data from the language background questionnaire regarding their number of years of formal instruction in Spanish as well as their study abroad experience corroborated this observation (see 3.2.4. for a detailed description of the questionnaire, which can be found in Appendix E). In addition to the DELE scores, since the L2 and HS groups were comprised of college students, proficiency level was triangulated by examining students' Spanish placement at their current university. Generally, participants taking 100- and 200- level courses placed in the intermediate-mid proficiency group, those taking 300- level courses placed in the intermediate-high group and students at the 400 level or higher placed to the advanced group. The low number of participants in the HS intermediate-mid group is due to the difficulty of finding them in the NJ area.

The study also coded the corpus generated by the participants for age and

educational level. To control for the possible effects of differences in educational level, this variable was similar in both participant groups. Specifically, all participants had completed at least some college education. Participants' age ranged between 18 and 36 years old. Although the age range is not very wide, there may be differences between the younger and the older participants of the study. According to Chambers (2002), age is the primary social factor affecting language change. Several studies have reported younger speakers being linguistic innovators (e.g., Guy, 1990; Labov, 2001). Therefore, it is possible that linguistic patterns in the younger populations of the HS of the study could help us predict future trends in the expression of futurity in Spanish in the United States.

Regarding participant recruitment, I used purposeful sampling, selecting subjects that met the aforementioned language, age, and educational level criteria. Using the purposeful sampling technique enabled the elimination of age and educational level effects when comparing and contrasting expression of futurity in the two groups. To recruit participants for the L2 and HS groups, I visited Spanish classes at a large public university on the East Coast of the United States. The language background questionnaire (see 3.2.4. for more information) corroborated that potential participants conformed to the aforementioned age and educational level requirements.

3.2. Methodology

This section explains the mixed-methods methodology employed to answer the research questions of the study. All participants completed a total of three tasks targeting the expression of futurity in Spanish:

- An interview protocol,

- a preference task (PT), and
- a metalinguistic awareness questionnaire.

Task 1, the interview protocol, tested participants' rates of production of PF, MF, PI and other verbal structures employed to express futurity in spontaneous oral speech.

Task 2, the preference task (PT), focused on participants' preference regarding the expression of future verb forms and temporal lexical markers.

Task 3, the metalinguistic awareness questionnaire, examined participants' metalinguistic knowledge of expression of future time. All three tasks were self-paced; in other words, there was no time limit for participants to complete the tasks. Together, tasks 1, 2 and 3 are intended to present a detailed picture of L2 learners' and heritage speakers' expression of futurity in Spanish.

In addition, participants completed a language background questionnaire. The results from the questionnaire were used to examine the effects of social constraints (e.g., number of years of formal study of Spanish or exposure to a specific Spanish dialect) on participants' expression of futurity. Tasks 1, 2, and 3, as well as the language background questionnaire, can be found in Appendices A-E.

The goal of collecting data from a variety of tasks and sources was to triangulate findings to more accurately depict the state of the art in the expression of futurity in Spanish. The different tasks tapped into different kinds of knowledge. Therefore, the aforementioned tasks provided a multidimensional view of participants' expression of futurity that may not be necessarily revealed when, for example, production data alone are considered as a single source of analysis (Kinger and Farrell, 2004).

Table 3-2 presents the role of the research protocols in answering the study's

research questions.

Table 3-2. Overview of the role of protocols in relation to the RQs

Research Question	Protocol(s) used to answer the RQ
RQ1. How do the developmental patterns of the expression of futurity compare in Spanish L2 learners and heritage speakers of different proficiency levels?	- Task 1: Interview protocol (see 3.2.1.) - Task 3: Metalinguistic questionnaire (see 3.2.3.) - Language background questionnaire (see 3.2.4.)
RQ2.a. What linguistic constraints (temporal distance, temporal adverbials, clause type, semantic type of verb, and markers of certainty) condition the use of future verb forms in L2 learners and HSs?	- Task 1: Interview protocol (see 3.2.1.) - Task 2: Preference task (see 3.2.2.)
RQ2.b. What external constraints (exposure to Spanish dialect, formal education in Spanish, gender, and age) condition the use of future verb forms in L2 learners and HSs?	- Task 1: Interview protocol (see 3.2.1.) - Language background questionnaire (see 3.2.4.)
RQ3. What is the relationship between the production of future time forms and metalinguistic awareness?	- Task 1: Interview protocol - Task 3: Metalinguistic questionnaire (see 3.2.4.)

In the subsections that follow, I explain the motivation for and the design of the three tasks employed in the present study. Then, I highlight the goals of the language background questionnaire.

3.2.1. Task 1: Interview protocol

In the interview protocol (Labov, 1984), I examined participants' production of futurity in Spanish. This section is organized as follows: First, I introduce the task and

connect it to the research questions that it helps to address. Second, I describe the format of the task, followed by examples. Third, I provide an explanation of how the interview protocol controls for a number of potential confounds such as priming effects. Finally, I discuss the coding procedures and the statistical analyses that were made on the basis of the data collected from the interview.

According to Milroy and Gordon (2003), interviews are the most common approach to data collection in sociolinguistic and variationist research. The goal of the interview protocol in this study was to elicit naturalistic data. Specifically, the protocol was designed to elicit comparable responses from all participants (see 3.2.1.1. for a detailed description of the protocol). Having obtained comparable responses, it was possible to begin exploring the research questions by performing frequency tests to examine the distribution of the variants in production (in this case PI, MF, MF, and others) as well as the constraints conditioning the expression of futurity. Data from the interview also allowed to analyze the lexical resources and linguistic strategies that speakers employ when expressing futurity, as well as the developmental stages in L2 speakers and HSs of different proficiency levels. In the next section, I explain how the interview adjusts to the goals of the current study and provide examples of the interview questions.

3.2.1.1. Description of the interview protocol

In the interview protocol, I asked participants 36 questions about their experiences as students, about their past, and about their plans for the future. To obtain comparable responses, I used a protocol comprised of questions such as *¿Qué planes tienes para las*

vacaciones de verano? ‘What are your plans for summer break?’. The questions defined the topic of the conversation and enabled me to trace the patterns of expression of futurity in different populations (Labov, 1984). The entire protocol of questions can be found in Appendix A. Participants were asked to answer in a way that was as natural as possible. I avoided using the term “interview” with participants and told them that we were going to have a “conversation” or a “chat” instead in an attempt to maintain an informal and relaxed atmosphere (Orozco, 2004). The conversation was digitally recorded, transcribed, and analyzed.

After reviewing interview questions from existing studies, I decided to follow Gudmestad and Geeslin (2011) for the format, since the questions elicited expression of futurity without using future verb forms (e.g., *¿Dónde te ves en cinco años?* ‘¿Where do you see yourself in five years?’). I modified the content of several questions since they included linguistic structures that intermediate-mid proficiency students would not be able to follow (e.g., conditional questions asking for hypothetical answers). Guided by the backgrounds and the interests of the potential participants in the present study, I designed 36 questions that college students could encounter in real life:

a) Eighteen questions elicited expression of futurity, the focus of this study. Temporal distance was manipulated across six contexts following Kanwit (2014), and there were three questions for each of the following six conditions:

- 1- later that day (immediately after completing the study)
- 2- the next day
- 3- the next weekend
- 4- the next school break (summer break, one or two months away)

5- after graduation (two months to three years away)

6- the year 2027 (ten years from in the future)

The reason for eliciting more answers than previous studies (e.g., Kanwit, 2014, included six prompts) was to ensure participants produced enough tokens. I memorized the questions beforehand and on occasions modified the order thereof, with the goal of eliciting as spontaneous speech as possible. For instance, I skipped a question if a participant had already discussed that topic.

b) The remaining 18 questions were distractors. Note that questions targeting expression of futurity and distractor questions were intertwined. The goal was to distract participants from the topic of the task (i.e., expression of futurity) while still ensuring participants were engaged in the task. Specifically, distractors elicited information about participants' lives as students as well as about their hobbies and past experiences.

Examples of stimuli from the study are presented below. The entire interview protocol is included in Appendix A.

(2). (a) ¿Qué piensas hacer después de completar este estudio?

‘What are you going to do after completing this study?’

(b) ¿Cuáles son tus planes para este fin de semana?

‘What are your plans for the upcoming weekend?’

(c) ¿Qué planes tienes para las vacaciones de verano?

‘What are your plans for summer break?’

(d) ¿Cómo te imaginas la vida en el año 2027?

‘How do you imagine life in the year 2027?’

Examples of distractors:

(e) ¿Cómo va el semestre, qué cursos tomas?

‘How is the semester going? What courses are you taking?’

(f) ¿Qué te gusta hacer en tu tiempo libre?

‘What do you like to do in your free time?’

(g) ¿Cambia la vida de high school a la universidad? ¿Cómo?

‘Does life change from high school to college? How?’

In December 2016, I piloted the interview with native Spanish speakers as well as with HSs and L2 learners to check that:

- a) speakers expressed themselves in terms of futurity when expected,
- b) speakers from intermediate-mid, intermediate-high and advanced proficiency levels were able to understand and answer the questions, and
- c) speakers considered the topics of the questions realistic.

The findings of the pilot study revealed that low and (to a lesser degree) intermediate proficiency students were not able to understand several questions. Regarding questions about the future, repetition and paraphrasing of the question helped intermediate students understand. Regarding distractors, since the questions that caused the most difficulty were follow-up questions, I decided to omit those questions for the intermediate-mid proficiency participants. Feedback from the pilot study revealed that L2 learners and HSs found the topics realistic.

3.2.1.2. Controlling for additional variables in the interview protocol

The questions in the interview controlled for several potential confounding factors. In order to avoid priming effects, the interview protocol was the first task that

participants completed. Furthermore, questions about the present, as well about the past and future were asked in an effort to keep participants unaware of the goal of the study and to obtain as naturalistic data as possible. As mentioned in the previous section, half of the questions focused on futurity, while the rest served as distractors. In addition, to avoid priming effects in the expression of futurity, questions about the future were formulated in present tense using formulae such as *¿Qué planes tienes mañana?* ‘What are your plans for tomorrow?’ The reason for using these formulae is that questions such as *¿Qué haces mañana?* ‘What are you doing tomorrow?’ could prime the response *Mañana trabajo* ‘I work tomorrow’. The aforementioned measures aimed to ensure that the responses obtained were representative of naturalistic uses of futurity.

3.2.1.3. Data coding and analysis of the interview protocol

The present study used a mixed-methods approach and employed quantitative as well as qualitative analyses in the interview protocol data. First, for the quantitative analysis, the dependent and independent variables were identified and coded. For the dependent variable, expressions of futurity were identified in participants’ responses to the interview protocol. This variable provides information about the frequency with which each group used verb forms expressing futurity. Recall that this study followed a functionalist approach and the analysis included all verbal forms referring to events or actions taking place in the future (after the moment of speech). That is, tense categories were defined primarily in terms of the function they perform in a given context. Thus, the dependent variable of the study was not limited to the analysis of the MF and the PF, but included all verbal forms that refer to future time (Gudmestad and Geeslin, 2011; Kanwit,

2014) and in which the point of event and the point of reference coincide, and the point of event follows. For example, the dependent variable of expression of futurity coded the subjunctive when it was used in contexts that referred to events or actions that may take place in the future.

The dependent variable in this study has seven categories. Table 3-3 contains a list of the verb forms that were coded from the interview protocol, as well as examples taken from the corpus generated by the study. The category “other verb forms” was created to include verb forms that appeared with low frequency in the data (e.g., non-inflected verbs, present progressive), and these utterances were documented in a separate document for the qualitative analysis.

Table 3-3. Coding of verb forms used to express futurity by the speakers with examples and context

Verb form	Example with context
Periphrastic Future (PF)	Context: The speaker explained her plans for that evening. (L2-36-ADV): <i>Probablemente voy a hacer unas tareas que tengo para la clase de prácticas (...).</i> 'I'm probably <u>going to do</u> the homework I have for my internship course (...).'
Morphological Future (MF)	Context: The speaker explained how he envisioned his life in ten years. (L2-50-ADV): <i>Tendré 32 años. Me imagino que <u>tendré</u> mi propio apartamento, una carrera más o menos estable.</i> 'I'll be 32. I imagine I'll <u>have</u> my own apartment, a more or less stable career.'
Present Indicative (PI) as future	Context: The speaker explained what she planned to have for lunch that day. (HS-2-IH): <i>En el almuerzo a lo mejor <u>como</u> algo ligero.</i> 'For lunch maybe I <u>eat</u> something light.'
Lexical Future (LF)	Context: The speaker explained how he imagined his first job after graduation. (HS-7-IH): <i>No sé todavía si <u>quiero ser</u> intérprete o maestro de ESL.</i> 'I am not sure yet if I <u>want to be</u> an interpreter or an ESL teacher.'
Conditional as future	Context: The speaker explained how she envisioned the world in ten years. (L2-53-IH): <i>Entonces creo que, yo no sé si habrá más paz o habrá menos paz, si tenía que adivinar yo adivino que <u>sería</u> más paz en la vida.</i> 'Then I think that, I don't know if there will be more peace or less peace, if I had to guess I guess that there <u>would be</u> more peace in life.'
Subjunctive as future	Context: The speaker explained how she envisioned the world in ten years. (HS-21-ADV): <i>Ojalá que ya todo <u>sea</u> like mejor, ojalá que no <u>tengamos</u> like guerras o nada así.</i> 'If only everything <u>is</u> like better, if only we don't <u>have</u> like wars or anything like that.'
Other verb forms employed as future	a) Non-inflected verbs: Context: The speaker described her plans for that evening after

	<p>participating in the study.</p> <p>(HS-23-IH): <i>Manejar a casa, y después <u>atender</u> a mi papá.</i> ‘<u>Drive</u> home and then <u>take care</u> of my dad.’</p> <p>b) Present progressive: Context: The speaker discussed her plans for the upcoming summer.</p> <p>(L2-33-IM): <i>Yo no sé, posiblemente <u>estoy trabajando</u>, pero yo no sé.</i> ‘I don’t know, possibly <u>I am working</u> but I don’t know.’</p> <p>c) Other verbs: e.g., verbs in past tense. Context: The speaker discussed how she imagined the world in the year 2027 (ten years in the future).</p> <p>(L2-38-IM): <i>Es posible que no <u>había</u> cambios porque ahora hay muchas diferenc[i] [sic], mucha división en las ideas (...).</i> ‘It is possible that there <u>were</u> no changes because now there are many differenc, a lot of division in ideas (...).’</p>
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It is important to note that non-target like forms were included in the analysis, since accuracy is not the focus of this study. The following excerpts from the corpus exemplify instances in which inaccuracies were found in participants’ conjugation of verbs.

(1) Context: The speaker talks about her plans for the upcoming Friday.

(L2-39-IM): *Sí, para viernes tengo trabajo y *trabajaré en Brower, después de este probablemente *va a happy hour y usualmente *va a bares de antes de este con amigos.*

‘Yes, on Friday I have work and I *will work-3PS at Brower, after that probably (I) *go-3PS to happy hour and usually (I) *go-3PS to bars before this with friends.’

(2) Context: The speaker commented on how he imagined the world in ten years.

(HS-10-ADV): *Ojalá que *haiga más información sobre lo que *estás estudiando con el clima y que la tecnología esté a par con eso de cómo mejorar el clima, con eso del reciclaje, con lo de el consumo de gas o los fossil fuels.*

‘Hopefully there *will be more information about what *you are studying about climate and (hopefully) technology will be up to date with that on how to improve climate, with recycling, with gas consumption or fossil fuels.’

Note that verbs were excluded from the data when they did not express futurity, even when they were issued when answering a question asking about the future. The following instances were not coded in this study:

- Verbs expressing events or states that express habitual actions (routines) or that could refer to the present.

(3) Context: The speaker talks about her plans for the following day.

(L2-41-IH): *Siempre me gusta comer oatmeal para el desayuno, y también la fruta, y leche, y no sé. Pero para el almuerzo todos los días yo comer, como una ensalada con pollo y luego para la noche es siempre depende en lo que tenga cerca en el dining hall.*

‘I always like to have oatmeal for breakfast, and also fruit, and milk, and I don’t know. But for lunch every day I eat, like a salad with chicken and then at night it always depends on what the dining hall has.’

- Verbs where the point of reference and point of event do not coincide

(Reichenbach, 2005).

(4) Context: The speaker talks about how he envisions his life in ten years.

L2-57: *Y bueno, para ese entonces yo creo que como habré ido, habré subido en monte Rainier que está en Washington (...) yo creo que para ese entonces, si vivo en Washington habré ido a acampar a Mount Rainier para ese entonces. Sí.*

‘Well, by then I think that I will have been to, I will have hiked Mt. Rainier in Washington (...) I think that by then, if I live in Washington I will have gone to camp in Mt. Rainier by then. Yes.’

- Utterances that did not include a verb.

(5) Context: the speaker talked about how he imagined his life would be in ten years.

HS-7-IH: *Con un apartamento, o con un, con un espacio en Nueva York, con trabajo, quizá casado o con animales.*

‘With an apartment, or with a, with a space in New York, with work, maybe married or with animals.’

- The PF in the expression *voy/vamos a ver* ‘let’s/we’ll see’.

(6) Context: The speaker discussed how she envisioned her life after graduation.

(HS-19-IH): *No sé, creo que será muy difícil en principio para acostumbrarme al, a la vida de trabajar después de ser estudiante creo que será un poco difícil la transición, pero vamos a ver.*
 ‘I don’t know, I think it will be difficult at the beginning to get used to the, to the working life after being a student I think the transition will be difficult, but we’ll see.’

- Repetitions or corrections (these instances were coded only once).

(7) Context: The speaker talked about what his plans for summer break (in a month).

HS-26-IH. *En mayo cuando ya terminen las clases me voy a, me voy a Ecuador con mis amigos.*
 ‘In May when classes end I am going to, I am going to Ecuador with my Friends.’

(8) Context: The speaker talked about how she imagined her life in ten years.

(L2-43-IM): *Hasta que tengo siete años vivo en Cape May muy al sur y me gusta mucho so es posible que vivir viviré en Cape May, pero no Hosbrau, no me gusta Hosbrau.*
 ‘Until I was seven I live in Cape May very at the South and I like it a lot so it’s possible that I live will live in Cape May, but not Hosbrau, I don’t like Hosbrau.’

- Verbs in English.

(9) Context: The speaker talks about how she imagines the world in ten years.

(HS-21-ADV): *Quizás like we can slow down global warming.*
 ‘Maybe like we can slow down global warming.’

Having operationalized the dependent variable of the study, I now continue to present the independent variables. Each item expressing futurity was coded for a series of linguistic and external constraints. Four independent linguistic constraints were coded

following Kanwit (2014) and other previous studies: temporal distance, clause type, semantic type of the verb (following Aaron, 2006), and certainty. New additional constraints regarding temporal markers were added: quantity of temporal adverbials, type of temporal adverbial, and position of temporal adverbial.

In addition, two types of independent external constraints were coded in this study. Three external constraints were acquisitional in nature: participant's speaker group (encompassing age of acquisition of Spanish and proficiency level), exposure to Spanish dialect, and formal education in Spanish. There were also two social constraints: gender and age. The data for the external constraints were obtained from the language background questionnaire (see 3.2.4.). Table 3-4 presents the classification of the linguistic and external constraints as well as an abbreviated coding guide. The complete coding guide can be found in Appendix B.

Table 3-4. Independent linguistic and external constraints coded in the interview protocol

Linguistic constraints	External constraints
Temporal distance (1= later that day, 2= the next day, 3= the next weekend, 4= the next months, 5= after graduation, 6= in ten years)	Speaker group (age of acquisition and proficiency level) (1= HS intermediate-mid, 2= HS intermediate-high, 3= HS advanced, 4= L2 intermediate-mid, 5= L2 intermediate-high, 6= L2 advanced)
Type of temporal adverbial appearing in the utterance (1= later that day, 2= the next day, 3= the next weekend, 4= the next months, 5= after graduation, 6= in ten years, 7= no presence of adverbial marker)	Exposure to Spanish dialect (1= Mexico and Central America, 2= Caribbean, 3= South America, 4= Spain, 5= US Spanish)

Position of temporal adverbials of time appearing in the utterance (1= before verb, 2= after verb, 3= before and after verb, 4= NA)	Formal education in Spanish (1= NA, 2= less than 5 years, 3= 5-9 years, 4= 10 years or more)
Quantity of temporal adverbials appearing in the utterance (1= one, 2= two or more, 3=NA)	Gender (1= Female, 2= Male)
Clause type in which the future form appears (1= main, 2= subordinate)	Age (1= 20-30, 2= 30+)
Semantic type of verb (1=dynamic non-motion, 2= motion, 3= stative, 4= psychological/ perceptual)	
Markers of certainty conveyed in the clause (1= no marker, 2= high certainty, 3= mid certainty, 4= low certainty, 5= contingent <i>si</i> 'if' clause)	

I now move on to define and operationalize the independent variables of the study. First, the linguistic constraints, then the external constraints. The first linguistic constraint examined in the study was temporal distance. The constraint of temporal distance was used to account for the time between the time of speech and the time when the event or state would take place. Recall that six temporal distances were examined in this study:

- 1- later that day,
- 2- the next day,

- 3- the next weekend,
- 4- the next school break (summer break),
- 5- after graduation (two months to three years away),
- 6- the year 2027 (ten years in the future).

The interview protocol included three questions targeting each of the six aforementioned temporal distances (that is, 18 questions total), as well as 18 additional questions that served as distractors. Examples of stimuli from the study were presented in the section describing the interview protocol (3.2.1.1). The entire interview protocol is included in Appendix A. Examples of coding for the constraint of temporal distance are not provided because the coding for this constraint was linked to the questions of the interview protocol. For example, answers to the three questions regarding plans for later that day were coded with a 1, answers to the three questions regarding plans for the next day were coded with a 2, etc., as exhibited in Table 3-3 above.

The next three linguistic constraints refer to temporal markers. Specifically, these constraints examined the quantity of temporal adverbials, the type of temporal adverbial, and the position of temporal adverbials. The quantity of temporal adverbials was the third constraint of the study and was used to account for the use of one or more temporal adverbials in a single utterance. Even though in most instances participants used zero or only one temporal adverbial, there were instances in which several speakers produced two in one utterance. Thus, this constraint accounted for redundancy. Table 3-5 illustrates the coding for this constraint with examples taken from the present dataset.

Table 3-5. Quantity of temporal adverbials in a response with examples and context

Quantity of temporal adverbials	Example with context
None	<p>Context: The speaker talked about her plans for dinner that day.</p> <p>(HS-38-IM): <i>Creo que voy a tener como un bistec con... ¿macarrones? pasta, y yo sé que tengo guacamole en la casa, entonces voy a comer eso con papitas.</i></p> <p>‘I think I am going to have like a steak with... macaroni? pasta, and I know that I have guacamole at home, so I am going to eat that with chips.’</p>
One	<p>Context: The speaker talked about her plans after participating in the present study.</p> <p>(HS-38-IM): <i>Después la mi casa que vivo allá, vamos a tener un barbeque. [sic]</i></p> <p>‘<u>After</u> the my house that I live there, we are going to have a barbeque.’</p>
Two or more	<p>Context: The speaker talked about her plans for the weekend.</p> <p>(HS-38-IM): <i>Mañana el sábado es Rutgers day entonces voy a participar en eso.</i></p> <p>‘<u>Tomorrow Saturday</u> it’s Rutgers day so I am going to participate in that.’</p>

We now draw our attention to the third linguistic constraint, which examined the type of temporal adverbials employed in the corpus. This study coded for six types of temporal markers that correspond to the six temporal distances that are examined in this study: later that day, the next day, the next weekend, in two months, after graduation, and in ten years. The coding guide also included an option for no temporal adverbials. Table 3-6 illustrates the coding for this constraint with examples from the corpus of the study.

Table 3-6. Type of temporal adverbials in a response with examples and context

Type of temporal adverbial	Example with context
Later that day	Context: The speaker talks about her plans for that evening. (L2-53-IH): <i>No. <u>Esta noche</u> voy a conocer con mi novio que no vi por mucho tiempo y entonces vamos a relajarnos.</i> 'No. <u>Tonight</u> I am going to meet up with my boyfriend that I haven't seen for a long time and so we are going to relax.'
The next day	Context: The speaker talks about her plans for the next day. (HS-20-ADV): <i><u>Mañana por la mañana</u> me voy a tomar el examen de español, después voy a ir a comer con unas amigas.</i> ' <u>Tomorrow morning</u> I am going to take the Spanish exam, then I am going to go eat with some friends.'
The next weekend	Context: The speaker talks about his plans for the weekend. (L2-37-IM): <i><u>El sábado</u> voy a ir con unas amigas unos amigos a ver un musical en Broadway.</i> ' <u>On Saturday</u> I am going to go with some friends some friends to see a musical on Broadway.'
The next school break	Context: The speaker talks about her plans for the upcoming summer break. (L2-59-ADV): <i><u>Luego a finales de junio y julio</u> estaré en España haciendo investigaciones.</i> 'Then at the <u>end of June and July</u> I will be in Spain doing research.'
After graduation	Context: The speaker talks about where she plans to live after graduation. (L2-34-IH): <i>Creo que <u>después de graduarme</u> voy a ser aquí en este ciudad o en Boston.</i> 'I think that <u>after graduation</u> I am going to be here in this city or in Boston.'
In the year 2027	Context: The speaker talked about how she envisioned her life in ten years. (L2-34-IH): <i>Pues probablemente <u>en diez años</u> voy a trabajar.</i> 'So probably <u>in ten years</u> I am going to work.'

Another constraint shed light on the position of temporal adverbials with regards to the future verb in the utterance. This was the fourth linguistic constraint examined in

the study and it was coded as follows: no temporal adverbials, adverbial before the verb, adverbial after the verb, and adverbials before and after the verb. Examples can be found in Table 3-7:

Table 3-7. Position of temporal adverbials in a response with examples and context

Position of temporal adverbials	Example with context
Before the verb	<p>Context: The speaker talks about her plans for the following day.</p> <p>(HS-5-ADV): <i>Mañana tengo que ir a un evento, porque voy a ir a Israel, entonces nos dicen un poco de la historia (...).</i></p> <p>‘<u>Tomorrow</u> I have to go to an event, because I am going to Israel, so they tell us a bit about the history (...).’</p>
After the verb	<p>Context: The speaker talks about her plans for the upcoming weekend.</p> <p>(L2-61-ADV): <i>Probablemente voy a ir a un restaurant <u>el viernes o el sábado</u>.</i></p> <p>‘I am probably going to go to a restaurant on <u>Friday or Saturday</u>.’</p>
Before and after the verb	<p>Context: The speaker talks about what he plans to do that evening.</p> <p>(HS-33-ADV): <i><u>Esta noche</u>, nada, solo estudiar <u>por la noche</u>.</i></p> <p>‘<u>Tonight</u> nothing, only studying <u>at night</u>.’</p>

The fifth linguistic constraint of the study examined the effects of clause type on the expression of futurity. Table 3-8 illustrates the coding for this constraint, which accounted for whether the verb expressing futurity appeared in a main or in a subordinate clause.

Table 3-8. Clause type in a response with examples and context

Clause Type	Example with context
Main clause	Context: The speaker talked about his plans for that night. (HS-1-ADV): <i>Esta noche, bueno, <u>tengo que estudiar.</u></i> ‘Tonight, well, <u>I have to study.</u> ’
Subordinate clause	Context: The speaker talked about his plans for that night. (HS-1-ADV): <i>No estoy seguro, pero creo que <u>vamos a salir a alguna parte.</u></i> ‘I am not sure, but I think <u>we’re going to go somewhere.</u> ’

The sixth linguistic constraint examined the semantic type of the verb, and it was coded following the categorization proposed by Aaron (2006) and used by Kanwit (2014), with slight modifications. Table 3-9 presents the types of verbs coded in this study:

Table 3-9. Semantic type of verb in a response with examples and context

Semantic type of verb	Example with context
dynamic non-motion verbs (e.g., <i>comer</i> , <i>trabajar</i>)	Context: The speaker talked about his plans for the upcoming weekend. (HS-19-IH): <i>Probablemente voy a estudiar mucho, es posible que voy a visitar a mi abuela en New York.</i> 'I am probably going to <u>study</u> a lot, it is possible that I am going to visit my grandma in New York'
motion verbs (e.g., <i>salir</i> , <i>ir</i>)	Context: The speaker talked about his plans for that evening. (HS-1-ADV): <i>No estoy seguro, pero creo que vamos a salir a alguna parte.</i> 'I am not sure, but I think we are going to <u>go</u> somewhere.'
stative verbs (e.g., <i>estar</i> , <i>tener</i>)	Context: The speaker talked about how he imagined the world in the year 2027. (HS-13-IH): <i>Me parece como que los Estados Unidos no va a ser el país más poderoso que nosotros pensamos (...), presiento como otros países como Rusia o China van a tener una posición atractiva como los Estados Unidos.</i> 'It seems to me like the United States is not going to <u>be</u> the most powerful country that we think (...), I feel that other countries like Russia or China are going to <u>have</u> an attractive position like the United States.'
psychological/perceptual verbs (e.g., <i>creer</i> , <i>ver</i>)	Context: The speaker explains her plans for the following day. (HS-14-IH): <i>Por la noche ver una película de pronto y descansar.</i> 'In the evening <u>watch</u> a movie maybe and rest.'

The seventh and last linguistic constraint of the study examined markers of certainty with the goal of examining whether the degree of confidence that a speaker has about an event happening has an effect on the way he or she expresses futurity. This study approached the analysis of certainty by examining certainty markers. Following Gómez Soler and de Prada Pérez (2016), the certainty markers in this study were analyzed using the following scale: high certainty, mid certainty, and low certainty. In

addition, the study coded for instances of *si* ‘if’ conditional clauses, and for instances in which there was no marker of certainty in the utterance. The table below illustrates the coding for this constraint.

Table 3-10. Markers of certainty in a response with examples and context

Markers of certainty	Example with context
No marker of certainty	Context: The speaker talked about his plans for that night. (L2-59-ADV): <i>Voy a buscar un trabajo que me de comer.</i> ‘I am going to look for a job that puts food in my mouth.’
Marker of high certainty (e.g., <i>seguro que</i> ‘I am sure that’)	Context: The speaker talked about how he imagined his job after graduation. (L2-47-IM): <i>Well obviamente yo voy a estar con mi computadora mucho, pero también creo que voy a necesitar trabajar con otros desarrolladores de software (...).</i> ‘Well obviously I am going to spend a lot of time with my computer, but I also think that I am going to need to work with other software developers (...).’
Marker of mid certainty (e.g., <i>creo que</i> ‘I think that’)	Context: The speaker talked about his plans after graduation. (HS-39-ADV): <i>Me imagino como que va a ser, va a ser un reto nuevo honestamente porque nunca he trabajado full time así en mi vida (...).</i> ‘I imagine like it’s going to be, it’s going to be a new challenge honestly because I have never worked full time in my life (...).’
Marker of low certainty (e.g., <i>tal vez</i> ‘maybe’)	Context: The speaker talked about her summer plans. (HS-28-IH): <i>Y quizás mi novio va a mover a Detroit para trabajar, so voy con él a visitar, so.</i> ‘And maybe my boyfriend is going to move to Detroit for work, so I am going with him to visit, so.’
<i>Si</i> ‘if’ clause	Context: The speaker talks about her plans for that evening. (L2-51-ADV): <i>Si tengo tiempo para cenar voy a comer una ensalada, si tengo tiempo.</i> ‘If I have time to have dinner I am going to have a salad, if I have time.’

It is important to mention that if participants employed more than one marker of certainty in the clause, I coded the one closest to the verb under examination.

(10) Context: The speaker talks about how she imagines the world in ten years.

(L2-53-IH): *Creo que, yo no sé si habrá más paz, o menos paz.*

‘I think that, I don’t know if there’ll be more peace, or less peace.’

Having described the linguistic constraints in detail, I now describe how I analyzed the data generated by the interview protocol. First, I performed statistical analyses using the Statistical Package for the Social Sciences (SPSS). Chi-Square tests of independence were performed to determine whether there was a statistically significant relationship between two or more variables (e.g., future verb form and L2 proficiency level, or future verb form and clause type). That is, the goal of the Chi-Square tests was to determine whether the constraints described above conditioned the use of verb forms participants employed to express futurity. In addition, I conducted multinomial logistic regressions in each group to determine which linguistic constraints operate as a predictor or condition the use of a future form hierarchically (i.e., valuing the strength of the constraint compared to other constraints).

In order to obtain a more detailed understanding of the expression of futurity in the different groups, a qualitative analysis complemented the quantitative analysis. The rationale for the qualitative analysis is that certain speech features such as hesitation or circumlocution cannot be fully captured by a quantitative analysis. Therefore, the qualitative analysis aimed to provide a comprehensive picture of the strategies used by speakers to express futurity. For example, in the qualitative analysis we may find cases of circumlocution, which is the use of many words when fewer are sufficient. Other phenomena we may observe when L2 learners or HSs are trying to overcome a language

barrier are hesitations (e.g., *no sé* ‘I don’t know’, *no* ‘no...’), pauses and silence. Thus, an in-depth analysis shed light on the presence of other features that the quantitative analysis did not code for. Further, the qualitative analysis allowed examination of responses that differed from the tendencies found, which may indicate inter- and intra- group variability.

Together, the quantitative and the qualitative analyses will shed light on the research questions by analyzing and comparing how L2 learners and HSs express futurity in Spanish. Overall, the analysis will contribute to the field by adopting a functionalist approach, by deepening the study of linguistic constraints (specifically temporal lexical markers), and by focusing on the effects of age of acquisition, proficiency level, and language experience in L2 learners and HSs.

3.2.2. Task 2: Preference task

The Preference task (PT) (e.g., Montrul, 1998; Cuza and Frank, 2015) is the second task of the study. The PT aimed to examine participants’ preference of instances of expression of futurity in Spanish focusing on the presence/absence and location of temporal lexical markers (e.g., *mañana* ‘tomorrow’ or *la semana que viene* ‘next week’). The goal of this task was to complement the interview protocol in comparing the development of expression of futurity across proficiency levels in the L2 and HS groups, shedding light on participants’ preferences regarding the lexical resources speakers use to express futurity. In particular, the preference task helped address RQ2.a., which inquired about the linguistic constraints conditioning the expression of futurity in L2 learners and HSs. This section is organized like the section for Task 1. First, I introduce the PT and its goals. Then I provide a description of the task and its different conditions, as well as

examples and an explanation of how I have controlled for possible confounding factors. Finally, I explain how I plan to code and analyze the data.

The Preference task is a widely used method of data collection in bilingualism research, including research on the acquisition of variation (e.g., Geeslin, 2003; Kanwit, 2014). The primary benefit of a PT is that it allows the researcher to make the linguistic contrast that is being targeted salient (Ionin and Zyzik, 2014). In the PT, I tested participants' intuitions of instances of expression of futurity in Spanish regarding the presence/absence and location of lexical markers, specifically temporal markers such as temporal adverbials (e.g., *mañana* 'tomorrow' or *la semana que viene* 'next week'). Some participants who did not produce or produced a lower frequency of lexical markers may still show a preference for them when presented. It is also possible that participants who produced certain forms (e.g., multiple lexical markers) may not show a preference for them when presented. In other words, the PT was designed to tap into participants' knowledge of expression of futurity. Specifically, it focused on how the constraints of lexical markers operate in the expression of futurity. The PT complemented the interview protocol in comparing the development of expression of futurity across proficiency levels in the L2 and HS groups, shedding light on participants' preferences regarding the lexical resources speakers use to express futurity.

3.2.2.1. Description of the preference task

Participants were asked to read a short paragraph presenting a context, followed by three sentences that differ only regarding the lexical temporal markers accompanying the verb expressing futurity. Then, they were asked to select the sentence that sounded

better to them. In the PT, there were a total of 36 items. Half the items ($k=18$) focused on the expression of futurity and included three conditions targeting temporal markers (the dependent variable). The remainder half of the items ($k=18$) were fillers. An example of an item focusing on future time and temporal adverbials is presented below:

(3). Instructions: Read each context. Then read the follow-up sentences and choose which of three possible sentences you prefer in each context.

María y Lola son amigas. Están tomando un café juntas en el centro de estudiantes de la universidad. María pregunta a Lola por sus planes para mañana y Lola responde:

- (a) Mañana voy a ir al cine con Marcos.
- (b) Voy a ir al cine con Marcos mañana.
- (c) Voy a ir al cine con Marcos.

In condition 1, participants read sentences with a temporal marker before the verb that expresses futurity, as seen in (3.a). In condition 2, participants read sentences with a temporal marker after the verb that expresses futurity, as seen in (3.b). Finally, in condition 3, participants read sentences without a temporal marker referring to the verb that expresses futurity, as seen in (3.c). Note that out of the 18 experimental items, six items tested temporal adverbials with relation to MF, six with relation to PF, and six with relation to PI. The entire PT is included in Appendix C.

3.2.2.2. Controlling for additional variables in the PT

In this section, I explain the steps taken to control for potential confounds. As presented in the previous section, half of the items in the PT were fillers designed to distract participants from the focus of the task (i.e., lexical markers in the expression of

futurity), and to provide variety in the items so the task was not monotonous and participants engaged their attention to complete it.

As described above, condition 3 items (as seen in 3.c) were sentences without a temporal marker referring to the verb that expresses futurity. That is, sentences in condition 3 were ambiguous by themselves regarding the exact time point when the event takes place. Specifically, sentences in condition 3 expressed in PI such as *Voy a la cafetería* ('I go to the cafeteria' or 'I am going to the cafeteria') could be interpreted as referring to present time and therefore not chosen as the preferred option in the protocol. To avoid this type of confusion in condition 3 items, the context that preceded the target sentences provided information about the time of the future event. For instance, as seen in (3), the context made it clear that the sentences refer to actions taking place the following day (i.e., tomorrow).

In addition, I controlled for other factors related to future-time reference following Gudmestad and Geeslin (2011). Specifically, all sentences in the PT items contained only one finite verb (i.e., no subordination), and none of the sentences contained negation.

Items targeting future and filler items were scrambled, that is, the order of the items was random. Although this task was untimed, participants were asked to respond as intuitively as possible and not to go back to compare answers.

3.2.2.3. Data analysis of the PT

To analyze the data from the PT, I used the statistical package SPSS. I began by calculating the mean preference rating for each of the three conditions in each participant

group. Then, a multinomial logistic regression was performed to ascertain which constraints predicted participants' preference regarding the presence/absence and location of temporal markers in the preference task. In the logistic regression model, the dependent variable included the three conditions tested in the PT (i.e., temporal marker before the verb, temporal marker after the verb, and no temporal marker). The constraints (independent variables) included in the model were speaker type (i.e., L2 or HS), proficiency level (i.e., IM, IH, and ADV), verb type (e.g., PF or PI) and temporal distance (i.e., near or distant future). Multinomial logistic regressions in each group determined which constraints operate as a predictor or condition participants' preference regarding temporal markers in the expression of futurity in Spanish.

3.2.3. Task 3: Metalinguistic awareness questionnaire

The third task of the study was the metalinguistic awareness questionnaire. Metalinguistic awareness questionnaires (e.g., Robinson, 2005, 2007) prompt participants to think about language and to describe any rules or patterns they notice about linguistic items or language as a whole (Jackson, 2014). The goal of this type of questionnaire is to gain insight into “what learners know about language through reflection on and manipulation of language” (Jessner, 2006, p. 43).

This section is organized like the previous two sections: first, an introduction, next, the description and examples of the task, then, how additional variables were controlled for, and finally the explanation on how the data will be analyzed.

The metalinguistic awareness questionnaire provided introspective reporting data and insight on the perspectives of how participants believe they express futurity in

Spanish and why. Production data (for example, elicited through an interview protocol as in 3.2.1) are not sufficient for evaluating how learners perceive variation in the language they are studying (Kinging and Farrell, 2004). It is possible that some participants who did not produce or favored certain forms in a native-like manner (e.g., MF or PF) will still explain their metalinguistic awareness about their use. In addition, protocols that consist on judging isolated sentences (similar to the PT described in 3.2.3) also have limitations, since these protocols do not tap into whether participants were aware of the differences conveyed in the different conditions of the task (Potowski et al., 2009). With these limitations in mind, the goal of the metalinguistic awareness questionnaire was to complement the interview protocol and the PT by tapping into participants' explicit knowledge of expression of futurity. I triangulated results by eliciting participants' perceptions and explanations of their choices in the expression of futurity.

Data generated by the metalinguistic questionnaire shed light on the developmental patterns of metalinguistic awareness in the two groups by inquiring about the relationship between the production of future time forms and metalinguistic awareness.

3.2.3.1. Description of the metalinguistic awareness questionnaire

To assess metalinguistic awareness, participants answered questions regarding the use of Spanish to express future time in different contexts. There were two parts in the questionnaire: part one, the variation task, focused on participants' ability to recognize and explain variation in sets of minimal pairs. Part two, the metalinguistic narratives,

asked participants how they thought they expressed futurity in Spanish. The two parts are explained below.

Part one, the variation task, followed Van Compernelle and Williams (2011) and sought to evaluate participants' ability to recognize and explain variation between forms used to express futurity (i.e., PI, MF, PF). To this end, participants read two sets of three sentences that were minimal pairs except for the verb expressing futurity. One sentence presented the verb using PI, another sentence used MF, and the last sentence used PF. Participants were asked to identify the variation and to provide an explanation for it.

Example of stimuli:

(4). Instructions: Read the title and then read the three follow-up sentences (a, b, and c).

Identify any differences in the sentences (a, b, and c) and explain what makes them different. Do you notice a difference in meaning?

You can write your answers in English or in Spanish (or a combination of both).

Please provide as much information as possible.

Ana tiene planes de ir a Boston

(a) *Ana viaja a Boston.*

(b) *Ana viajará a Boston.*

(c) *Ana va a viajar a Boston.*

Part two of the metalinguistic questionnaire consisted of the metalinguistic narratives. This part complemented part one and sought to evaluate participants' explicit knowledge of variation between forms used to express futurity. Part two followed Kinginger and Farrell's (2004) language awareness interview. Participants read three scenarios related to life in a college campus (one scenario in the near future, one in the

medium future and one in the distant future). Participants were prompted to explain how they would talk about the future in those situations and to comment on how they would decide which words and verb forms to use.

Example of stimuli:

(5). Instructions: For each of the following scenarios, explain how you would talk about your plans in Spanish and how you would decide which words and verb forms to use.

You do not have to answer the question at the end of the scenario, you need to explain how you would answer it in Spanish.

You can write in English or Spanish (or a combination of both).

Please provide as much information as possible.

1. You are eating lunch in the university cafeteria when one of your classmates sits down across the table from you and greets you. Your classmate asks you about your plans for the upcoming weekend.

After the three scenarios were presented, a final question prompted participants to comment on their personal use of verbs and other words when talking about the future in Spanish, as well as on the factors that they thought influenced their linguistic behavior. This last question was an open-ended question and participants were asked to provide as much information as possible. The entire metalinguistic awareness questionnaire is included in Appendix D.

3.2.3.2. Controlling for additional variables in the metalinguistic awareness questionnaire

The metalinguistic awareness questionnaire was completed after the interview protocol and the PT to avoid having the questionnaire affect participants' performance on the aforementioned protocols.

Part one presented conditions (i.e., PI, MF, and PF) in different orders for each item. To avoid confusion about the PI referring to present tense instead of futurity, each item had short title referring to the future but not containing the word “future” (e.g., *Ana tiene planes de ir a Boston*. ‘Ana has plans to go to Boston.’).

3.2.3.3. Data analysis of the metalinguistic awareness questionnaire

For part one of the questionnaire (i.e., the variation task), responses were scored on a scale from 0 to 3, following a slightly modified version of Van Compernelle and Williams (2011). The scoring was as follows:

- 3: Identifies locus of variation and provides an accurate explanation.
- 2: Identifies locus of variation but provides an unclear or incomplete explanation.
- 1: Identifies locus of variation but provides no explanation.
- 0: Does not identify the variation or provides an inaccurate explanation.

After scoring the responses, I calculated the mean scores of each proficiency group of L2 learners and HSs. Higher mean scores meant higher metalinguistic awareness regarding the expression of futurity. In order to test whether the differences between groups were significant, I used the statistical package SPSS to run ANOVAs using speaker type and proficiency as covariates. It was expected that students in the L2 group, who received explicit instruction about the expression of futurity, were more

capable of recognizing the locus of variation and explaining its meaning than HSs who were simply exposed to authentic discourse.

The metalinguistic narratives resulting from part two of the metalinguistic awareness questionnaire were analyzed quantitatively and qualitatively. First, for the quantitative analysis, I identified the future verb forms that were mentioned in the metalinguistic narratives. I then calculated the frequency with which each verb form was mentioned for each proficiency level and for each speaker type. In addition, following the methodology employed by Kinginger (2008) and Lovejoy (2015), I analyzed the narratives to identify themes or "key narratives" among them. Then, I quantified the frequency with which each theme appeared in the narratives of each speaker group. Second, for the qualitative analysis, the themes that emerged in the narratives were illustrated through representative examples from the corpus generated from the metalinguistic narratives. Together, the quantitative and the qualitative analysis provide a more detailed picture of participants' narratives. Finally, in order to triangulate results, I compared participants' responses in part one and two of the metalinguistic questionnaire to their production of futurity in the interview protocol. The goal of the comparison was to examine whether explicit knowledge about the variability of expression of futurity in Spanish is also demonstrated in their productive use of the language.

3.2.4. Language background questionnaire

Participants also completed an adapted version of the Language Experience and Proficiency Questionnaire (LEAP-Q), a survey of bilingual language status with predictable relationships between self-reported and behavioral measures (Marian,

Blumenfeld, and Kaushanskaya, 2007). Because I examined differences in performance as a function of the type of language acquisition (i.e., L2 and HS acquisition) and proficiency level, it was important to use a questionnaire to account for possible factors affecting participants' expression of futurity. The questionnaire inquired about participants' demographic information including date of birth, gender, educational attainment, languages spoken in order of acquisition and dominance, and age of exposure to the Spanish language. The questionnaire also inquired about information on participants' experience in Spanish-speaking countries (including Study Abroad), perceived language proficiency, and number of years of education in Spanish.

Participants completed the questionnaire in English to ensure that participants at the lower level were able to comprehend all the questions and provide as accurate information as possible. The questionnaire was presented via a web-interface (www.surveymoz.com). The entire language background questionnaire is included in Appendix E.

This chapter provided a detailed description of the methodological design of the present study. In summary, I have discussed how the protocols completed by the participants (i.e., the interview protocol, the preference task, the metalinguistic questionnaire, and the language background questionnaire) were designed to address the research questions regarding the expression of futurity in L2 learners and HSs of different proficiency levels. In the next chapters, the results of the various analyses conducted are reported and discussed to answer the research questions of the dissertation.

CHAPTER 4: RESULTS ON THE PRODUCTION OF EXPRESSION OF FUTURITY

This chapter presents the quantitative analysis with regard to the strategies employed to express futurity by the participants in the study. Recall that this dissertation was guided by research questions that inquired about the:

- (1) developmental patterns on the expression of futurity in L2 learners and HSs,
and
- (2) linguistic and external constraints that condition the verb forms and
expressions of futurity employed by each group.

The third research question pertaining to metalinguistic awareness will be addressed in the next chapter. In order to address the two previous research questions, data were collected from 88 participants who completed a production task (i.e., an interview protocol) and a preference task (PT), as detailed in Chapter 3. The verb forms that participants employed or selected to express futurity were then coded and analyzed.

This chapter presents the quantitative analysis of the corpus generated by the interview protocol designed to elicit futurity. The data regarding developmental patterns of expression of futurity are presented first. This section is followed by the analysis of the linguistic constraints that may have influenced the speakers' choice of the expression of futurity (such as temporal distance and clause type). Next is the analysis of the external constraints (e.g., exposure to Spanish dialect and age), the sociolinguistic segment of the study. A summary of key findings closes the chapter.

4.1. Results of the quantitative analysis regarding the developmental patterns of expression of futurity

4.1.1. Introduction

The goal of this section is to address research question one, which inquired about how the patterns of the expression of futurity manifested in Spanish L2 learners and HSs of three different proficiency levels (i.e., intermediate-mid, intermediate-high, and advanced; henceforth IM, IH, and ADV, respectively). In other words, this section aims to elucidate the developmental patterns of expression of futurity in L2 learners and HSs.

As described in the methodology section in Chapter 3, the data for this segment of the analysis were obtained from an interview protocol that issued 18 questions to engage the use of futurity by the interviewees, as well as 18 additional questions that served as distractors. Examples of stimuli are presented below. The entire protocol of questions can be found in Appendix A.

(1). (a) *¿Qué piensas hacer después de completar este estudio?*
‘What are you going to do after completing this study?’

(b) *¿Cuáles son tus planes para este fin de semana?*
‘What are your plans for the upcoming weekend?’

We should also note that this study adopts a functionalist approach that views language not as an independent formal system, but as a system that is molded by the functions performed by language (Mitchell and Myles, 2004). That is, the study is not limited to the analysis of morphological future, periphrastic future, and present indicative (the verb forms that have traditionally been examined), but includes all verbal forms that refer to future time (Gudmestad and Geeslin, 2011). As detailed in Chapter 3, the following verb forms were found in the corpus when participants expressed futurity: periphrastic future (PF), morphological future (MF), present indicative (PI), lexical future (LF), conditional, subjunctive, and “other forms” (mostly non-inflected verbs, present

progressive and verbs in past tense). In addition, as discussed in Chapter 2, the present study focuses on the expression of futurity understood as simple future in Reichenbach's terms. That is, the study analyzed cases where the point of event and the point of reference coincide and follow the point of speech (Reichenbach, 2005).

Before analyzing the expression of futurity by the different groups, I first present the raw frequencies of the verbal forms employed by all participants when answering the questions in the interview protocol. Note that Table 4-1 presents the verb forms in a specific order: from the most frequently produced verb form to the least frequently produced verb form. The exception is the "other"⁶ category (including mostly non-inflected verbs and present progressive), which is presented last⁷.

Table 4-1. Raw frequencies of verb forms employed to express futurity in the corpus

Verb form	Frequency
PF	28.1% (833)
LF	19.5% (579)
PI	19.1% (566)
MF	7.2% (215)
Subjunctive	5.3% (157)
Conditional	5.0% (147)
Other (e.g., non-inflected and present progressive)	15.8% (469)
Total	100.0% (2966)

⁶ This category is defined in a similar manner throughout the thesis.

⁷ Even though these frequencies may differ in future analyses, for the sake of consistency every table in this chapter will follow the order of Table 4-1.

In Table 4-1 we find that all participants contributed a total of 2966 verbs expressing futurity in the interview protocol. Three main observations can be made: First, the PF was the preferred form, accounting for 28.1% of all verbs employed to express futurity in the interview protocol. This preferred form is followed by the LF (19.5%) and the PI (19.1%), forms that speakers frequently used to express futurity. Second, the MF, the conditional, and the subjunctive were produced less frequently, accounting for only 7.2%, 5.3%, and 5.0% of future time tokens, respectively. Third, the category of other forms, which included a majority of non-inflected forms and present progressive was expressed in 15.8% of the instances in which speakers were expressing futurity.

The subsections that follow discuss RQ1, which addressed whether the type of speaker (i.e., L2 or HS) and the proficiency level of participants (i.e., IM, IH, or ADV) conditioned the use of future verb forms. As detailed in Chapter 3, the Statistical Package for the Social Sciences (SPSS) was employed for this analysis. Chi-Square tests of independence⁸ were performed to determine whether there is a statistically significant relationship between two or more variables (e.g., verb form and L2 proficiency level).

I will begin by analyzing the data from the L2 learners, then I will discuss the heritage speakers' data. Later, I will compare the results from both groups and finish with a summary of the findings.

4.1.2. L2 learners: Developmental patterns

This section presents the data regarding the developmental patterns of expression of futurity in L2 learners. That is, this section examines the verb forms employed to

⁸ Each Chi-Square tests yields a *p* value, which is reported under every table in this study. The result of a Chi-Square test is considered statistically significant if it yields a *p* value of .05 or less.

express futurity by intermediate-mid (IM), intermediate-high (IH), and advanced (ADV) L2 learners. As detailed in the methodology chapter (Chapter 3), the proficiency level of the participants was determined using a modified version of the DELE test. Table 4-2 presents the distribution of future verb forms employed according to each L2 proficiency group.

Table 4-2. The distribution of expressions of futurity in the interview protocol according to L2 proficiency level

Proficiency	Expressions of futurity							Total
	PF	LF	PI	MF	Subj.	Cond.	Other	
L2-IM	17.1% (79)	23.3% (108)	26.3% (122)	8.6% (40)	1.5% (7)	5.4% (25)	17.7% (82)	100.0% (463)
L2-IH	28.6% (141)	23.1% (114)	20.1% (99)	14.2% (70)	5.1% (25)	3.9% (19)	5.1% (25)	100.0% (493)
L2-ADV	32.5% (132)	16.5% (67)	12.3% (50)	8.4% (34)	10.1% (41)	5.7% (23)	14.5% (59)	100.0% (406)
Total	25.8% (352)	21.5% (289)	19.9% (271)	10.6% (144)	5.4% (73)	4.9% (67)	12.2% (166)	100.0% (1362)

$p = .000$

Table 4-2 reveals that there is a significant relationship between the level of proficiency and the future forms employed by the L2 participants, $\chi^2 (12, N = 1362) = 54.786, p = .000^9$. In it, we can observe differences among proficiencies in the use of several verb forms. First, the L2-IM participants expressed the PF in 17.1% of their responses. However, the L2-IH and L2-ADV employed the PF in higher frequencies (28.6% and 32.5%, respectively). We can gather from this difference that the use of the PF increases with proficiency.

Second, the use of the LF remains relatively stable among the L2-IM and L2-IH participants (23.3% and 23.1%, respectively). However, these frequencies decrease

⁹ In this study, the p value for the linguistic and external constraints was found at $p < .0001$, unless otherwise indicated. This value points to statistical significance in the results of the cross-tabulations conducted in the study.

several percentage points to 16.5% in the L2-ADV group. The same pattern is detected in the use of the PI where we find the L2-IM, L2-IH, and L2-ADV use the PI in future contexts with a frequency of 26.3%, 20.1%, and 12.3% respectively. Hence, there appears to be a decrease in the use of the LF and the PI to represent futurity as the proficiency of the L2 learners increases. Conversely, we observed that L2 learners' use of the PF increases as their level of proficiency does. In other words, the distribution of future verb forms in Table 4-2 points toward a progression in the acquisitional patterns and use of the three aforementioned verb forms.

The L2 participants of this study, in general, produced the MF in 144 of their responses in this protocol, less than half of the instances in which they expressed the PF. A closer look at the use of the MF suggests that the L2-IH participants employed it more (14.2%) in their responses than the L2-IM (8.6%) and the L2-ADV (8.4%), who used the MF in similar rates.

From Table 4-2 we can also observe that the subjunctive and conditional were used to express futurity, even though their frequencies were low. For instance, the L2-ADV speakers expressed futurity using the subjunctive in 10.1% of tokens while the L2-IM and L2-IH employed these forms in only 1.5% and 5.1% of instances in which they expressed futurity, respectively.

Recall that "other" referred to a category of forms which included a majority of non-inflected verbs and present progressive. In Table 4-2, we find that the L2-IM learners expressed futurity in 17.7% of their responses using these forms, while the L2-IH used only 5.1% and the L2-ADV, 14.5%. In other words, the L2-ADV and the L2-IM exhibit

subtle differences. In contrast, the L2-IH disfavored the use of forms in this “other” category (only 5.1%).

To situate these observations, and as detailed in Chapter 2, Spanish monolingual native speakers favored the PF across dialects (e.g., Claes and Ortiz López, 2011; Orozco, 2004; Sedano, 1994) and the literature also has revealed that the MF is in decline among native speakers (e.g., Jaque, 2017; Orozco, 2015; Silva-Corvalán, 1994). Thus, the L2-IH and L2-ADV groups’ preference to use the PF suggests that they are approximating native speakers. In contrast, the higher frequencies of use of the PI and LF in the L2-IM group may be due to participants’ lower proficiency level. It is plausible that the L2-IM group relies on the PI and LF because their morphology is less complex. This phenomenon may involve circumlocution because if learners do not master the PF or the MF, learners may tend to use the PI and add other linguistic features to convey futurity (e.g., lexical temporal markers). The analysis of the metalinguistic awareness questionnaire presented in the next chapter will shed more light on these findings.

That said, if we revisit the L2-IH use of the MF, we find that they exhibit a higher frequency in the use of this form (14.2% compared to 8.6% in the L2-IM group and 8.4% in the L2-ADV group). This pattern may be suggestive of instructional effects, whereby Spanish textbooks and language instruction at certain proficiency levels promote the use of the MF (Kanwit, 2014; Orozco and Thoms, 2014). However, I cannot corroborate these observations since they fall outside the scope of this study.

Having analyzed the expression of futurity across L2 proficiency levels, we now turn our attention to the HS participants.

4.1.3. Heritage speakers: Developmental patterns

This section discusses how HSs of different proficiency levels express futurity in Spanish. That is, the section examines the verb forms employed to express futurity by intermediate-mid, intermediate-high, and advanced HS learners with the goal to ascertain possible developmental patterns. Table 4-3 presents the distribution of future verb forms employed by each HS proficiency group.

Table 4-3. The distribution of expressions of futurity in the interview protocol according to HS proficiency level

Proficiency	Expressions of futurity							Total
	PF	LF	PI	MF	Subj.	Cond.	Other	
HS-IM	24.4% (41)	23.2% (39)	28.6% (48)	4.8% (8)	1.8% (3)	1.2% (2)	16.1% (27)	100.0% (168)
HS-IH	35.0% (156)	20.9% (93)	14.3% (64)	3.4% (15)	2.9% (13)	3.1% (14)	20.4% (91)	100.0% (446)
HS-ADV	28.7% (284)	16.0% (158)	18.5% (183)	4.8% (48)	6.9% (68)	6.5% (64)	18.7% (185)	100.0% (990)
Total	30.0% (481)	18.1% (290)	18.4% (295)	4.4% (71)	5.2% (84)	5.0% (80)	18.9% (303)	100.0% (1604)

$p = .000$

In Table 4-3 we observe statistically significant differences in the expressions of futurity employed by HSs in the interview protocol, $\chi^2 (12, N = 1604) = 54.786, p = .000$. Although the PF was employed in high frequencies among the three HS proficiency groups (30.0% of all verbs employed to express futurity by HSs were PF), we do find differences in the distribution of several of the forms employed to express futurity. For example, the HS-IH and the HS-ADV groups exhibited a preference for the PF (35.0% and 28.7%, respectively). However, the HS-IM participants favored the PI (28.6%), followed by the PF (24.4%) and the LF (23.2%). As stated in Chapter 2, monolingual native speakers of Spanish favored the PF when expressing futurity (e.g., Orozco, 2004; Sedano, 1994). Thus, the HS-IH and HS-ADV groups' preference to use the PF suggests

that they resemble native speakers in this respect. Interestingly, no clear developmental pattern can be observed regarding the production of the PF in the HS group. It is striking that HS-IH speakers produced the PF in 35.0% of future contexts, more frequently than their lower (24.4%) and the higher (28.7%) proficiency counterparts.

The results of the metalinguistic awareness protocol presented in the next chapter will shed more light on these patterns. It is also important to note that the number of participants in the HS-IM group was low ($n= 5$), which could make results subject to a Type I error (false positive). As detailed in Chapter 3, the low number was due to the difficulty of finding HS participants with a lower proficiency level in the circumscribed area where the study was conducted.

Similar to what was revealed with L2 groups, the overall frequencies of HSs' production of the MF, subjunctive, and conditional were relatively low (4.4%, 5.2%, and 5.0%, respectively). However, we do find an interesting developmental pattern regarding the use of the conditional and the subjunctive. For instance, we can observe that the subjunctive was only produced in three tokens (1.8%) in the HS-IM group. However, in the case of the HS-IH, it was employed slightly more frequently (2.7%). And, for the HS-ADV, we find that they produced the subjunctive with an even higher frequency (6.9%). This observation may be illustrative of a pattern that suggests that the use of the subjunctive increases in tandem with proficiency. But since this study is not a longitudinal one and the tokens in these categories are low, I cannot confirm this observation.

With regards to the conditional, this form exhibited a similar pattern than the subjunctive in the HS group. In other words, I detected parallel increases with proficiency

in the use of the subjunctive and conditional forms to express futurity. We see that, as speakers' proficiency increases, they are able to incorporate more morphologically complex verb forms when discussing future events.

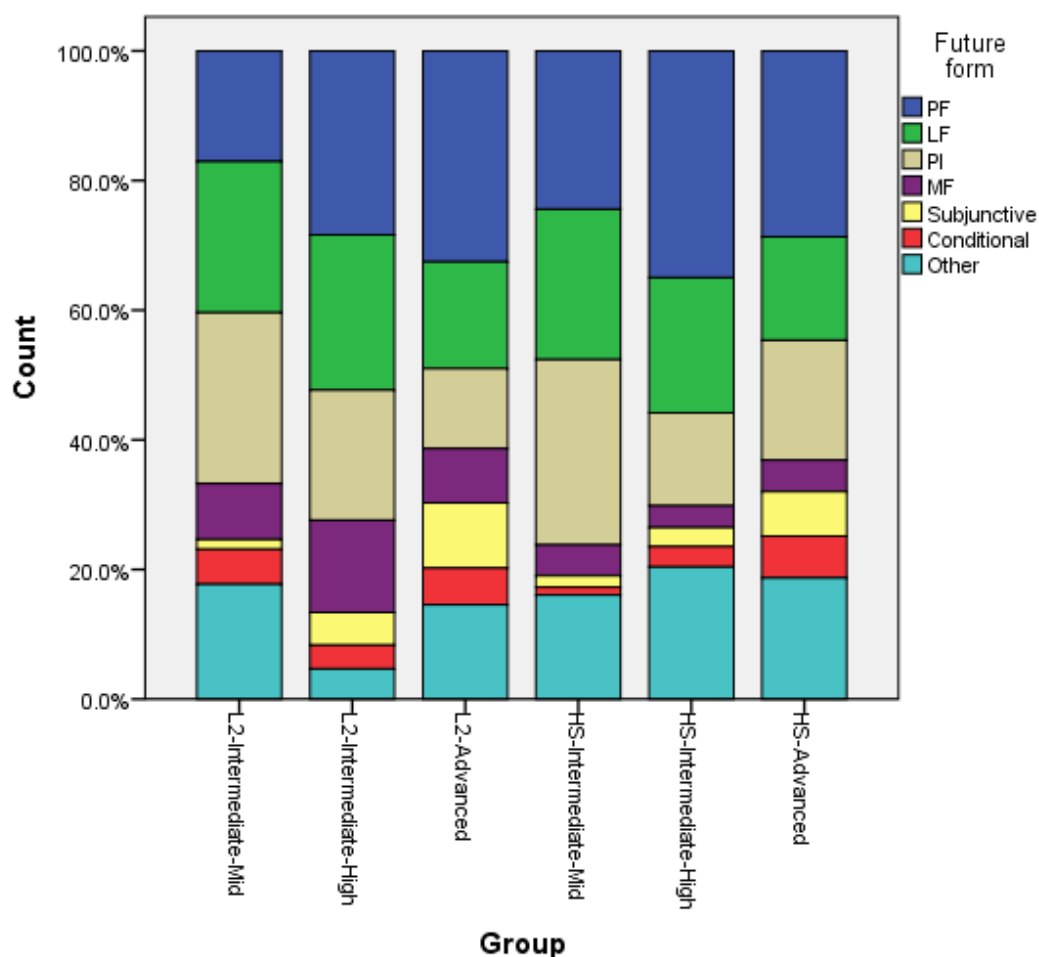
The category "other forms" (e.g., non-inflected verbs, present progressive, imperfect) was preferred by HSs overall in 18.9% of the tokens. However, the data does not show a clear developmental pattern regarding the production of these forms. The use of non-inflected verbs by HSs can be taken to suggest a tendency to avoid conjugated verbs, which can result in either simplification or circumlocution in their expression of futurity. This avoidance to conjugate verbs could be explained by incomplete acquisition (Montrul, 2014), missing input (Pires and Rothman, 2009), or because of low levels of activation of Spanish (Putnam and Sánchez, 2013). The present study did not yield enough information on the patterns of language use of the participants to corroborate these hypotheses, since they fall outside of the scope of this study. Regarding the present progressive, this form is employed to express futurity in English (e.g., Torres Cacoulios and Walker, 2009) and in certain varieties of Spanish (e.g., Aponte Alequín and Ortiz López, 2010; Cortés-Torres, 2005). Therefore, the use of the present progressive by HSs could be due to transfer effects and language contact in bilingual communities (Perez-Cortes, 2012), or to the Spanish dialect that HSs are exposed to. Further discussion regarding these suggestions will be addressed in the discussion of findings in Chapter 7.

Having analyzed the expression of futurity in L2 learners and HSs of different proficiency levels, in the following section I compare the results of both groups.

4.1.4. Group comparisons of expression of futurity in L2 learners and heritage speakers

The previous two sections have analyzed the verb forms employed to express futurity by L2 learners and HSs of three proficiency levels (i.e., IM, IH, and ADV). The goal of this section is to compare the developmental patterns of expression of futurity in L2 learners and HSs. To aid in the comparison of the participant groups, Figure 4-1 depicts the future verb forms employed by each group.

Figure 4-1. Future verb forms employed by each L2 and HS proficiency group in the interview protocol



In Figure 4-1 we find that, in general, both the L2 and the HS groups produced high frequencies of the PF, LF, and PI, and lower frequencies of the MF, subjunctive, and conditional. A closer look at the data in Figure 4-1 reveals that there are both similarities and differences in the developmental patterns regarding the expression of futurity in the L2 and HS groups.

Several similarities were found in the developmental patterns of the L2 and HS groups. For instance, in general, both intermediate-high and advanced L2 learners and HSs favored using the PF when expressing occurrences or plans for future events. However, their intermediate-mid counterparts favored the use of the PI (and the LF to a lesser extent). Another similarity is that both the L2 learners and the HSs showed a similar development in their use of the LF, which decreased across the proficiency continuum. The opposite trend was found regarding the use of the subjunctive, which increased with proficiency in both the L2 and HS groups. In other words, L2 learners and HSs shared certain developmental patterns regarding the expression of futurity. These similarities can be taken to suggest that proficiency level plays a role in future time expression across speakers with different language acquisitional stages and experiences. Additional Chi-Square tests were run to determine whether the differences in the distribution of the variants (e.g., PF, LF, PI) were statistically significant according to the proficiency level of L2 learners and HSs. The results revealed that the relationship between these variables was significant for each future verb form ($p = .000$).

The data generated by the interview protocol also revealed that there were differences in the developmental patterns of the L2 and HS groups. For example, HSs employed the PF more frequently than L2 learners overall. Specifically, HS-IM

participants produced the PF with a higher frequency than their L2-IM counterparts. Another difference between L2ers and HSs is that L2 learners produced a higher percentage of MF than their HS counterparts, possibly due to instructional effects or input. In contrast, HSs produced higher frequencies of non-inflected verbs (in the “other” category) than L2 learners, which may be due to an avoidance of inflectional morphology (Montrul, 2012). To determine whether the differences between L2 learners and HSs were statistically significant, I ran additional Chi-Square tests. The results revealed that at the IM level the overall distribution of verb forms was not significantly different in the L2 and HS groups ($p = .074$). In contrast, the differences between L2 learners and HSs in the frequencies of use of future verb forms were significant at the IH and ADV levels ($p = .000$).

In sum, comparisons suggest that both the proficiency level and the age of acquisition of a language (i.e., type of speaker: L2er or HS) affect the distribution of the verb forms participants employed to express futurity.

4.1.5. Summary of key findings: Expression of futurity across proficiency levels

The previous sections have presented the results of the quantitative analysis regarding the verb forms employed to express futurity by intermediate-mid, intermediate-high, and advanced L2 learners and HSs. In summary, and to respond to RQ1, which attempted to uncover the developmental patterns of each speaker group, key findings can be summarized as the following:

- (1) L2 learners and HSs favored the PF when expressing futurity.

- (2) The L2-IH, L2-ADV and the HS-IH and HS-ADV groups employed the PF with a higher frequency than their L2-IM and HS-IM counterparts, which suggests that the higher proficiency participants seem to approximate monolingual native speakers.
- (3) IM speakers of both groups (L2 and HS) showed a greater reliance on the PI and the LF to express futurity than the other groups.
- (4) The frequencies of use of the MF were low, and L2 learners employed this verb form twice as frequently as HSs.
- (5) The subjunctive and conditional forms were infrequently used to express future. That said, the use of these forms increased across the proficiency continuum in both the L2 and the HS groups.

The previous sections have addressed RQ1 by analyzing the developmental trends in the expression of futurity by L2 learners and HSs of three proficiency levels. Chapter 7 will present an extensive discussion of these findings in the context of the previous research. To further elucidate on the patterns reported above, the next sections address RQ2 by examining the linguistic and external constraints that conditioned the use of the future forms in the interview protocol.

4.2. Analysis of the linguistic constraints and expressions of futurity

This section presents the analysis of the verb forms employed to express futurity in the corpus generated by the interview protocol, with a focus on the effects of the linguistic constraints (e.g., temporal distance and clause type). As detailed in the methodology chapter, the interview protocol issued 18 questions to engage the use of

futurity by the interviewees, as well as 18 additional questions that served as distractors¹⁰.

The goal of this section is to address the first part of research question two, which inquired about the linguistic constraints that condition the verb forms employed to express futurity by L2 learners and heritage speakers of different proficiency levels. As detailed in Chapter 3, this study examined the following semantic and grammatical linguistic constraints: verb form, temporal distance in the question, quantity of temporal adverbials, type of temporal adverbials, syntactic position of temporal adverbials, main or subordinate clause type, semantic type of verb, and markers of certainty. The subsections that follow examine whether the aforementioned linguistic constraints conditioned the frequency and the range of verb forms the L2 and HS participants employed to express futurity in the interview protocol. In addition, the analysis of the constraint of temporal adverbials will also draw data from the preference task (Appendix C). As in the previous section, Chi-Square tests of independence were performed to determine whether there is a statistically significant relationship between two variables (e.g., verb form and temporal distance). A complementary analysis using multinomial logistic regressions was also performed and is presented in Section 4.2.6.

4.2.1. Temporal distance

The first linguistic constraint discussed here is temporal distance, which measures how far in the future an event will occur, namely, how remote it is in time from the time of utterance (Comrie, 1985). As described in Chapter 2, there seems to be a consensus in the literature on native speakers regarding the expression of futurity and temporal

¹⁰ See appendix A.

distance. Studies have found that the MF is more likely to occur in the distant future, and the PF and the PI tend to refer to the near future (Blas Arroyo, 2008; Sedano, 1994; Orozco, 2005). Thus, this constraint helped determine whether temporal distance conditioned the expression of verb forms L2ers and HSs employ to express future time.

Remember that this study coded for six temporal distances:

- 1- later that day,
- 2- the next day,
- 3- the next weekend,
- 4- in two months,
- 5- after graduation, and
- 6- in ten years.

First, we focus on the intermediate-mid group, then on the intermediate-high group, and finally on the advanced proficiency group.

Table 4-4a. The distribution of expressions of futurity in the interview protocol according to temporal distance in the L2-IM group

Group	Expressions of futurity	Temporal distance						Total
		Later that day	Next day	Next week-end	In two months	After graduation	In ten years	
L2-IM	PF	10.1% (8)	17.7% (14)	16.5% (13)	21.5% (17)	15.2% (12)	19.0% (15)	100.0% (79)
	LF	11.1% (12)	12.0% (13)	10.3% (12)	9.4% (11)	42.7% (50)	15.4% (18)	100.0% (108)
	PI	24.6% (30)	27.0% (33)	13.9% (17)	13.9% (17)	3.3% (4)	17.2% (21)	100.0% (122)
	MF	5.0% (2)	0.0% (0)	20.0% (8)	25.0% (10)	7.5% (3)	42.5% (17)	100.0% (40)
	Subj.	0.0% (0)	0.0% (0)	14.3% (1)	0.0% (0)	14.3% (1)	71.4% (5)	100.0% (7)
	Cond.	4.0% (1)	8.0% (2)	32.0% (8)	8.0% (2)	12.0% (3)	36.0% (9)	100.0% (25)
	Other	17.1% (14)	6.1% (5)	15.9% (13)	34.1% (28)	11.0% (9)	15.9% (13)	100.0% (82)
	Total	14.5% (67)	14.5% (67)	14.9% (69)	17.9% (83)	16.4% (76)	21.8% (101)	100.0% (463)

$p = .000$

Table 4-4a reveals that the L2-IM learners of the study employed the PF, the most pervasively produced future form in the corpus, to express futurity in multiple temporal distances. Specifically, we find that the highest frequency of PF was used to refer to events that occurred ‘in two months’ (21.5%) and this category of time was followed by events occurring ‘in ten years’ (19.0%). This finding aligns with Kanwit (2014), who also found that L2 learners employed the PF across temporal distances. In addition, this result suggests that the L2-IM participants do not approximate native speakers in this regard, since NSs tended to use the PF to refer to the near future (Blas Arroyo, 2008).

The LF was more frequently used with the temporal distance that referred to events that will take place after graduation (42.7%). Remember that the LF expresses futurity by combining a modal verb denoting the speakers’ attitude about an event (e.g.,

desire or volition such as *quiero viajar* ‘I want to travel’) followed by an infinitive. Since a large percentage of the participants of the study were not certain about their plans after graduation, it is possible that they relied on the LF (which is overtly modal) to discuss what they wanted to accomplish after graduating.

The PI (which was the preferred form to express futurity by L2-IM speakers) was more frequently used to refer to the two temporal distances that are closest to the present: Later that day (24.6%) and the next day (27.0%). In other words, the PI was used to express near, immediate, or close events. As mentioned above, NSs also tend to use the PI to refer to the near future. Thus, it seems that L2-IM learners already exhibit a behavior that is similar to monolingual native speakers of Spanish in terms of this linguistic constraint, or that the PI represents a form with less complex morphology and is therefore favored in these contexts.

Although the tokens are low in this category, the MF and the subjunctive were frequently used in utterances referring to events that will occur in ten years (42.5% and 71.4%, respectively), which are hypothetical contexts. In the case of the MF, this tendency resembles NS speech. We cannot situate the results of the subjunctive within the context of other studies since studies on the expression of futurity by NSs have not examined this verb form with regards to future temporal distance. We can, however, suggest that the subjunctive may be used in contexts referring to the distant future because of modality. The subjunctive tends to convey uncertainty, and speakers are usually less certain about their plans in the distant future than in the immediate future.

The category of other verb forms (e.g., non-inflected verbs, present progressive), was employed across future verb forms at this proficiency level, although we do find that

it was employed more frequently with the timeframe referring to in two months (34.1%).

The preference to employ non-inflected verbs or the present progressive in instances in which participants were discussing events that would occur in two months may be conditioned by a desire to simplify the expression of future while at the same time competing to discuss plans for the future. However, this explanation is only suggestive and falls outside the scope of this study.

The next table presents the data for the L2-IH group with respect to the constraint of temporal distance.

Table 4-4b. The distribution of expressions of futurity in the interview protocol according to temporal distance in the L2-IH group

Group	Expressions of futurity	Temporal distance						Total
		Later that day	Next day	Next week-end	In two months	After graduation	In ten years	
L2-IH	PF	12.1% (17)	9.2% (13)	13.5% (19)	17.7% (25)	14.9% (21)	32.6% (46)	100.0% (141)
	LF	18.4% (21)	8.8% (10)	6.1% (7)	23.7% (27)	25.4% (29)	17.5% (20)	100.0% (114)
	PI	20.2% (19)	19.1% (28)	21.3% (20)	14.9% (14)	9.5% (9)	14.9% (14)	100.0% (99)
	MF	4.3% (3)	11.4% (8)	22.9% (16)	4.3% (3)	25.7% (18)	31.4% (22)	100.0% (70)
	Subj.	12.0% (3)	0.0% (0)	4.0% (1)	4.0% (1)	40.0% (10)	40.0% (10)	100.0% (25)
	Cond.	0.0% (0)	0.0% (0)	10.5% (2)	10.5% (2)	47.4% (9)	31.6% (6)	100.0% (19)
	Other	12.0% (3)	16.0% (4)	20.0% (5)	24.0% (6)	16.0% (4)	12.0% (3)	100.0% (25)
	Total	13.8% (67)	10.7% (54)	14.4% (71)	16.0% (78)	20.8% (102)	24.3% (121)	100.0% (493)

$p = .000$

In Table 4-4b we find that the PF was also frequently used with multiple temporal distances in the L2-IH group. Overall, we observe that participants frequently employed the PF with the time frames referring to the contexts distant from the present (i.e., in two

months, after graduation, and in ten years). Specifically, the use of the PF by L2-IH participants was found with the highest frequency in events referring to ‘ten years’ in the future (32.6%).

We can also observe that the L2-IH participants exhibit a preference to use the LF in instances in which they were discussing events related to ‘after graduation’ (25.4%), similar to their L2-IM counterparts. We should note that the LF was also frequently employed with time frames that conveyed actions ‘in two months’ (23.7%).

Table 4-4b also reveals that the MF was frequently used in temporal distances referring to events that will occur ‘after graduation’ (31.4%), ‘in ten years’ (25.7%), and, ‘next weekend’ (22.9%). The tendency to employ the MF to refer to the distant future resembles NS speech (Blas Arroyo, 2008; Lastra and Butragueño, 2010; Sedano, 1994).

The subjunctive and the conditional forms were also frequently employed in utterances referring to events in the distant future although the instances in which these forms were used were subtle.

The category “other” verb forms, which includes mostly non-inflected verbs and present progressive, was also produced with multiple temporal distances. However, it appears that L2-IH participants used “other” verb forms more frequently when referring to events taking place ‘in two months’ (24.0%) and ‘next weekend’ (20.0%).

In Table 4-4c we observe the distribution of future forms for the L2 advanced group in the interview protocol.

Table 4-4c. The distribution of expressions of futurity in the interview protocol according to temporal distance in the L2-ADV group

Group	Expressions of Futurity	Temporal distance						Total
		Later that day	Next day	Next week-end	In two months	After graduation	In ten years	
L2-ADV	PF	21.2% (28)	12.1% (16)	15.2% (20)	23.5% (31)	14.4% (19)	13.6% (18)	100.0% (132)
	LF	17.9% (12)	16.4% (11)	6.0% (4)	7.5% (5)	23.9% (16)	28.4% (19)	100.0% (67)
	PI	16.0% (8)	22.% (10)	16.0% (8)	30.0% (15)	6.0% (3)	10.0% (5)	100.0% (50)
	MF	2.9% (1)	0.0% (0)	2.9% (1)	14.7% (5)	14.7% (5)	64.7% (22)	100.0% (34)
	Subj.	2.4% (1)	4.9% (2)	4.9% (2)	7.3% (3)	24.4% (10)	56.1% (23)	100.0% (41)
	Cond.	4.3% (1)	0.0% (0)	0.0% (0)	4.3% (1)	73.9% (17)	17.4% (4)	100.0% (23)
	Other	18.6% (11)	1.7% (1)	6.8% (4)	35.6% (21)	15.3% (9)	22.0% (13)	100.0% (59)
	Total	15.3% (62)	10.1% (41)	9.6% (39)	20.0% (81)	19.5% (79)	25.6% (104)	100.0% (406)

$p = .000$

Table 4-4c reveals that L2-ADV learners employed the PF across temporal distances when they expressed futurity in the interview protocol. This finding echoes the results in the L2-IM and L2-IH groups, and it suggests that the L2 learners do not approximate native speakers in this regard since NSs tend to use the PF to refer to near future events (e.g., Blas Arroyo, 2008; Lastra and Butragueño, 2010; Silva-Corvalán and Terrell, 1989).

Concerning the use of the LF, the L2-ADV group shows a tendency to use the LF when referring to the distant time frames such as ‘after graduation’ (23.9%) and ‘in ten years’ (28.4%). We can also note that the frequencies of use of LF referring to distances in the medium future (i.e., the next weekend and in two months) were relatively low (6.0% and 7.5%, respectively).

With regard to the use of the PI, remember that the PI was used more frequently with the two temporal distances that are closest to the present in the L2-IM group (i.e., later that day and the next day). In the L2-IH group, the PI was frequently employed to refer to the next weekend in addition to later that day and the next day. Table 4-4c shows that at the L2-ADV level, in addition to referring to the aforementioned temporal distances, the PI was also frequently employed to refer to the distance ‘in two months’ (30.0%). It is important to note that the tokens and frequencies of the PI referring to the two most distant time frames are very low. Thus, we can suggest that the L2-ADV participants of the study disfavored the use of the PI when referring to the distant future.

Table 4-4c also reveals that the MF was frequently employed in utterances referring to events or actions related to ‘in ten years’ (64.7%, a higher frequency than that exhibited in tables 4-4a and 4-4b by the L2-IM and L2-IH). Therefore, we find a developmental pattern with regards to the use of the MF: the frequency of use of the MF increases as the level of proficiency does. Recall that the literature reveals that monolingual Spanish speakers are more likely to use the MF to refer to events in the distant future. Thus, the results of the present study suggest that L2 learners resemble NSs in their use of MF in distant contexts more as their Spanish proficiency level increases.

The subjunctive and the conditional were almost exclusively employed in contexts that referred to time frames that were related to ‘after graduation’ and events in occurring ‘in ten years’, what I have considered the distant future. However, the tokens reflected in the table are relatively low, and no further suggestions can be made until we proceed to the qualitative analysis in Chapter 5.

The category “other”, which refers to other future-related forms, was used to express future time in multiple temporal distances in the interview data of the advanced L2 speakers. We should note, however, that the L2-ADV employed other forms more frequently to convey future within the timeframe of ‘two months’ (35.6%) for which we cannot offer an explanation.

To summarize, L2 learners as a group exhibited the following tendencies regarding temporal distance and expression of futurity in their responses to the interview protocol:

- (1) L2 learners used the PF, the most frequently produced verb form to convey future, with multiple temporal distances across proficiency levels.
- (2) L2-IM, L2-IH, and L2-ADV favored the production of LF to express futurity in the contexts referring to the three temporal distances that were further distant from the present.
- (3) Across proficiency levels, L2 learners used the PI to discuss events related to ‘later that day’ and ‘the next day’.
- (4) At the higher proficiency levels, L2 learners used the PI to convey not only immediate events but also events occurring the next weekend (L2-IH) and in two months (L2-ADV).
- (5) The L2 learners of the study tended to use the MF to refer to events or actions in the distant future, and the strength of this relationship increased with L2 proficiency.
- (6) Although relatively low in use, the L2 learners also employed the subjunctive and the conditional in contexts that referred to the distant future.

(7) L2 participants employed future verbs forms in the category coded as “other”

(including mostly non-inflected verbs and present progressive) with multiple temporal distances, although they seem to prefer to use these forms to refer to events occurring in two months.

Taken together, these results reveal that the constraint of temporal distance mediated the expressions of futurity in L2 learners’ responses at all three proficiency levels.

Having analyzed the constraint of temporal distance in L2 learners, we now turn our attention to HS speakers. Tables 4-5a through 4-5c present the distribution of future verb forms according to temporal distance in the HS groups. We begin by analyzing the data for the L2-IM group.

Table 4-5a. The distribution of expressions of futurity in the interview protocol according to temporal distance in the HS-IM group

Group	Expres- sions of futurity	Temporal distance						Total
		Later that day	Next day	Next week- end	In two months	After gradua- tion	In ten years	
HS-IM	PF	22.0% (9)	12.2% (5)	14.6% (6)	29.3% (12)	9.8% (4)	12.2% (5)	100.0% (41)
	LF	7.7% (3)	12.8% (5)	10.3% (4)	15.4% (6)	30.8% (12)	23.1% (9)	100.0% (39)
	PI	10.4% (5)	20.8% (10)	12.5% (6)	12.5% (6)	16.7% (8)	27.1% (13)	100.0% (48)
	MF	0.0% (0)	25.0% (2)	12.5% (1)	12.6% (1)	12.5% (1)	37.5% (3)	100.0% (8)
	Subj	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	33.3% (1)	66.7% (2)	100.0% (3)
	Cond	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	100.0% (2)	100.0% (2)
	Other	3.7% (1)	14.8% (4)	18.5% (5)	3.7% (1)	25.9% (7)	33.3% (9)	100.0% (27)
	Total	10.7% (18)	15.5% (26)	13.1% (22)	15.5% (26)	19.6% (33)	25.6% (43)	100.0% (168)

$p = .000$

From Table 4-5a we can make several observations, although we find that the number of tokens in several categories is low. Remember that the PF was the preferred form overall to express futurity in the corpus generated from the interview protocol. In this table, we find that HS-IM participants used the PF with multiple temporal distances. Specifically, the HS-IM group tends to employ the PF with events occurring ‘later that day’ (22.0%) and ‘in two months’ (29.3%). The HS-IM also show a preference to use the LF in instances in which they discussed events occurring ‘after graduation’ (30.8%). This group relied on the expression of PI for events taking place ‘next day’ (20.8%) and ‘in ten years’ (27.1%).

The MF, the subjunctive, and the conditional forms were used in very low frequencies in the data generated by this HS-IM group. Despite the low frequency of use of the MF, we see that it was used more frequently in contexts occurring in the distant future and that it was not produced in contexts occurring in the near future.

Finally, and also represented in low frequencies, the category of “other future verb forms” (mostly non-inflected verbs and present progressive) appeared to be used by this group to refer to events relating to a distant future, such as ‘after graduation’ (25.9%) and those referring to actions or events ‘in ten years’ (33.3%).

Next, in Table 4-5b, we examine the distribution of future verb forms according to temporal distance in the HS-IH group.

Table 4-5b. The distribution of expressions of futurity in the interview protocol according to temporal distance in the HS-IH group

Group	Expressions of futurity	Temporal distance						Total
		Later that day	Next day	Next week-end	In two months	After graduation	In ten years	
HS-IH	PF	16.7% (26)	8.3% (13)	15.4% (24)	21.8% (34)	17.3% (27)	20.5% (32)	100.0% (156)
	LF	2.2% (2)	2.2% (2)	9.7% (9)	28.0% (26)	35.5% (33)	22.6% (21)	100.0% (93)
	PI	14.1% (9)	26.6% (17)	15.6% (10)	18.8% (12)	10.9% (7)	14.1% (9)	100.0% (64)
	MF	0.0% (0)	26.7% (4)	20.0% (3)	0.0% (0)	20.0% (3)	33.3% (5)	100.0% (15)
	Subj	0.0% (0)	0.0% (0)	0.0% (0)	7.7% (1)	46.2% (6)	46.2% (6)	100.0% (13)
	Cond	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	35.7% (5)	64.3% (9)	100.0% (14)
	Other	11.0% (10)	17.6% (16)	17.6% (16)	15.4% (14)	16.5% (15)	22.0% (20)	100.0% (91)
	Total	10.5% (47)	11.7% (52)	13.9% (62)	19.5% (87)	21.5% (96)	22.9% (102)	100.0% (446)

$p = .000$

Consistent with previous findings, Table 4-5b reveals that the participants in the HS-IH group favored the use of the PF in the interview protocol. In this group, the highest frequencies of use of the PF were found in utterances referring to the distant future, especially referring to events occurring ‘in two months’ (21.8%) and ‘in ten years’ (20.5%).

With respect to the LF, we find similar patterns to the ones found in the use of the PF in that HS-IH speakers tended to express the LF in the three temporal distance categories referring to distant future: ‘in two months’ (28.0%), ‘after graduation’ (35.5%), and ‘in ten years’ (22.6%). These patterns resemble the linguistic behavior of the HS-IM group.

With regards to the PI, we find that HS-IH speakers used it to express future in all

temporal distances, yet this form was more frequently expressed in the contexts referring to events or actions occurring the next day (26.6%).

The production of the MF was low in the HS-IM group. Strikingly, the use of the MF was not related to a specific temporal distance. Similarly, and concerning the production of the subjunctive and conditional, once again we find minimal use of these forms to convey futurity.

Finally, “other” verb forms (mostly non-inflected verbs and present progressive) were used with multiple temporal distances in the interview data of the speech of the HS-IH. For instance, they frequently employed other verb forms to refer to the next day (17.6%), the next weekend (17.6%), and to the distance related to ten years in the future (22.0%).

Next, in Table 4-5c, we examine the distribution of the expressions of futurity according to temporal distance in the HS-ADV group.

Table 4-5c. The distribution of the expressions of futurity in the interview protocol according to temporal distance in the HS-ADV group

Group	Expressions of futurity	Temporal distance						Total
		Later that day	Next day	Next week-end	In two months	After graduation	In ten years	
HS-ADV	PF	7.7% (22)	10.6% (30)	20.8% (59)	18.3% (52)	13.4% (38)	29.2% (83)	100.0% (284)
	LF	15.2% (24)	12.8% (20)	7.6% (12)	19.0% (30)	32.9% (52)	12.7% (20)	100.0% (158)
	PI	11.5% (21)	24.0% (44)	26.2% (48)	18.6% (34)	7.7% (14)	12.0% (22)	100.0% (183)
	MF	16.7% (8)	2.1% (1)	18.8% (9)	8.3% (4)	31.3% (15)	22.9% (11)	100.0% (48)
	Subj	7.4% (5)	8.8% (6)	5.9% (4)	5.9% (4)	16.2% (11)	55.9% (38)	100.0% (68)
	Cond	0.0% (0)	1.6% (1)	1.6% (1)	6.3% (4)	51.6% (33)	39.1% (25)	100.0% (64)
	Other	18.4% (34)	9.2% (17)	10.3% (19)	21.1% (39)	12.4% (23)	28.6% (53)	100.0% (185)
	Total	11.5% (114)	12.0% (119)	15.4% (152)	16.9% (167)	18.8% (186)	25.5% (252)	100.0% (990)

$p = .000$

Table 4-5c reveals, similar to the patterns reflected in previous tables, that the PF was produced in utterances that referred to multiple temporal distances in the HS-ADV group. Specifically, the highest frequency of PF use was found in responses referring to events that would take place ‘in ten years’ (29.2%) and ‘the next weekend’ (20.8%).

Similar to the patterns reported on the PF, we also find that the PI and the category “other” verb forms (mostly non-inflected verbs and present progressive) were employed across all future temporal distances by the HS-ADV speakers of the study. In other words, one clear pattern did not emerge.

Regarding the LF, the table illustrates that this verb form was mainly used to refer to actions or events that occurred in the distant future, and especially in the context referring to events or plans ‘after graduation’ (32.9%).

The MF, although represented in low figures, was generally produced in contexts that referred to the distant future, namely ‘after graduation’ (31.3%) and ‘in ten years’ (22.9%).

Unlike their less proficient counterparts, the HS-ADV group employed the subjunctive and the conditional with higher frequencies to refer to future time events. These verb forms were more frequently used with the time frames referring to the distant future as well.

In summary, this section has responded in part to RQ2a of the study, which inquired about the linguistic constraints that condition the use of future verb forms in L2 learners and HSs of three proficiency levels. The following tendencies were found regarding temporal distance and expression of futurity by heritage speakers:

- (1) HSs of all proficiency levels used the PF to express futurity with multiple temporal distances.
- (2) HSs of all proficiencies also produced the PI across temporal distances. A mild preference to use the PI was found to refer to events or actions taking place the next day.
- (3) HSs used the LF in contexts related to the distant future, although this relationship was slightly weaker in the HS-ADV group.
- (4) HS participants did not exhibit a tendency to use MF, the subjunctive and the conditional to refer to future events. When they employed these forms, it was frequently to refer to the distant future.
- (5) The category of future forms coded as “other” (including mostly non-inflected verbs and present progressive) was employed across temporal distances by

HSs.

As noted in the review of the literature, studies on monolingual Spanish speakers have found that the MF is more likely to occur in the distant future, and the PF and the PI tend to refer to the near future (Blas Arroyo, 2008; Orozco, 2005; Sedano, 1994). Therefore, the results of this study reveal that both L2 learners and HSs resemble NSs in their use of the MF to refer to events occurring in the distant future. However, only the L2 learners showed a tendency to prefer to use the PI to refer to the near future similar to monolingual speakers. In addition, neither group (i.e., L2 learners and HS) preferred the PF to refer to events or actions occurring in the near future. These results may indicate that the L2 learners and the HSs of the study have a less defined preference regarding temporal distance than their monolingual NS counterparts. The results of the metalinguistic awareness questionnaire presented in the next chapter may help shed more light on the effects of temporal distance in participants' expression of futurity in this study.

4.2.2. Temporal adverbials

Having examined the relationship between temporal distance and expression of futurity, we now turn our attention to another linguistic constraint: use of temporal adverbial markers. This section will analyze data regarding three related constraints: the quantity of temporal adverbials, the type of temporal adverbials, and the syntactic position of temporal adverbials. The goal of examining temporal adverbials was to account for redundancy in participants' expression of futurity as well as to ascertain whether the use of temporal adverbials affected the forms participants used to express

futurity in the interview protocol. Recall that in addition to the analysis of the responses to the interview protocol, we will also draw data from the preference task to further examine the role of temporal markers.

The analysis of the three constraints regarding temporal adverbials (i.e., quantity, type, and position of temporal adverbials) will differ from the analysis of the other linguistic constraints. Specifically, this section will not analyze the distribution of temporal adverbials in the interview protocol across proficiency levels. Instead, the three L2 proficiency groups will be collapsed into a single L2 group, and the three HS proficiency groups will be collapsed into a single HS group. The reason for this modification in the analysis is twofold: First, since over two-thirds of the utterances expressing futurity did not contain a temporal marker, the statistical package SPSS found a large number of cells that had an expected count of less than five (the optimal number to run the analysis). Second, possibly because of the number of cells with low counts, Chi-Square tests of the constraints regarding temporal markers and proficiency levels did not yield significant results. Therefore, this section will analyze the production of verb forms according to the presence and type of temporal adverbials for L2 learners and HSs as two groups.

We begin by analyzing the constraint of quantity of temporal adverbials, which was designed to account for the use of one or more temporal adverbials in a single utterance. In other words, this constraint accounts for redundancy. The constraint accounting for the quantity of temporal adverbials was coded as follows:

- no temporal adverbials (e.g., *Voy a estudiar*. 'I am going to study.'),

- one temporal adverbial (e.g., *Mañana voy a estudiar*. ‘Tomorrow I am going to study.’), and
- two or more temporal adverbials (e.g., *Mañana el sábado voy a estudiar*. ‘Tomorrow Saturday I am going to study.’).

The next table presents the distribution of expressions of futurity according to the quantity of temporal adverbials in the utterances of the L2 group.

Table 4-6. The distribution of expressions of futurity in the interview protocol according to the quantity of temporal adverbials in the L2 group

Expressions of futurity	Quantity of temporal adverbials			Total
	No temporal adverbials	One	Two or more	
PF	63.4% (223)	33.8% (119)	2.8% (10)	100.0% (352)
LF	67.8% (196)	29.4% (85)	2.8% (8)	100.0% (289)
PI	57.2% (155)	40.2% (109)	2.6% (7)	100.0% (271)
MF	73.6% (106)	24.3% (35)	2.1% (3)	100.0% (144)
Subj	79.5% (58)	20.5% (15)	0.0% (0)	100.0% (73)
Cond	79.1% (53)	20.9% (14)	0.0% (0)	100.0% (67)
Other	72.9% (121)	27.1% (45)	0.0% (0)	100.0% (166)
Total	67.0% (912)	31.0% (422)	2.1% (28)	100.0% (1362)

$p = .001$

Table 4-6 reveals that the L2 speakers of this study preferred not to use temporal adverbial markers when expressing futurity in the interview protocol (67.0%). Put differently, only approximately a third of expressions of futurity by L2 learners included a temporal adverbial maker. In reviewing the data more closely, we find that when L2 learners did use adverbial markers, they employed them most frequently when they

expressed futurity using the PI (i.e., 40.2% of instances of use of the PI included a temporal marker). This result is not surprising. As discussed in Chapter 2, the PI does not reflect morphology referring to future time. Therefore, language users rely on lexical marking to disambiguate meaning when expressing futurity. In other words, when L2 learners use the PI to express futurity, they sometimes add a temporal marker to provide their interlocutor with a timeframe. This finding aligns with Gudmestad and Geeslin (2011), who also found that the advanced L2 learners of the study favored the use of the PI when a lexical temporal indicator was present.

Of the utterances that included temporal adverbials, the majority (31.0%) included one single marker. The presence of two or more temporal markers in an utterance was rare in the L2 corpus (2.1%). For instance, the PF was frequently accompanied by a temporal marker (33.8%) but rarely appeared alongside two or more temporal markers (2.8%). We find a similar pattern in the other future verb forms. These findings suggest that overall the L2 learners of the study did not seem to rely on temporal markers to express futurity in Spanish. We can hypothesize that the interview protocol may have influenced these findings since the questions of the interview protocol contained temporal markers (e.g., *¿Cuáles son tus planes para el fin de semana?* ‘What are your plans for the upcoming weekend?’). Therefore, since the temporal framework was already explicitly mentioned in the question, it is possible that participants did not feel the need to express that information again, although they may have done so in other communicative contexts.

Next, Table 4-7 presents the distribution of future verb forms in the HS group according to the quantity of temporal adverbials.

Table 4-7. The distribution of expressions of futurity in the interview protocol according to the quantity of temporal adverbials in the HS group

Expressions of futurity	Quantity of temporal adverbials			Total
	No temporal adverbials	One	Two or more	
PF	70.1% (337)	29.3% (141)	0.6% (3)	100.0% (481)
LF	78.6% (228)	21.0% (61)	0.3% (1)	100.0% (290)
PI	51.5% (152)	45.1% (133)	3.4% (10)	100.0% (295)
MF	69.0% (49)	31.0% (22)	0.0% (0)	100.0% (71)
Subj	78.6% (66)	21.4% (18)	0.0% (0)	100.0% (84)
Cond	88.8% (71)	10.0% (8)	1.3% (1)	100.0% (80)
Other	81.3% (247)	17.5% (53)	1.0% (3)	100.0% (303)
Total	71.9% (1150)	27.0% (436)	1.1% (18)	100.0% (1604)

$p = .000$

In Table 4-7 we also note that most of the expressions of futurity produced by HSs did not contain a temporal adverbial marker. Specifically, 71.9% of the tokens in the HS corpus did not contain a temporal marker. A closer look at the data reveals that when HSs expressed temporal markers, they did so more frequently when they were discussing future events using the PI (45.1%). In other words, HSs produced temporal markers in about half of the utterances in which they employed the PI to express futurity. Similar to the L2 learner data examined above, this pattern can be taken to suggest that HSs are using temporal markers to compensate for the fact there is an absence of temporal morphology in PI. This finding also aligns with Gudmestad and Geeslin (2011), who found that NSs of Spanish employed lexical temporal indicators more frequently when they used the PI to express futurity. In other words, the HSs of the study seem to approximate monolingual native speakers in this regard.

When HSs employed temporal adverbials to express futurity, they included one single marker in most instances (27.0%). The presence of two or more markers in an utterance was very infrequent in the HS corpus (1.1%), which suggests that the HSs of the study were not redundant in their expression of temporal framework in the interview protocol.

To summarize the results thus far, we note that the majority of expressions of futurity by L2 learners and HSs did not contain a temporal adverbial marker, possibly because the questions in the interview protocol provided the time frame. Further, the data revealed that L2 learners produced a slightly higher rate of temporal markers than their HS counterparts (33.0% compared to 28.1%). Both L2 learners and HSs employed temporal markers more frequently when they expressed future events when using the PI, possibly to compensate and disambiguate meaning since the PI lacks future-time morphology.

We now draw our attention to the constraint that accounts for the type of temporal adverbials employed in the corpus. This constraint was coded for six types of temporal markers that correspond to the six temporal distances that are examined in this study:

- later that day,
- the next day,
- the next weekend,
- in two months,
- after graduation, and
- in ten years.

Recall that the coding guide also included an option for expressions of futurity

that did not include temporal adverbials (NA). Table 4-8 presents the results regarding the expression of futurity and type of temporal adverbials in the L2 group.

Table 4-8. The distribution of expressions of futurity in the interview protocol according to type of temporal adverbial in the L2 group

Expressions of futurity	Type of temporal adverbials							Total
	NA	Later that day	Next day	Next week-end	In two months	After graduation	In ten years	
PF	63.4% (223)	5.1% (18)	6.0% (21)	9.4% (33)	7.7% (27)	3.7% (13)	4.8% (17)	100.0% (352)
LF	67.8% (196)	6.9% (20)	6.9% (20)	2.4% (7)	5.5% (16)	5.5% (16)	4.5% (13)	100.0% (289)
PI	57.2% (155)	6.3% (17)	15.1% (41)	10.0% (27)	7.7% (21)	1.1% (3)	2.6% (7)	100.0% (271)
MF	73.6% (106)	1.4% (2)	1.4% (2)	7.6% (11)	6.3% (9)	2.8% (4)	6.9% (10)	100.0% (144)
Subj	79.5% (58)	0.0% (0)	1.4% (1)	0.0% (0)	2.7% (2)	9.6% (7)	6.8% (5)	100.0% (73)
Cond	79.1% (53)	0.0% (0)	3.0% (2)	10.4% (7)	3.0% (2)	1.5% (1)	3.0% (2)	100.0% (67)
Other	72.9% (121)	4.2% (7)	1.8% (3)	3.6% (6)	13.9% (23)	1.8% (3)	1.8% (3)	100.0% (166)
Total	67.0% (912)	4.7% (64)	6.7% (91)	6.7% (91)	7.3% (100)	3.5% (47)	4.2% (57)	100.0% (1362)

$p = .000$

Table 4-8 reveals that differences manifest regarding future time expression according to the presence and the type of temporal adverbials in the corpus generated by the L2 group ($p = .000$). Although the majority of the tokens in the L2 corpus did not include temporal adverbials, we do find that the distribution of expressions of futurity is different for the different types of temporal adverbials. For instance, Table 4-8 indicates that the PF was more frequently used with markers referring to events taking place the ‘next weekend’ (9.4%) and, ‘in two months’ (7.7%). Regarding the use of the PI, we find that this form was frequently employed together with temporal markers referring to the ‘next day’ (15.2%). In contrast, and although the tokens are represented in low numbers,

speakers preferred to use the subjunctive together with distant future markers (e.g., after graduation, 9.6%). We can also detect that even the MF was expressed with a temporal marker when participants referred to events taking place the ‘next weekend’ (7.6%).

These results concerning the L2 group are in line with the findings discussed in the previous section regarding temporal distance (see 4.2.1.), which suggested that the constraint of temporal distance mediated the future verb forms employed by the L2 participants of this study of all three proficiency levels.

The next table draws attention to the distribution of future verb forms according to the type of temporal adverbials in the HS group.

Table 4-9. The distribution of expressions of futurity in the interview protocol according to type of temporal adverbial in the HS group

Expressions of futurity	Type of temporal adverbials							Total
	NA	Later that day	Next day	Next week-end	In two months	After graduation	In ten years	
PF	70.3% (336)	2.9% (14)	3.5% (18)	7.5% (36)	7.1% (34)	3.5% (18)	5.2% (25)	100.0% (481)
LF	78.6% (228)	2.4% (7)	3.8% (11)	2.8% (8)	5.5% (16)	4.1% (12)	2.8% (8)	100.0% (290)
PI	51.1% (152)	7.1% (21)	14.2% (42)	13.9% (41)	7.8% (23)	2.0% (6)	3.4% (10)	100.0% (295)
MF	69.0% (49)	2.8% (2)	4.2% (3)	9.9% (7)	1.4% (1)	2.8% (2)	9.9% (7)	100.0% (71)
Subj	78.6% (66)	0.0% (0)	4.8% (4)	4.8% (4)	1.2% (1)	2.4% (2)	8.3% (7)	100.0% (84)
Cond	88.8% (71)	0.0% (0)	0.0% (0)	1.3% (1)	1.3% (1)	3.8% (3)	5.0% (4)	100.0% (80)
Other	81.8% (248)	2.3% (7)	3.6% (11)	4.3% (13)	3.0% (9)	1.7% (5)	3.3% (10)	100.0% (303)
Total	71.8% (1150)	3.2% (51)	5.5% (89)	6.9% (110)	5.3% (85)	2.9% (48)	4.4% (71)	100.0% (1604)

$p = .000$

Table 4-9 we note that the type of temporal adverbials conditioned the distribution of verb forms that the HS group used in the interview ($p = .000$). Although the majority of

expressions of futurity by HSs did not contain temporal adverbial markers (71.8%), it is noteworthy to explain that when HS employed temporal markers, the future verb forms they used were used more frequently with specific markers. For example, we find that HSs frequently employed the PF in utterances that included temporal markers referring to the next weekend (7.5%) and in two months (7.1%). The HS also expressed temporal markers when expressing events in the PI (i.e., ‘the next day’ 14.2%, and the ‘next weekend’ 13.9%, which refer to the near future).

To summarize, the data revealed that the L2 learners and the HSs of the study employed few temporal markers in their responses to the interview protocol. When they employed temporal markers, the different temporal markers tended to be issued alongside specific verb forms.

The last constraint related to temporal adverbials examined the position of the temporal adverbials in the utterances expressing future time. This constraint accounted for possible redundancy, compensation strategies, and circumlocution in participants’ expression of futurity. The coding for the position of temporal adverbials was as follows:

- no temporal adverbials,
- adverbial before the verb,
- adverbial after the verb, and
- adverbials before and after the verb.

The next table details the distribution of the verb forms employed to express futurity in the L2 group in relation to the syntactic position of the temporal adverbials in the utterance.

Table 4-10. The distribution of expressions of futurity in the interview protocol according to the position of temporal adverbials in the L2 group

Expressions of futurity	Position of temporal adverbials				Total
	No temporal adverbials	Before the verb	After the verb	Before and after the verb	
PF	63.4% (223)	25.9% (91)	9.7% (34)	1.1% (4)	100.0% (352)
LF	68.5% (196)	26.0% (77)	4.8% (14)	0.7% (2)	100.0% (289)
PI	56.8% (155)	25.5% (69)	16.6% (45)	1.1% (3)	100.0% (271)
MF	74.3% (106)	21.4% (31)	4.2% (6)	0.0% (0)	100.0% (144)
Subj	79.5% (58)	16.4% (12)	4.1% (3)	0.0% (0)	100.0% (73)
Cond	79.1% (53)	20.9% (14)	0.0% (0)	0.0% (0)	100.0% (67)
Other	72.9% (121)	22.9% (38)	4.2% (7)	0.0% (0)	100.0% (166)
Total	67.0% (912)	24.2% (332)	8.0% (109)	0.7% (9)	100.0% (1362)

$p = .000$

As previously noted, Table 4-10 reveals that 67.1% of utterances expressing futurity in the L2 corpus did not include a temporal adverbial marker. In other words, only approximately a third of expressions of futurity by L2 learners included a temporal adverbial marker. From the tokens that did include a temporal adverbial, we find that the speakers preferred to use a marker before the verb (24.2%). In Table 4-10 we observe that all forms favored temporal markers before the verb. For instance, expressions of futurity using the PF included markers before the verb in 25.9% of instances. In general, the preference to include temporal markers before the verb by the L2 group may be due to a myriad of factors: 1) L2 learners may use temporal adverbials as fillers to gain time to formulate the target verb form, 2) temporal adverbials before the verb may facilitate parsing of the sentence, especially in the case of the PI (a verb form that lacks temporal

morphology), and 3) to stress or point to a sense of time in their clauses as a pragmatic device.

The next table presents the data regarding the position of temporal adverbials in the HS group.

Table 4-11. The distribution of expressions of futurity in the interview protocol according to the position of temporal adverbials in the HS group

Expressions of futurity	Position of temporal adverbials				Total
	No temporal adverbials	Before the verb	After the verb	Before and after the verb	
PF	70.3% (338)	22.9% (110)	6.7% (32)	0.2% (1)	100.0% (481)
LF	78.6% (228)	14.1% (41)	7.2% (21)	0.0% (0)	100.0% (290)
PI	51.2% (151)	35.3% (104)	10.8% (32)	2.7% (8)	100.0% (295)
MF	69.0% (49)	25.4% (18)	5.6% (4)	0.0% (0)	100.0% (71)
Subj	78.6% (66)	11.9% (10)	9.5% (8)	0.0% (0)	100.0% (84)
Cond	88.8% (71)	6.3% (5)	5.0% (4)	0.0% (0)	100.0% (80)
Other	81.5% (247)	15.8% (48)	2.3% (7)	0.3% (1)	100.0% (303)
Total	71.7% (1150)	20.9% (336)	6.7% (108)	0.6% (10)	100.0% (1604)

$p = .000$

Consistent with the findings in the L2 group, in Table 4-11 we note that the majority (71.7%) of utterances expressing futurity by HSs did not include a temporal adverbial marker. From the tokens that did include a temporal adverbial, the temporal marker was located before the verb (20.9%). In other words, all future verb forms favored the expression of adverbs in the syntactic position before the verb. For example, future time expressions that employed the PI were over three times more likely to include a temporal adverb before the verb (35.3%) than after the verb (10.8%). The preference to

include temporal markers before the verb may be to facilitate the understanding of the sentence, especially in the case of the PI since it does not contain temporal morphology.

To summarize the findings regarding the position of temporal adverbials, we found that when an utterance expressing futurity contained temporal markers, both L2 learners and HSs exhibited a preference to express the marker before the verb. The trend of temporal markers being located before the verb applied to all future verb forms.

To recapitulate, this section thus far has presented the results of the analysis of the constraints regarding temporal adverbials in the interview protocol (i.e., the production task). It is important to highlight that over two-thirds of tokens expressing futurity did not contain temporal markers. Specifically, L2 learners produced a slightly higher rate of temporal markers than their HS counterparts (33.0% compared to 28.1%). Further, the PI was the verb form that was most frequently accompanied by temporal markers in both groups, possibly as a compensation strategy to disambiguate meaning since the PI does not have inflectional temporal morphology and could be interpreted as present tense.

To further examine the constraint regarding temporal adverbials, we now analyze the data generated from the preference task (PT), which aimed to examine participants' preference of instances of expression of futurity in Spanish focusing on temporal lexical markers. The results of the PT are presented in this section and not independently because the goal of this task was to complement the interview protocol in shedding light on participants' preferences regarding the lexical resources speakers use to express futurity. As detailed in Chapter 3, in the PT, participants read a short paragraph presenting a context, followed by three sentences that differed only regarding the lexical temporal markers accompanying the verb expressing futurity. Then, they were asked to

select the sentence that sounded better to them. Recall that, in condition 1, participants read sentences with a temporal marker before the verb that expresses futurity; in condition 2, participants read sentences with a temporal marker after the verb that expresses futurity; finally, in condition 3, participants read sentences without a temporal marker.

To analyze the data from the preference task, I performed a logistic regression using the statistical package SPSS. A multinomial logistic regression is a statistical model that is employed when the dependent variable (in this case, temporal marker) has more than two categories (e.g., temporal marker before the verb, temporal marker after the verb, and no temporal marker). This statistical test was performed to ascertain which constraints predicted the likelihood of participants selecting temporal markers in the PT. In the logistic regression model, the dependent variable included the three conditions tested in the PT (i.e., temporal marker before the verb, temporal marker after the verb, and no temporal marker). The independent variables included in the model were speaker type (i.e., L2 or HS), proficiency level (i.e., IM, IH, and ADV), expression of futurity (e.g., PF or PI) and temporal distance (i.e., near or distant future). The logistic regression model was statistically significant, $\chi^2(16) = 94.796, p < .000$. In other words, the model had explanatory power. Table 4-12 presents the results of the likelihood ratio test, which shows the contribution of each variable to the model. That is, Table 4-12 includes an overview of which independent variables were selected as significant predictors within the model for the totality of participants of the study.

Table 4-12. Summary of the results of the multinomial logistic regressions of the independent variables coded in the preference task: L2 learners and heritage speakers

Participant type	Proficiency level	Expressions of futurity	Temporal distance
	X**	X***	X***

Note¹¹: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4-12 reveals several noteworthy findings regarding the variables that conditioned the selection of temporal markers in the PT by the participants of the study. First, we find that the variables related to proficiency level, expressions of futurity, and temporal distance correlated with participants' preference with regards to temporal markers. Surprisingly, participant type (i.e., L2 or HS) was not a statistically significant predictor in this task. In other words, according to the model, L2 learners and HSs did not seem to behave significantly differently in the PT.

To further elucidate the data, we examined the effects that each significant predictor variable had on participants' choices in the PT. In multinomial logistic regressions, one of the categories within each variable (e.g., temporal marker before the verb) is used as a base category and provides a point of comparison for the analysis. In this case, "no temporal marker" was used as the reference category.

With regards to proficiency, the model predicted that the intermediate-mid participants select temporal markers more frequently in the PT than their advanced proficiency counterparts. Interestingly, this tendency was found for temporal markers after the verb, $OR = 2.291$ (95% CI 1.484 to 3.535), $p = .000$, but not for temporal markers before the verb ($p = .058$). Likewise, the model predicted that intermediate-high participants also select temporal markers after the verb more frequently than their

¹¹ Unlike the rest of the tables presented in the study, tables 4-12, 4-19, and 4-20 include asterisks indicating the strength of the p values. The goal of using asterisks is to help illustrate the differences in the strength in p values of different independent variables analyzed in the multinomial logistic regressions.

advanced counterparts, $OR = 1.690$ (95% CI 1.158 to 2.466), $p = .007$. However, the difference between the IH and ADV groups is also not significant with regards to markers before the verb ($p = .791$). To shed more light on proficiency differences in the PT, additional regressions were run with the dependent variable simplified to two levels (i.e., temporal marker or no temporal marker). The results revealed that IM participants were more likely to select sentences with temporal adverbials than ADV participants, $OR = 1.643$ (95% CI 1.173 to 2.303), $p = .004$. No significant differences in the selection of markers were found between IH and ADV participants when the dependent variable was simplified, $p = .377$. Overall, we find that lower proficiency speakers seem to rely more on temporal adverbials.

Regarding the future verb forms employed to express futurity, the model predicted that the participants show a tendency to favor the use of the PF and the LF without temporal adverbials, ($OR = .383$ (95% CI .188 to .778), $p = .008$ for the PF, and $OR = .370$ (95% CI .176 to .778), $p = .009$ for the LF. The tendency to select the PF and the LF (which have no future tense morphology) in sentences with no temporal adverbials may suggest the beginning of the grammaticalization of these verb forms.

Finally, temporal distance was also a significant predictor in the model. Both L2 and HS participants were more likely to select the option with no marker in contexts referring to events or actions in the near future, $OR = .508$ (95% CI .375 to .689), $p = .000$. In contrast, the statistical model predicted that participants were more likely to select the option with temporal markers after the verb in contexts referring to the distant future.

A triangulation of the findings revealed several observations about participants' choices of temporal markers in the preference task compared to participants' actual

production of temporal markers in the interview protocol. For instance, while proficiency was not a significant constraint in the interview protocol, the PT data revealed that proficiency did have an effect on participants' selection of temporal markers. For example, the model predicted that intermediate-mid participants select temporal markers more frequently than advanced proficiency speakers. Also, the rates of selection of temporal markers in the PT were higher than the production of temporal markers in the interview protocol. Thus, these results reveal task effects.

Having analyzed the constraint of temporal markers, we now shift our attention to the linguistic constraint examining clause type. Remember that this constraint sheds light on whether the speakers of this study expressed futurity in the main or subordinate clauses.

4.2.3. Clause type

This section examines the linguistic constraint of clause type, which analyzes the possible influence of the syntactic context of the sentence on the production of future verb forms (Blas Arroyo, 2008). That is, this constraint aims to account for whether the verbs expressing futurity in the interview protocol appeared in a main or in a subordinate clause.

Tables 4-13a through 4-14c examine the relationship between clause type and future verb form in each of the L2 and HS proficiency groups. I begin by analyzing the data for the L2-IM group.

Table 4-13a. The distribution of expressions of futurity in the interview protocol according to clause type in the L2-IM group

Group	Expressions of futurity	Clause Type		Total
		Main Clause	Subordinate Clause	
L2-IM	PF	65.8% (52)	34.2% (27)	100.0% (79)
	LF	95.4% (103)	4.6% (5)	100.0% (108)
	PI	78.7% (96)	21.3% (26)	100.0% (122)
	MF	70.0% (28)	30.0% (12)	100.0% (40)
	Subj	28.6% (2)	71.4% (5)	100.0% (7)
	Cond	80.0% (20)	20.0% (5)	100.0% (25)
	Other	80.5% (66)	19.5% (16)	100.0% (82)
	Total	79.3% (367)	20.7% (96)	100.0% (463)

$p = .000$

In Table 4-13a, we find that the distribution of future verb forms in the L2-IM group is statistically significant according to the clause type ($p = .000$). A more in-depth analysis of the future verb forms employed by IM-L2 speakers reveals two main findings: First, speakers showed a preference to use of the majority of future forms (i.e., PF, LF, PI, MF, conditional, and “other”) in main clauses. For instance, the LF was almost exclusively expressed in main clauses (95.4%). Second, the subjunctive was the only verb form that was favored in subordinate clauses (71.4%), although this finding should be taken with caution, since the number of tokens is low. These results align with Kanwit (2014), who also found that intermediate L2 learners preferred to use the PF, MF, LF, and PI in main clauses when expressing futurity. Kanwit (2014) also found that L2 learners produced the highest rate of LF in main clauses. In addition, the results of the present study also align with Kanwit and Solon (2013), who found that Spanish native

speakers in Mérida (Mexico) and Valencia (Spain) favored the PF and the PI in main clauses.

The next table presents the results of the L2-IH group.

Table 4-13b. The distribution of expressions of futurity in the interview protocol according to clause type in the L2-IH group

Group	Expressions of futurity	Clause Type		Total
		Main Clause	Subordinate Clause	
L2-IH	PF	56.7% (80)	43.3% (61)	100.0% (141)
	LF	89.5% (102)	10.5% (12)	100.0% (114)
	PI	76.8% (76)	23.2% (23)	100.0% (99)
	MF	50.0% (35)	50.0% (35)	100.0% (70)
	Subj	0.0% (0)	100.0% (25)	100.0% (25)
	Cond	57.9% (11)	42.1% (8)	100.0% (19)
	Other	48.0% (12)	52.0% (13)	100.0% (25)
	Total	64.9% (320)	35.1% (173)	100.0% (493)

$p = .000$

As can be seen by the frequencies cross-tabulated in Table 4-13b, there is a significant relationship between the constraint of clause type and the future forms employed by the L2-IH group ($p = .000$). I make three key observations: First, L2-IH expressed the majority of future verb forms in the main clause (64.3%). In particular, the LF was the verb form that they employed most frequently in a main clause (89.5%), and these participants also preferred to use the PI in main clauses (76.8%). Second, we find that the L2-IH group showed a clear preference to employ the subjunctive in subjunctive clauses (100.0%), although this result should be taken with caution since the numbers are low. Third, the L2-IH participants did not show clear tendencies regarding clause type

when expressing futurity using the MF. That is, they expressed this verb form in both types of clauses with the same frequency (50.0%). This finding regarding the use of the MF contrasts with the results of the L2-IM speakers, who favored the use of this form in main clauses. The difference found between proficiency levels in this constraint could be because L2-IH learners may have produced more verb forms in subordinate clauses than their L2-IM counterparts (35.7% vs. 20.7%). While I cannot establish a cause, I can only suggest that their higher proficiency level may have allowed them to generate more complex sentence structures.

Next, Table 4-13c presents the results for the L2 advanced group with respect to the clauses in which they expressed futurity.

Table 4-13c. The distribution of expressions of futurity in the interview protocol according to clause type in the L2-ADV group

Group	Expressions of futurity	Clause Type		Total
		Main Clause	Subordinate Clause	
L2-ADV	PF	68.9% (91)	31.1% (41)	100.0% (132)
	LF	83.6% (56)	16.4% (11)	100.0% (67)
	PI	80.0% (40)	20.0% (10)	100.0% (50)
	MF	47.1% (16)	52.9% (18)	100.0% (34)
	Subj	14.6% (6)	85.4% (35)	100.0% (41)
	Cond	56.5% (13)	43.5% (10)	100.0% (23)
	Other	76.3% (45)	23.7% (14)	100.0% (59)
	Total	66.3% (269)	33.7% (137)	100.0% (406)

$p = .000$

Table 4-13c shows that differences also manifest in the manner futurity is expressed by L2-ADV learners according to the constraint of clause type ($p = .000$). A

closer analysis of Table 4-13c reveals similar patterns as those found in the L2-IM and L2-IH groups. That is, when expressing futurity, advanced L2 learners were more likely to employ the majority of the verb forms in main clauses. For example, they used LF and the PI in main clauses with a frequency of 83.6% and 80.0%, respectively. The exceptions to this trend were found when speakers expressed the future using the subjunctive form. In this sense, when they expressed future events using the subjunctive, they tended to use this form in subordinate clauses (85.4%) rather than in main clauses. When L2 learners used the subjunctive to refer to the future in main clauses, it was generally preceded by an epistemic adverb expressing possibility (e.g., *Probablemente vaya a la playa*. ‘I will probably go to the beach.’).

To summarize, and interestingly, all three L2 proficiency groups exhibited similar tendencies with regards to the expression of futurity and its intersection with the type of clause in which the future forms were expressed. Overall, L2 learners exhibited the following tendencies regarding the constraint of clause type and expression of futurity:

- (1) The constraint of clause type significantly influenced the distribution of future verb forms in the three L2 proficiency groups.
- (2) L2 learners were more likely to use the majority of the future forms in the main clause.
- (3) The L2-IH and L2-ADV tend to use the MF in both clause types in equal amounts.
- (4) The subjunctive (used to convey future) was the only verb form that L2 learners favored in subordinate clauses.

Having examined the relationship between clause type and expression of futurity in L2 learners, we now turn our attention to heritage speakers. First, we examine the distribution of future verb forms in the HS-IM group.

Table 4-14a. The distribution of expressions of futurity in the interview protocol according to clause type in the HS-IM group

Group	Expressions of futurity	Clause Type		Total
		Main Clause	Subordinate Clause	
HS-IM	PF	68.3% (28)	31.7% (13)	100.0% (41)
	LF	84.6% (33)	15.4% (6)	100.0% (39)
	PI	64.6% (31)	35.4% (17)	100.0% (48)
	MF	37.5% (3)	62.5% (5)	100.0% (8)
	Subj	33.3% (1)	66.7% (2)	100.0% (3)
	Cond	0.0% (0)	100.0% (2)	100.0% (2)
	Other	74.1% (20)	25.9% (7)	100.0% (27)
	Total	69.0% (116)	31.0% (52)	100.0% (168)

$p = .019$

In looking at Table 4-14a, we note that the distribution of future verb forms in the HS-IM group is statistically significant according to the clause type ($p = .019$). We observe that IM-HS group shows a preference to express futurity in the main clause (69.0%) in their responses to the interview protocol. Specifically, the speakers tend to use the LF (83.8%), “other” verb forms (81.8%), and to a lesser degree the PF (67.5%) and the PI (66.7%) in main clauses. Thus, we do find that the distribution of future verb forms in the HS group is statistically significant according to the clause type. This result contrasts with Gómez Soler and de Prada Pérez (2016), who found that the type of clause

in which the future form was expressed did not condition the use of any of the future verb forms they examined (i.e., PF, MF, and PI).

Next, we examine the data for the HS-IH group with regards to the constraint of clause type.

Table 4-14b. The distribution of expressions of futurity in the interview protocol according to clause type in the HS-IH group

Group	Expressions of futurity	Clause Type		Total
		Main Clause	Subordinate Clause	
HS-IH	PF	66.0% (103)	34.0% (53)	100.0% (156)
	LF	83.9% (78)	16.1% (15)	100.0% (93)
	PI	81.3% (52)	16.1% (15)	100.0% (64)
	MF	46.7% (7)	53.3% (8)	100.0% (15)
	Subj	7.7% (1)	92.3% (12)	100.0% (13)
	Cond	28.6% (4)	74.1% (10)	100.0% (14)
	Other	85.7% (78)	14.3% (13)	100.0% (91)
	Total	72.4% (323)	27.6% (123)	100.0% (446)

$p = .000$

In Table 4-14b we observe that the clause type, meaning, the location of the future form in an utterance, also conditions the future forms employed by HS-IH speakers in the interview protocol ($p = .000$). Several observations can be made regarding this table:

First, like their HS-IM counterparts, HS-IH participants showed a preference to express futurity in the main clause (73.3%). We observe that they favor the use of the LF (83.9%), the PI (81.3%), “other” verb forms (85.7%) and to a lesser degree the PF (66.0%) in main clauses. Second, HS-IH participants employed the MF within close frequencies in both types of clauses (46.7% of instances of the MF appeared in main

clauses, whereas 53.3% appeared in subordinate clauses). They also favored the use of the subjunctive and the conditional in subordinate clauses, although the use of these forms was low at the HS-IH level. This finding is not surprising, since the subjunctive often appears in subordinate clauses.

The next table presents the distribution of future verb forms in the HS-ADV group.

Table 4-14c. The distribution of expressions of futurity in the interview protocol according to clause type in the HS-ADV group

Group	Expressions of futurity	Clause Type		Total
		Main Clause	Subordinate Clause	
HS-ADV	PF	66.2% (188)	33.8% (96)	100.0% (284)
	LF	72.2% (114)	27.8% (44)	100.0% (158)
	PI	84.7% (155)	15.3% (28)	100.0% (183)
	MF	64.6% (31)	35.4% (17)	100.0% (48)
	Subj	26.5% (18)	73.5% (50)	100.0% (68)
	Cond	34.4% (22)	65.6% (42)	100.0% (64)
	Other	85.9% (159)	14.1% (26)	100.0% (185)
	Total	69.4% (687)	30.6% (303)	100.0% (990)

$p = .000$

Table 4-14c reveals that, consistent with the findings in the HS-IM and HS-IH groups, the effect of the constraint of clause type was found to be statistically significant for the HS-ADV group of participants ($p = .000$). Further, we observe two main trends: First, HS-ADV speakers tended to express events in the future using the LF (72.2%), PI (84.7%), “other” verbs (85.9%) and to a lesser extent the PF (66.2%) and the MF (64.6%) in main clauses. Second, the use of the subjunctive and the conditional in future contexts

increased at this level, and HS-ADV favored their use in subordinate clauses with a frequency of 73.5% and 65.6%, respectively.

In sum, the following tendencies were found regarding clause type and expression of futurity by heritage speakers:

- (1) The HS-IM, HS-IH, and HS-ADV participants of the study showed a preference to express futurity in main clauses.
- (2) The HSs favored the use of the MF, subjunctive, and conditional in subordinate clauses, although participants did not employ these verb forms very often in this particular protocol.

Having examined the effects of clause type on future verb production, we continue the analysis of the linguistic constraints by focusing on the semantic type of verb. Recall that this constraint sheds light on whether the meaning of a verb influences the verb forms participants use to express futurity in the interview protocol.

4.2.4. Semantic type of verb

The next linguistic constraint to be examined is semantic type of verb. As discussed in Chapter 2, the lexical meaning of the verb (e.g., motion or stative) used to express futurity has been found to condition the use of PF and MF in the expression of futurity by Spanish monolingual native speakers (Aaron, 2006). Further, studies have found that factors such as semantics and word position constrain linguistic variation in L2 speech (Fasold and Preston, 2007). Therefore, it was important to examine whether the constraint of the semantic type of verb conditioned the choice of verb forms participants employed to express futurity in the interview protocol. As described in Chapter 3, the

constraint of semantic type of verb was coded into four categories, following Aaron (2006) and Kanwit (2014), with slight modifications:

- dynamic non-motion verbs (e.g., *comer, trabajar*),
- motion verbs (e.g., *salir, ir*),
- stative verbs (e.g., *estar, tener*),
- psychological/perceptual verbs (e.g., *creer, ver*).

In the tables that follow, the semantic types of verbs are examined with relation to the verb forms employed to express futurity by the three L2 and HS proficiency groups.

First, we focus on the L2-IM group.

Table 4-15a. The distribution of expressions of futurity in the interview protocol according to semantic type of verb in the L2-IM group

Group	Expressions of futurity	Semantic type of verb				Other
		Dynamic non-motion	Stative	Motion	Psychological / perceptual	
L2-IM	PF	54.4% (43)	27.8% (22)	17.7% (14)	0.0% (0)	100.0% (79)
	LF	57.4% (62)	24.1% (26)	16.7% (18)	1.9% (2)	100.0% (108)
	PI	23.8% (29)	59.8% (73)	13.9% (17)	2.5% (3)	100.0% (122)
	MF	35.0% (14)	40.0% (16)	20.0% (8)	5.0% (2)	100.0% (40)
	Subj	42.9% (3)	57.1% (4)	0.0% (0)	0.0% (0)	100.0% (7)
	Cond	52.0% (13)	40.0% (10)	8.0% (2)	0.0% (0)	100.0% (25)
	Other	70.7% (58)	17.1% (14)	9.8% (8)	2.4% (2)	100.0% (82)
	Total	47.9% (222)	35.6% (165)	14.5% (67)	1.9% (9)	100.0% (463)

$p = .000$

In Table 4-15a we find that there is a statistically significant relationship between the distribution of verb forms in the L2-IM group and the semantic type of the verb ($p =$

.000). For instance, the frequencies in Table 4-15a reveal that 47.9% of the future expressions were expressed in dynamic non-motion verbs. Specifically, L2-IM participants employed these dynamic non-motion verbs (e.g., *estudiar* ‘to study’) in PF (54.4%), LF (57.4%), and “other” verb forms (70.7%). Further, we note that L2-IM learners also expressed futurity with stative verbs (e.g., *ser* or *estar* ‘to be’) (35.6%). They expressed stative verbs using the PI (59.8%), the subjunctive (57.1%), the conditional (40.0%), and the MF (40.0%).

Regarding motion verbs, although these verbs were employed less frequently, we note that participants had a tendency to express them using the PF (17.7%), the LF (16.7%), and the MF (20.0%).

Thus, and up until this juncture, we do find that the constraint of semantic type of verb affects the distribution of future verb forms in the L2-IM group. Next, we focus on the L2-IH group.

Table 4-15b. The distribution of expressions of futurity in the interview protocol according to semantic type of verb in the L2-IH group

Group	Expressions of futurity	Semantic type of verb				Total
		Dynamic non-motion	Stative	Motion	Psychological / perceptual	
L2-IH	PF	48.9% (69)	36.2% (51)	12.8% (18)	2.1% (3)	100.0% (141)
	LF	64.9% (74)	13.2% (15)	19.3% (22)	2.6% (3)	100.0% (114)
	PI	14.1% (14)	66.7% (66)	18.2% (18)	1.0% (1)	100.0% (99)
	MF	40.0% (28)	40.0% (28)	18.6% (13)	1.4% (1)	100.0% (70)
	Subj	44.0% (11)	48.0% (12)	8.0% (2)	0.0% (0)	100.0% (25)
	Cond	26.3% (5)	57.9% (11)	15.8% (3)	0.0% (0)	100.0% (19)
	Other	60.0% (15)	20.0% (5)	20.0% (5)	0.0% (0)	100.0% (25)
	Total	43.8% (216)	38.1% (188)	16.4% (81)	1.6% (8)	100.0% (493)

$p = .000$

Table 4-15b shows that the distribution of future forms that the L2-IH group employed in the interview protocol is different according to the semantic type of verb ($p = .000$). Specifically, we find that the future form that was coupled with dynamic non-motion verbs was the LF (64.9%), followed by “other” verb forms (60.0%). Also, the PF was expressed with dynamic non-motion and stative verbs in 48.9% and 36.2% of the responses respectively.

The PI was expressed mainly with stative verbs (66.7%). And, the MF was preferred in similar frequencies in verbs that denote dynamic non-motion and stative actions (40.0%). Since there are low representations of the subjunctive, conditional, and other categories with regard to the semantic type of verb, I do not comment further. The psychological-perceptual verbs did not yield sufficient tokens to determine any pattern.

Table 4-15c. The distribution of expressions of futurity in the interview protocol according to semantic type of verb in the L2-ADV group

Group	Expressions of futurity	Semantic type of verb				Total
		Dynamic non-motion	Stative	Motion	Psychological / perceptual	
L2-ADV	PF	54.5% (72)	17.4% (23)	25.0% (33)	3.0% (4)	100.0% (132)
	LF	59.7% (40)	14.9% (10)	25.4% (17)	0.0% (0)	100.0% (67)
	PI	14.0% (7)	56.0% (28)	26.0% (13)	4.0% (2)	100.0% (50)
	MF	17.6% (5)	67.6% (18)	5.9% (2)	8.8% (3)	100.0% (34)
	Subj	34.1% (14)	46.3% (19)	19.5% (8)	0.0% (0)	100.0% (41)
	Cond	52.2% (12)	13.0% (3)	13.0% (3)	21.7% (5)	100.0% (23)
	Other	72.9% (43)	5.1% (3)	18.6% (11)	3.4% (2)	100.0% (59)
	Total	47.8% (194)	26.8% (109)	21.4% (87)	3.9% (16)	100.0% (406)

$p = .000$

Consistent with the previous tables, Table 4-15c reveals that the distribution of future verb forms employed by the L2-ADV group differs depending on the semantic type of verb ($p = .000$). We can gather from this table that almost half of the verbs produced by L2-ADV participants conveyed a dynamic non-motion meaning (47.8%). From this semantic category of verbs, we find that 59.7% were expressed using LF, and 54.5% were expressed using the PF. In addition, non-inflected forms, i.e., “other” were expressed using dynamic non-motion verbs.

In general, we can also observe that L2-ADV speakers used fewer stative verbs in the interview protocol. Interestingly, the MF was expressed with a higher frequency (67.6%) than any other for that expressed futurity. Again, similar to the other L2 groups, we also find that psychological-perceptual verbs were not favored by this group.

In sum, L2 learners exhibited the following tendencies regarding semantic type of verb and expression of futurity:

- (1) Expressions of futurity tended to be expressed with dynamic non-motion verbs.
- (2) Futurity expressions were disfavored with psychological-perceptual verbs.
- (3) L2 learners across proficiency levels expressed the PF, LF, and “other” verbs in dynamic non-motion verbs.
- (4) The PI and to a lesser extent the MF were frequently employed when using stative verbs.
- (5) When L2 learners expressed the semantic meaning of motion in future contexts, they tended to use the PF, LF, and PI.

Next, the constraint of semantic type of verb is examined in relation to the verb forms employed to express futurity by the three HS proficiency levels. First, we focus on the HS-IM group.

Table 4-16a. The distribution of expressions of futurity in the interview protocol according to semantic type of verb in the HS-IM group

Group	Expressions of futurity	Semantic type of verb				Total
		Dynamic non-motion	Stative	Motion	Psychological / perceptual	
HS-IM	PF	61.0% (25)	19.5% (8)	14.6% (6)	4.9% (2)	100.0% (41)
	LF	61.5% (24)	12.8% (5)	23.1% (9)	2.6% (1)	100.0% (39)
	PI	20.8% (10)	62.5% (30)	10.4% (5)	6.3% (3)	100.0% (48)
	MF	0.0% (0)	50.0% (4)	50.0% (4)	0.0% (0)	100.0% (8)
	Subj	0.0% (0)	100.0% (3)	0.0% (0)	0.0% (0)	100.0% (3)
	Cond	0.0% (0)	100.0% (2)	0.0% (0)	0.0% (0)	100.0% (2)
	Other	70.4% (19)	14.8% (4)	11.1% (3)	3.7% (1)	100.0% (27)
	Total	46.4% (78)	33.3% (56)	16.1% (27)	4.2% (7)	100.0% (168)

$p = .000$

In Table 4-16a we note that there is a relationship between the constraint of semantic type of verb and the future forms employed by HS-IM speakers in the corpus generated by the interview protocol ($p = .000$). Specifically, we find that HS-IM speakers expressed dynamic non-motion verbs, the most frequent type of verbs in the corpus, using the PF (61.0%), the LF (61.5%) and “other” (e.g., non-inflected forms), (70.4%). This group also shows a tendency to use the PI with stative verbs (62.5%), the second most commonly produced verb. Finally, we also find that in general future forms were not expressed or were disfavored in psychological-perceptual verbs, a pattern that was also apparent in the L2 groups.

Next, we analyze the data for the HS-IH group.

Table 4-16b. The distribution of expressions of futurity in the interview protocol according to semantic type of verb in the HS-IH group

Group	Expressions of futurity	Semantic type of verb				Total
		Dynamic non-motion	Stative	Motion	Psychological / perceptual	
HS-IH	PF	51.9% (81)	32.7% (51)	14.1% (22)	1.3% (2)	100.0% (156)
	LF	45.2% (42)	19.4% (18)	30.1% (28)	5.4% (5)	100.0% (93)
	PI	15.6% (10)	54.7% (35)	28.1% (18)	1.6% (1)	100.0% (64)
	MF	26.7% (4)	53.3% (8)	13.3% (2)	6.7% (1)	100.0% (15)
	Subj	23.1% (3)	53.8% (7)	15.4% (2)	7.7% (1)	100.0% (13)
	Cond	14.3% (2)	64.3% (9)	14.3% (2)	7.1% (1)	100.0% (14)
	Other	60.4% (55)	16.5% (15)	17.6% (16)	5.5% (5)	100.0% (91)
	Total	44.2% (197)	32.1% (143)	20.0% (90)	3.6% (16)	100.0% (446)

$p = .000$

Similar to previous tables concerning the use of future form expressions and the semantic type of a verb, Table 4-16b reveals that the semantic type of verb also influences the verb forms employed to express futurity in the HS-IH group ($p = .000$). Further, we find similarities regarding the constraint semantic type of verb in the HS-IM and the HS-IH groups. For example, HS-IH speakers frequently expressed dynamic non-motion verbs using the PF (51.9%), LF (45.2%) and “other” (e.g., non-inflected) verbs (60.4%). The PI was preferred in stative-related verbs (54.7%), similar to the MF, the subjunctive and the conditional. Like in the L2 groups, this table also shows that there is a low distribution of tokens in the semantic category of psychological-perceptual verbs.

We should note that the use of the following future-related expressions, MF, subjunctive, and conditional (although not represented with a high number of tokens) tend to be coupled with stative verbs.

Next, we examine the data for the HS-ADV group.

Table 4-16c. The distribution of expressions of futurity in the interview protocol according to semantic type of verb in the HS-ADV group

Group	Expressions of futurity	Semantic type of verb				Total
		Dynamic non-motion	Stative	Motion	Psychological / perceptual	
HS-ADV	PF	40.5% (115)	34.9% (99)	21.8% (62)	2.8% (8)	100.0% (284)
	LF	53.2% (84)	15.8% (25)	29.1% (46)	1.9% (3)	100.0% (158)
	PI	29.0% (53)	47.0% (86)	19.1% (35)	4.9% (9)	100.0% (183)
	MF	33.3% (16)	52.1% (25)	12.5% (6)	2.1% (1)	100.0% (48)
	Subj	32.4% (22)	55.9% (38)	10.3% (7)	1.5% (1)	100.0% (68)
	Cond	21.9% (14)	40.6% (26)	21.9% (14)	15.6% (10)	100.0% (64)
	Other	64.9% (120)	17.8% (33)	14.1% (28)	3.2% (6)	100.0% (185)
	Total	42.8% (424)	33.5% (332)	19.8% (196)	3.8% (38)	100.0% (990)

$p = .000$

In Table 4-16c, we observe that the trends in the HS-ADV group regarding future verb forms and the semantic category of a verb were very similar to those found in the HS-IM and HS-IH groups. For instance, in the corpus generated by the HS-ADV group, speakers expressed dynamic non-motion verbs using the PF (40.5%), the LF (53.2%) and “other” (e.g., non-inflected) verbs (64.9%). Interestingly, the HS-ADV expressed the PI (47.0%), the MF (52.1%), and the subjunctive (55.9%) in stative verbs. That is, in the category of stative verbs, we find a more robust representation of tokens in these latter

future forms. Also, regarding motion verbs, the LF was the verb form that most frequently expressed motion verbs (29.1%). Finally, future forms were also not favored with psychological-perceptual verbs, similar to the L2 and other HS groups.

In sum, the HS of the study exhibited the following tendencies regarding the expression of futurity and semantic type of verb:

- (1) Expressions of futurity had a tendency to be expressed with dynamic non-motion verbs and to a lesser extent, stative and motion verbs.
- (2) Future form production was sparingly coupled with psychological-perceptual verbs.
- (3) Overall HSs across proficiency levels expressed the PF, LF, and “other” verbs in dynamic non-motion verbs.
- (4) The PI and the MF were frequently employed when expressing stative verbs.
- (5) The LF tended to be expressed in motion-related verbs.

To recapitulate, the semantic type of verb seems to have mediated the future verb forms employed by the L2 and HS participants. In general, the data revealed robust patterns with respect to the future verb and the dynamic non-motion and psychological-perceptual semantic categories of verbs. Overall, L2 learners and HSs showed largely similar rates of production of verb forms for the different semantic types of verbs.

The next section examines the linguistic constraint of markers of certainty.

4.2.5. Markers of certainty

The last linguistic constraint of the study examines markers of certainty. As discussed in Chapter 2, certainty belongs to the realm of epistemic modality and refers to

speakers' attitude or assessment toward the probability or possibility of an event happening (Sedano, 1994). Recall that studies on monolingual NSs of Spanish have found a relationship between certainty and expression of futurity (Aaron, 2014; Díaz-Peralta and Almeida, 2000; Sedano, 1994). For example, Sedano (1994) found that native Spanish speakers tended to favor the MF in contexts referring to doubt and uncertainty. In contrast, the PF was preferred in contexts expressing certainty. Thus, this constraint shed light on whether there was a relationship between markers of certainty and L2 learners' and HSs' expression of futurity. Markers of certainty were coded into five categories:

- no marker,
- high certainty marker (e.g., *seguro que*),
- mid certainty marker (e.g., *creo que*),
- low certainty marker (e.g., *tal vez*), and
- *si* 'if' clause.

Table 4-17a presents the distribution of future verb forms according to markers of certainty in the L2-IM corpus.

Table 4-17a. The distribution of expressions of futurity in the interview protocol according to markers of certainty in the L2-IM group

Group	Expressions of futurity	Markers of certainty					Total
		No marker	High certainty	Mid certainty	Low certainty	<i>Si</i> 'if' clause	
L2-IM	PF	60.8% (48)	3.8% (3)	16.5% (13)	17.7% (14)	1.3% (1)	100.0% (79)
	LF	84.3% (91)	1.9% (2)	3.7% (4)	7.4% (8)	2.8% (3)	100.0% (108)
	PI	81.1% (99)	4.9% (6)	3.3% (4)	9.8% (12)	0.8% (1)	100.0% (122)
	MF	65.0% (26)	5.0% (2)	5.0% (2)	25.0% (10)	0.0% (0)	100.0% (40)
	Subj	14.3% (1)	14.3% (1)	14.3% (1)	57.1% (4)	0.0% (0)	100.0% (7)
	Cond	76.0% (19)	4.0% (1)	12.0% (3)	8.0% (2)	0.0% (0)	100.0% (25)
	Other	56.1% (46)	8.5% (7)	3.7% (3)	28.0% (23)	3.7% (3)	100.0% (82)
	Total	71.3% (330)	4.8% (22)	6.5% (30)	15.8% (73)	1.7% (8)	100.0% (463)

$p = .000$

Table 4-17a reveals that the distribution of future verb forms in the L2-IM group according to the constraint of markers of certainty is statistically significant ($p = .000$). Before taking a closer look at the data, it is important to note that over two thirds (71.3%) of the tokens produced by L2-IM learners did not include a marker of certainty.

Interestingly, the LF was the verb form that most frequently appeared without certainty markers (84.3%). I hypothesize that the absence of markers in the LF may be due to the fact that verbs such as *querer* 'to want' or *tener que* 'to have to' (which were common when using the LF), inherently contain a semantic feature of obligation or volition that implies futurity. Therefore, perhaps to avoid redundancy, markers were not pervasively produced. The metalinguistic awareness questionnaire (Chapter 5) will further assist to shed more light on this matter.

While we note that the future forms did not tend to be expressed with any certainty marker, we still can make several observations. First, the L2-IM did not strongly favor the use of the marker *Si* ‘if’ clause with any future form (1.7%). Second, low certainty markers were expressed in all future forms (15.8%). However, the L2-IM preferred to express the PF, MF, and subjunctive in cases of low certainty (17.7%, 25.0%, and 57.1%, respectively). Third, instances of mid certainty tended to be expressed with the PF (16.5%).

Next, we examine the data for the L2-IH group.

Table 4-17b. The distribution of expressions of futurity in the interview protocol according to markers of certainty in the L2-IH group

Group	Expressions of futurity	Markers of certainty					Total
		No marker	High certainty	Mid certainty	Low certainty	<i>Si</i> ‘if’ clause	
L2-IH	PF	45.4% (64)	14.2% (20)	32.6% (46)	5.7% (8)	2.1% (3)	100.0% (141)
	LF	89.5% (102)	0.0% (0)	3.5% (4)	4.4% (5)	2.6% (3)	100.0% (114)
	PI	77.8% (77)	2.0% (2)	6.1% (6)	12.1% (12)	2.0% (2)	100.0% (99)
	MF	50.0% (35)	7.1% (5)	28.6% (20)	14.3% (10)	0.0% (0)	100.0% (70)
	Subj	24.0% (6)	0.0% (0)	16.0% (4)	60.0% (15)	0.0% (0)	100.0% (25)
	Cond	57.9% (11)	0.0% (0)	26.3% (5)	5.3% (1)	10.5% (2)	100.0% (19)
	Other	56.0% (14)	4.0% (1)	20.4% (6)	12.0% (3)	4.0% (1)	100.0% (25)
	Total	62.7% (309)	5.7% (28)	18.5% (91)	11.0% (54)	2.2% (11)	100.0% (493)

$p = .000$

Table 4-17b also reveals a significant relationship between the constraint of markers of certainty and the production of future verb forms by the L2-IH group. Similar to the patterns uncovered in the speech of the L2-IM, we also find that almost two thirds (62.7%) of the tokens produced by L2-IH learners did not include a marker of certainty.

However, this group exhibits more mid certainty markers. The L2-IH group frequently expressed mid certainty markers with PF verbs (32.6%). At this level, we also find that the subjunctive was preferred in instances of low certainty (60.0%). However, high certainty markers were not found pervasively used in the protocol of the interviews (only 5.7% of the 493 tokens). Furthermore, and similar to the L2-IM group, the L2-IH group also disfavored the use of *Si* ‘if’ clauses when expressing futurity.

Next, Table 4-17c addressed the advanced L2 group’s use of certainty markers.

Table 4-17c. The distribution of expressions of futurity in the interview protocol according to markers of certainty in the L2-ADV group

Group	Expressions of futurity	Markers of certainty					Total
		No marker	High certainty	Mid certainty	Low certainty	<i>Si</i> ‘if’ clause	
L2-ADV	PF	64.4% (85)	12.9% (17)	13.6% (18)	6.8% (9)	2.3% (3)	100.0% (132)
	LF	76.1% (51)	4.5% (3)	10.4% (7)	6.0% (4)	3.0% (2)	100.0% (67)
	PI	72.0% (36)	2.0% (1)	20.0% (10)	6.0% (3)	0.0% (0)	100.0% (50)
	MF	35.3% (12)	0.0% (0)	50.0% (17)	8.8% (3)	5.9% (2)	100.0% (34)
	Subj	14.6% (6)	12.8% (5)	28.2% (12)	41.0% (17)	2.6% (1)	100.0% (41)
	Cond	78.3% (18)	4.3% (1)	8.7% (2)	8.7% (2)	0.0% (0)	100.0% (23)
	Other	64.4% (38)	1.7% (1)	13.6% (8)	18.6% (11)	1.7% (1)	100.0% (59)
	Total	60.6% (246)	6.9% (28)	18.2% (74)	12.1% (49)	2.2% (9)	100.0% (406)

$p = .000$

Consistent with the findings in the L2-IM and L2-IH groups, in Table 4-17c we observe that certainty also influences future time expression in the L2-ADV group ($p = .000$). First, we find that the majority of the tokens in the L2-ADV corpus did not include

a marker of certainty (60.6%). Interestingly, this rate was slightly lower than in the lower L2 proficiency levels.

Although the majority of the tokens in the L2-ADV group did not include a marker of certainty, we find that each type of marker was produced more frequently with specific future verb forms. For instance, mid certainty markers, the most frequent markers in this group, tended to co-occur with the MF (50.0%). This tendency aligns with Kanwit (2014), who found that high proficiency learners (and NSs) frequently used the MF with *supongo/ imagino* ‘I suppose/ I imagine’ (equivalent to “mid certainty” markers in this study).

Low certainty markers also tended to co-occur with the subjunctive at this level (41.0%). The use of high certainty markers was relatively reduced (6.9%) in the L2-ADV group, and high certainty markers were produced almost exclusively coupled with the PF (12.9%) and the subjunctive (12.8%), although in the latter, tokens were low.

In sum, the L2 learners of this study exhibited the following tendencies with regards to markers of certainty:

- (1) L2 learners across proficiency levels tended not to employ markers of certainty in the majority of tokens they produced expressing futurity in the interview protocol.
- (2) The L2-ADV group tended to use markers of certainty more than the L2-IM group. Thus, the proficiency level of L2 participants seems to condition the amount of certainty markers they employ when discussing future events.
- (3) When L2 learners employed markers of certainty, each type of marker was used with specific verb forms.

Having analyzed the constraint of markers of certainty in the L2 group, we now focus on the HS group. Table 4-18a presents the distribution of future verb forms according to markers of certainty in the HS-IM group.

Table 4-18a. The distribution of expressions of futurity in the interview protocol according to markers of certainty in the HS-IM group

Group	Expressions of futurity	Markers of certainty					Total
		No marker	High certainty	Mid certainty	Low certainty	<i>Si</i> 'if' clause	
HS-IM	PF	73.2% (30)	2.4% (1)	9.8% (4)	12.2% (5)	2.4% (1)	100.0% (41)
	LF	84.6% (33)	0.0% (0)	7.7% (3)	2.6% (1)	5.1% (2)	100.0% (39)
	PI	62.5% (30)	0.0% (0)	12.5% (6)	25.0% (12)	0.0% (0)	100.0% (48)
	MF	50.0% (4)	12.5% (1)	25.0% (2)	12.5% (1)	0.0% (0)	100.0% (8)
	Subj	0.0% (0)	33.3% (1)	33.3% (1)	33.3% (1)	0.0% (0)	0.0% (3)
	Cond	0.0% (0)	0.0% (0)	50% (1)	50% (1)	0.0% (0)	100.0% (2)
	Other	74.1% (20)	14.8% (4)	7.4% (2)	3.7% (1)	0.0% (0)	100.0% (27)
	Total	69.6% (117)	4.2% (7)	11.3% (19)	13.1% (22)	1.8% (3)	100.0% (168)

$p = .002$

As we see in the frequencies cross-tabulated in Table 4-18a, there is a significant relationship between the constraint of markers of certainty and the future forms that the HS-IM group employed in the interview. Before further analyzing the data, it is important to note that over two thirds (69.6%) of the tokens produced by HS-IM were not accompanied by a marker of certainty. This result was also found in the L2 groups.

When HS-IM employed certainty markers, they produced low and mid certainty markers, although the number of instances was low. The production of high certainty markers and *si* 'if' markers was also minimal at this level. Note that the literature (e.g.,

Aaron, 2014; Blas Arroyo, 2008; Gudmestad and Geeslin, 2011; Lastra and Butragueño, 2010; Sedano, 1994) on the expression of futurity in monolingual Spanish speakers revealed that there appears to be a relationship between the use of the PF and expressions of certainty. The literature also suggests a relationship between uncertainty and the use of the MF (e.g., Díaz-Peralta and Almeida, 2000; Sedano, 1994). However, the data in Table 4-18a does not confirm these previous findings. Hence, the HS-IM speakers of the study do not seem to approximate monolingual speakers in this respect.

The next table presents the data for the HS-IH group.

Table 4-18b. The distribution of expressions of futurity in the interview protocol according to markers of certainty in the HS-IH group

Group	Expressions of futurity	Markers of certainty					Total
		No marker	High certainty	Mid certainty	Low certainty	Si 'if' clause	
HS-IH	PF	59.6% (93)	9.0% (14)	13.5% (21)	16.0% (25)	1.9% (3)	100.0% (156)
	LF	63.4% (59)	9.7% (9)	6.5% (6)	20.4% (19)	0.0% (0)	100.0% (93)
	PI	71.9% (46)	1.6% (1)	4.7% (3)	21.9% (14)	0.0% (0)	100.0% (64)
	MF	53.3% (8)	0.0% (0)	40.0% (6)	6.7% (1)	0.0% (0)	100.0% (15)
	Subj	23.1% (3)	0.0% (0)	0.0% (0)	76.9% (10)	0.0% (0)	100.0% (13)
	Cond	42.9% (6)	0.0% (0)	21.4% (3)	28.6% (4)	7.1% (1)	100.0% (14)
	Other	63.7% (58)	4.4% (4)	6.6% (6)	23.1% (21)	2.2% (3)	100.0% (91)
	Total	61.2% (273)	6.3% (28)	10.1% (45)	21.1% (94)	1.3% (6)	100.0% (446)

$p = .000$

In Table 4-18b we also find a statistically significant relationship between the use of future forms and the constraint of markers of certainty. Similar to previous tables, Table 4-18b reveals that almost two thirds (61.2%) of the tokens produced by HS-IH

learners did not include a marker of certainty. Surprisingly, the HS-IH group frequently produced the PI to express futurity without certainty markers (71.9%), a verb form whose morphology does not signal future tense.

When HS-IH speakers employed certainty markers, they mildly favored the use of low certainty markers (21.1%), and to a lesser degree, in mid certainty markers (10.1%). The preference to employ low certainty markers may be due to their linguistic ability to convey certitude with different strategies that this study did not examine. In other words, it is possible that speakers expressed certainty without issuing a marker, but may have used other strategies such as a pause, discourse markers, the modality of the verb, etc., to convey certainty, linguistic features that did not fall in the scope of this current study.

The HS-IH participants tended to express the subjunctive with low certainty markers (76.9%) although here again, the tokens are few. This tendency was expected since the subjunctive expresses modality. HS-IH speakers also favored the MF (40.0%) and the conditional (21.4%) when they employed mid certainty markers. The HS-IH group produced the PF (9.0%) and the LF (9.7%) with high certainty markers, although we did not attest to many tokens in this category of markers either.

Table 4-18c. The distribution of expressions of futurity in the interview protocol according to markers of certainty in the HS-ADV group

Group	Expressions of futurity	Markers of certainty					Total
		No marker	High certainty	Mid certainty	Low certainty	<i>Si</i> 'if' clause	
HS-ADV	PF	61.3% (174)	2.1% (6)	20.1% (57)	14.4% (41)	2.1% (6)	100.0% (284)
	LF	70.3% (111)	2.5% (4)	10.8% (17)	15.2% (24)	1.3% (2)	100.0% (158)
	PI	78.7% (114)	1.6% (3)	4.4% (8)	10.4% (19)	4.9% (9)	100.0% (183)
	MF	52.1% (25)	2.1% (1)	18.8% (9)	20.8% (10)	6.3% (3)	100.0% (48)
	Subj	19.1% (13)	1.5% (1)	5.9% (4)	72.1% (49)	1.5% (1)	100.0% (68)
	Cond	43.8% (28)	0.0% (0)	9.4% (6)	42.2% (27)	4.7% (3)	100.0% (64)
	Other	77.3% (143)	2.7% (5)	3.8% (7)	15.7% (29)	0.5% (1)	100.0% (185)
	Total	64.4% (638)	2.0% (20)	10.9% (108)	20.1% (199)	2.5% (25)	100.0% (990)

$p. = .000$

In Table 4-18c we note that about two thirds (64.4%) of the tokens produced by HS-ADV speakers were not accompanied by a marker of certainty. For instance, the PI was very frequently produced without certainty markers at this proficiency level (78.7%).

Regarding the rate of production of each type of marker and their connection to future verb forms, we find that, like in the HS-IH group, low certainty markers were the most pervasive markers used by the HS-ADV group (20.1%). Table 4-18c reveals that this group tended to produce low certainty markers in utterances in which the subjunctive was used to express futurity (72.1%). We also find that mid certainty markers (10.9%) frequently co-occurred with the PF (20.1%) and MF (18.8%).

Overall, the findings regarding HSs and markers of certainty are similar to the results in Gómez Soler and de Prada Pérez (2016). In their HS corpus, Gómez Soler and

de Prada Pérez found that the use of the MF was favored with low certainty markers, the use of the PF was favored with mid certainty markers, and the use of the PI was favored with low and mid certainty markers.

In sum, the HSs of the current study exhibited the following tendencies regarding markers of certainty and expressions of futurity in their responses to the interview protocol:

- (1) They showed a preference to express futurity without adding markers of certainty to their utterances.
- (2) When markers of certainty were employed, each type of marker favored different future verb forms (although the distributions varied across proficiency levels and, in some instances, did not match monolingual speakers.)
- (3) When HSs employed certainty markers, they often employed low certainty markers.

This section has shown that L2 learners and HSs only use markers of certainty in around a third of their expressions of futurity. Notably, when they include these markers in their discourse, they favor mid- and low-certainty markers. Specifically, HSs employed more low-certainty markers than L2 learners in the interview protocol. It is reasonable to conclude that speakers do not employ markers but other discoursal or prosodic devices to convey high certainty.

Having analyzed the distribution of future forms according to the linguistic constraints of the study, I now proceed to perform a complementary analysis using multinomial logistic regressions.

4.2.6. Multinomial logistic regression of the linguistic constraints

To further examine the data and to provide more insight into RQ1 and RQ2, I performed a multinomial logistic regression for each participant group. In this study, multinomial logistic regressions will predict the probabilities of use of the different verb forms employed to express futurity (dependent variable), given the set of linguistic constraints examined (independent variables). In other words, this statistical test will be used to determine which constraints predict verb form use at each proficiency level, as well as the statistical weight of the predictions. Predictors of use will be compared across proficiency levels in both the L2 and HS groups.

In the logistic regression analysis of this study, the dependent variable only includes the most frequent forms in the corpus (i.e., PF, LF, PI, and MF). The predictors included in the model are the categorical linguistic constraints that yielded significant results in the cross-tabulations (i.e., temporal distance, temporal adverbials, clause type, semantic type of verb, and markers of certainty).

In the three L2 proficiency groups, the model that included the independent linguistic constraints outperformed the null model for all three proficiency levels, with overall improved frequencies for verb forms at each proficiency level. The model passed the goodness-of-fit test ($p > 0.05$), which suggests that the model adequately fits the data. The pseudo R-square also increased considerably, explaining about 57% of the variance. Table 4-19 presents the results of the likelihood ratio test, which shows the contribution of each variable to the model. That is, Table 4-19 includes an overview of which variables were selected as significant within each group's model for the L2 learners.

Detailed information regarding each regression can be found in Appendix G.

Table 4-19. Summary of the results of the multinomial logistic regressions of the linguistic constraints coded in the interview protocol: L2 learners

Group	Linguistic constraints				
	Temporal distance	Temporal adverbials	Clause type	Semantic type of verb	Markers of certainty
L2-IM	***X	*X	***X	***X	
L2-IH	***X		*X	***X	***X
L2-ADV	***X		*X	***X	*X

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In Table 4-19 we observe that the constraints of temporal distance, clause type, and semantic type of verb were significant predictors in the model for the three L2 proficiency groups. We also find differences between proficiency groups in Table 4-19. For instance, the L2-IM group was the only group in which the constraint regarding temporal adverbials was a significant predictor. In contrast, in the L2-IH and L2-ADV groups the constraint of markers of certainty predicted verb form use in future contexts. The only difference between the L2-IH and L2-ADV groups was the degree of significance of the predictor regarding markers of certainty.

Next, we look at the HS data. In the HS groups, the model with the independent linguistic constraints also outperformed the null model, with overall improved frequencies for verb forms at each proficiency level. The models passed the goodness-of-fit test ($p > 0.05$). The pseudo R-square also increased, explaining about 38% of the variance. The likelihood ratio test shows the contribution of each variable to the model and the results are reported in Table 4-20 below. Table 4-20 presents an overview of which variables were selected as significant within each group's model for the HSs. Detailed information regarding each regression can be found in Appendix G.

Table 4-20. Summary of the results of the multinomial logistic regressions of the linguistic constraints coded in the interview protocol: Heritage speakers

Group	Linguistic constraints				
	Temporal distance	Temporal adverbials	Clause type	Semantic type of verb	Markers of certainty
HS-IM	*X			***X	
HS-IH	***X	**X	*X	***X	
HS-ADV	***X		*X	***X	*X

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4-20 shows that more linguistic predictors were added to the HS groups' models in the higher proficiency levels. We observe that only two constraints were significant predictors in the model in the HS-IM group. However, we see that four constraints were significant predictors in the HS-IH and HS-ADV groups.

A closer look at Table 4-20 reveals that temporal distance and semantic type of verb were significant predictors for the three HS proficiency groups. In addition, the constraints regarding temporal adverbials and clause type were also contributors in the HS-IH model, and the model for the HS-ADV group included clause type and markers of certainty as predictors of the verb forms participants used to express futurity in the interview protocol.

Several observations can be made after comparing the results of the multinomial logistic regression models in Tables 4-19 and 4-20. First, overall, more constraints were significant predictors in the models for the L2 learners. Therefore, the models for the L2 learners explain a higher percentage of the variance than the models for the heritage speaker group. Second, temporal distance and semantic type of verb seemed to be the predictors that uniformly contributed to the models for all groups. Finally, we find developmental patterns regarding several linguistic constraints. For instance, the constraint regarding markers of certainty was not a significant predictor in the L2-IM and

HS-IM groups (the lowest proficiency groups), which can be taken to suggest that this constraint is acquired later.

The multinomial logistic regressions also revealed the directions of effect of the predictors. That is, they revealed which category or categories in an independent variable predicted the use of a specific verb form for the L2 learners and HSs. The most salient finding is that the odds of using the PI over the rest of the verbs (i.e., PF, LF, MF) are higher in contexts of near and medium distance in both the L2 and the HS groups. That is, there is a correlation between immediate and medium temporal distance and the use of the PI. The regressions also revealed that the odds of using the PF by L2ers and HSs are higher when the verb is of the category dynamic non-motion (e.g., *comer* ‘to eat’). Verbs of movement also correlate with the use of the PF in the HSs group (but not in the L2 group).

Overall, the findings from the logistic regressions align with the results from the Chi-Square tests presented earlier in the chapter. However, it is important to take into account that not all significant results in the Chi-Square tests were significant in the regressions. The reason is that these two statistical tests have different goals. Chi-Square tests establish whether there is a relationship between the distribution of the data and an independent variable. Logistic regressions, on the other hand, are predictive analyses that establish whether there is a correlation between two or more variables. For instance, recall that Chi-Square tests revealed a significant relationship between the use of future verb forms and the quantity of temporal adverbials that L2 and HS participants used. In contrast, the logistic regressions predicted that in utterances with one temporal marker, the odds of using the PI were higher than using the PF or the LF in the HS group, but the

odds were not significantly different for the MF or for any comparison in the L2 group.

Next, the findings regarding the linguistic constraints of the study are summarized.

4.2.7. Summary of key findings: Linguistic constraints

This section has presented the results of the quantitative analysis of linguistic constraints that condition the expression of futurity in the corpus obtained from the interview protocol. In sum, the quantitative analysis suggested that the constraints of temporal distance, temporal adverbials, clause type, semantic type of verb, and markers of certainty seem to mediate the verb forms employed to express futurity by L2 learners and HSs of Spanish. Key findings regarding linguistic constraints can be summarized as the following:

1. Expressions of futurity were conditioned by the temporal distance they were referring to, especially in the L2 group. There were similarities and differences between L2 learners and HSs. Concerning similarities, in both groups, participants used the PF to express futurity with multiple temporal distances. Both groups also employed the LF to refer to events in the near future. The MF, subjunctive, and conditional were preferred in contexts regarding the distant future. In contrast, while the PI was more frequently employed to refer to the near future in the L2 group, HSs employed the PI to refer to every category of temporal distance.

2. The majority of the tokens expressing futurity did not contain temporal adverbials. L2 learners produced more temporal markers than their HS counterparts. Further, the PI was the verb form that was most frequently accompanied by temporal markers in both groups.

3. The great majority of tokens that included temporal markers contained one single marker located before the verb. Both L2 and HS groups disfavored the use of two or more markers to denote time.

4. The expressions of futurity were favored in the main clause, not the subordinate clause. That is, the two groups preferred to syntactically place their marker of futurity in the head clause of their responses.

5. Expressions of futurity were conditioned by the semantic type of verb. In this corpus, both groups exhibited a tendency to couple expressions of futurity with dynamic non-motion verbs.

6. Learners and heritage speakers favored utterances expressing futurity without markers of certainty. And, the expression of futurity was not conditioned by *Si* ‘if’ clauses, which denote uncertainty.

The previous sections have addressed the first part of RQ2 by analyzing the effect of linguistic constraints on the expression of futurity in L2 learners and HSs. The extensive discussion of these findings in the context of the previous research is provided in Chapter 7. To further explore the expression of futurity by L2 learners and HSs, the next section will present the analysis regarding the external constraints.

4.3. Analysis of the external constraints and expressions of futurity

This section presents the analysis of the verb forms employed to express futurity in the corpus generated by the interview protocol (Appendix A), with a focus on the external constraints (e.g., exposure to Spanish dialect, gender). The goal of this section is to address the second part of research question two, which inquired about the external

constraints that condition the verb forms employed to express futurity by L2 learners and heritage speakers. As detailed in Chapter 3, this study examined the following acquisitional and social constraints: exposure to Spanish dialect, formal education in Spanish, gender, and age. Data from these constraints were obtained from the language background questionnaire that all speakers completed as part of their participation in this study. The questionnaire inquired about participants' exposure to Spanish, experience in Spanish-speaking countries, and number of years of education in Spanish, among other topics. The entire language background questionnaire can be found in Appendix D.

The subsections that follow examine whether the aforementioned external constraints condition the frequency and the range of verb forms participants employed to express futurity in the interview protocol. I will begin by analyzing the data for each constraint with regards to L2 learners, followed by the data from the HSs, and I will then compare the findings from both groups and summarize the results. However, unlike the previous sections, this section will not consider language proficiency. That is, the three L2 proficiency groups will be collapsed into a single L2 group, and likewise, the three HS proficiency groups will be collapsed into a single HS group. Thus, amalgamating the proficiency groups allows me to better describe how the external constraints affect each group as a whole.

4.3.1. Exposure to Spanish dialect

The first external constraint to be examined is exposure to Spanish dialect. As discussed in the review of the literature in Chapter 2, future time expression has been found to differ across regions of the Spanish-speaking world. For instance, the MF seems

to be employed more frequently in Spain than in countries in Latin America (Sedano, 1994). Thus, this constraint determined whether exposure to a specific Spanish dialect influences the choice of verb forms participants employed to express futurity in the interview protocol. Remember that five regional dialects were coded in this study:

- Mexico and Central America,
- Caribbean,
- South America,
- Spain, and
- US Spanish.

The data regarding exposure to Spanish dialect were obtained from the language background questionnaire. All participants in the L2 group reported that they had been exposed to the US Spanish dialect. Therefore, L2 data will not be analyzed for this constraint. Regarding heritage speakers, the answers to the questionnaire reflected the varied Hispanic population of the area. Out of the 40 HSs that participated in the study, ten had been exposed to the dialect in Mexico and Central America, thirteen to the dialect in the Caribbean, fifteen to the dialect in South America, and two to the dialect in Spain. Table 4-21 presents the distribution of future verb forms according to dialect exposure in the HS group.

Table 4-21. The distribution of expressions of futurity in the interview protocol according to exposure to Spanish dialect in the HS group

Exposure to dialect	Expressions of futurity							Total
	PF	LF	PI	MF	Subj.	Cond.	Other	
Mexico and Central America	29.1% (136)	17.3% (81)	16.5% (77)	1.1% (5)	6.4% (30)	5.8% (27)	23.9% (112)	100.0% (468)
Caribbean	33.9% (148)	20.9% (91)	21.8% (95)	4.1% (18)	3.9% (17)	2.9% (12)	12.6% (55)	100.0% (436)
South America	28.3% (174)	18.7% (109)	20.0% (123)	4.6% (28)	5.4% (33)	4.6% (28)	5.2% (32)	100.0% (615)
Spain	27.1% (23)	8.2% (7)	10.6% (9)	18.8% (16)	10.6% (9)	7.1% (6)	17.6% (15)	100.0% (85)
Total	30.0% (481)	18.1% (290)	18.4% (295)	4.4% (71)	5.2% (84)	5.0% (80)	18.9% (303)	100.0% (1604)

$p = .000$

Table 4-21 reveals that the distribution of verb forms employed by HSs in the interview protocol is significantly different depending on the Spanish dialect that HSs had been exposed to, $\chi^2 (18, N = 1604) = 98.856, p = .000$. At first glance, we find that the PF was preferred among speakers of all dialects when discussing future events. Overall, HSs employed the PF to express futurity with a frequency of 30.0%. This finding is in line with previous studies that found that most dialects of Spanish favor the use of the PF in future time contexts (e.g., Claes and Ortiz López, 2011; Gutiérrez, 1995; Jaque, 2017; Orozco, 2005, 2007; Sedano, 1994).

Following the PF (the preferred form), we find that speakers of all dialects except Peninsular Spanish favored the LF and the PI. In contrast, speakers exposed to the dialect in Spain produced a higher frequency of MF, subjunctive and conditional than their counterparts who were exposed to the dialects in Mexico and Central America, the Caribbean, and South America. It is important to note that only two HS participants were exposed to the dialect in Spain and they produced 5.4% of the totality of the HS tokens. Therefore, it is possible that these results are subject to a Type I error (false positive).

Finally, heritage speakers of all dialects also used “other” verb forms (e.g., non-inflected verbs, present progressive, imperfect) to express futurity.

In summary, the results suggest that exposure to a specific dialect of Spanish conditions the expressions of futurity among HSs employed. While speakers of all four dialects preferred to use of the PF to express futurity, the results point to a similar pattern among the participants exposed to dialects in Mexico and Central America, the Caribbean, and South America. They also favored the LF and the PI to express futurity but not in as high frequencies as the PF.

Having analyzed the effects of exposure to Spanish dialect in the HS group, I now turn to examine the external constraint regarding formal education in Spanish.

4.3.2. Formal education in Spanish

The next external constraint to be examined is formal education in Spanish. This constraint aimed to shed light on whether the number of years of formal education in Spanish participants had received had an effect on the verb forms they employed to express futurity. This study coded for four values:

- no formal education in Spanish,
- less than five years of formal education in Spanish,
- between five and nine years of formal education in Spanish, and
- ten or more years of formal education in Spanish.

First, we look at the data from the L2 group. The language background questionnaire revealed that one participant had less than five years of formal education in Spanish, 19 participants had between five and nine years, and 28 learners had ten or more

years of formal education in Spanish. The next table presents the distribution of future verb forms in the L2 group according to the number of years of formal education in Spanish. Since only one L2 participant had received less than five years of education in Spanish, the analysis will focus on the possible differences between those with five to nine years of education in Spanish, and those with ten or more years of educational experience in Spanish.

Table 4-22. The distribution of expressions of futurity in the interview protocol according to the number of years of formal education in Spanish in the L2 group

Education in Spanish	Expressions of futurity							Total
	PF	LF	PI	MF	Subj.	Cond.	Other	
< 5 yrs.	5.3% (2)	52.6% (10)	10.5% (2)	15.8% (3)	0.0% (0)	10.5% (2)	5.3% (1)	100.0% (19)
5-9 yrs.	27.9% (124)	25.2% (112)	22.5% (100)	4.5% (20)	1.8% (8)	5.2% (23)	12.8% (57)	100.0% (444)
≥10 yrs.	25.3% (227)	18.6% (167)	18.8% (169)	13.5% (121)	7.2% (65)	4.7% (42)	12.0% (108)	100.0% (899)
Total	25.8% (352)	21.2% (289)	19.9% (271)	10.6% (144)	5.4% (73)	4.9% (67)	12.2% (166)	100.0% (1362)

$p = .000$

In Table 4-22 we note that the distribution of future verb forms in the L2 group is statistically significant according to the number of years of formal education in Spanish, $p = .000$. From this table, we can make several observations. For instance, Table 4-22 reveals that L2 participants with five to nine years of formal education in Spanish tended to employ the LF, the PI, and to a lesser extent the PF more frequently than participants with ten or more years of education in Spanish.

We find the opposite trend in the use of the MF and the subjunctive in future-time contexts. That is, participants with ten or more years of formal education in Spanish employed these forms more frequently than participants with nine or fewer years of education in Spanish. The findings regarding the MF somewhat align with Geeslin and

Gudmestad (2010), who found that L2 learners who had studied Spanish formally for nine years or more produced the MF in more instances than those with fewer years of learning. It is possible that this result may be in part caused by the overrepresentation of the MF in Spanish textbooks (Orozco and Thoms, 2014) or another aspect that I will revisit in the discussion section of this dissertation.

Next, we examine the constraint of formal education in Spanish in the HS group. Answers to the language background questionnaire revealed that one HS had no formal education in Spanish, twelve HSs had less than five years of formal education in Spanish, twelve HSs had between five and nine years of formal education in Spanish, and the remaining fifteen HSs had been exposed to ten or more years of formal education in Spanish. Since only one HS participant had not received education in Spanish, the analysis will focus on the possible differences between those who had educational experience in Spanish.

Table 4-23. The distribution of expressions of futurity in the interview protocol according to the number of years of formal education in Spanish in the HS group

Education in Spanish	Expressions of futurity							Total
	PF	LF	PI	MF	Subj.	Cond.	Other	
NA	43.2% (19)	13.6% (2.1)	18.2% (8)	0.0% (0)	0.0% (0)	2.3% (1)	22.7% (10)	100.0% (44)
< 5 yrs.	35.9% (166)	17.9% (83)	18.6% (86)	0.9% (4)	4.8% (22)	4.3% (20)	17.7% (82)	100.0% (463)
5-9 yrs.	26.7% (127)	19.7% (94)	15.5% (74)	7.6% (36)	4.2% (20)	4.4% (21)	21.8% (99)	100.0% (476)
≥ 10 yrs.	27.2% (169)	17.2% (107)	20.5% (127)	5.0% (31)	6.8% (42)	6.1% (38)	17.2% (107)	100.0% (621)
Total	30.0% (481)	18.1% (290)	18.4% (295)	4.4% (71)	5.2% (84)	5.0% (80)	18.9% (303)	100.0% (1604)

$p = .000$

Table 4-23 shows that the number of years of education in Spanish HSs had received conditioned the future verb forms they employed in the interview protocol, $p =$

.000. Consistent with the findings gathered from the L2 group, we find that the PF was the preferred form to express futurity among all HS regardless of years of formal instruction in Spanish. However, we find that HSs with less than five years of education in Spanish employed the PF more frequently (35.9%) than those who had studied Spanish for five years or more (26.7% to 27.2%). We detect the opposite pattern with respect to the MF. HSs with five or more years of education in Spanish produced the MF with a higher frequency (up to 7.6%) than those who had studied Spanish for less than five years (0.9%). These findings align with Geeslin and Gudmestad (2010), who found similar trends regarding the use of the PF and MF and the number of years of formal education in Spanish L2 participants had received.

Only mild differences were found in the ranges of the frequencies of use of the LF (17.2% to 19.2%) and the PI (15.5% to 20.5%). That is, HSs' use of these two forms does not waver remarkably regardless of years of formal education in Spanish.

In sum, Tables 4-22 and 4-23 revealed that the number of years of formal education in Spanish that participants had received had an effect on the verb forms they employed to express futurity in the interview protocol. For instance, a higher number of years of formal education in Spanish was somewhat linked to a higher use of the MF, but this pattern was not consistent and waived in participants with ≥ 10 years in the HS group. Interestingly, the trends of verb form use according to the number of years of formal education in Spanish did not match the trends found regarding participants' language proficiency.

In other words, it seems that a high number of years of formal education in Spanish does not necessarily imply a high proficiency level and thus, does not imply that a preference

for one verb form should override another. Next, we turn our attention to the social constraint of gender.

4.3.3. Gender

The next external constraint to be examined is gender. The goal of examining this constraint was to shed light on whether there are differences in the way females and males express future time in Spanish. Table 4-24 presents the distribution of verb forms in the L2 group according to gender. The language background questionnaire revealed that in the L2 group 30 participants were female and 18 were male.

Table 4-24. The distribution of expressions of futurity in the interview protocol according to gender in the L2 group

	Expressions of futurity							
Gender	PF	LF	PI	MF	Subj.	Cond.	Other	Total
Female	23.2% (221)	24.4% (233)	20.8% (198)	11.5% (110)	4.9% (47)	4.3% (41)	10.9% (104)	100.0% (954)
Male	32.1% (131)	13.7% (56)	17.9% (73)	8.3% (34)	6.4% (26)	6.4% (26)	15.2% (62)	100.0% (408)
Total	25.8% (352)	21.9% (289)	19.9% (271)	10.6% (144)	5.4% (73)	4.9% (67)	12.2% (166)	100.0% (1362)

$p = .000$

Table 4-24 shows that a significant difference was found between female and male participants in their production of future verb forms, $p = .000$. While the PF was the preferred form by L2 learners overall (25.8%), we find differences between the verb forms produced in men and women's speech. Specifically, we find that males produced a higher frequency of PF (32.1%) than females (23.2%). This finding is in line with Geeslin and Gudmestad's (2010) study, which found that male L2 speakers produced the PF more frequently than their female counterparts.

In contrast, Table 4-24 illustrates that female L2 learners employed the LF (24.4%), the PI (20.8%) and the MF (11.5%) more frequently than their male counterparts (LF: 13.7%, PI: 17.9%, and MF: 8.3%). This finding is substantiated by Kanwit (2014), who also found that female L2 learners employed the MF more frequently than males. Thus, we can say that in this study the expressions of futurity are conditioned the L2 speakers' genders.

Next, Table 4-25 presents the data regarding gender and HSs' expression of futurity in the interview protocol. The language background questionnaire revealed that 29 HS participants were female and 11 HSs were male.

Table 4-25. The distribution of expressions of futurity in the interview protocol according to gender in the HS group

Gender	Expressions of futurity							Total
	PF	LF	PI	MF	Subj.	Cond.	Other	
Female	31.3% (394)	19.6% (247)	18.1% (228)	5.2% (66)	4.4% (55)	4.3% (54)	17.1% (216)	100.0% (1260)
Male	25.3% (87)	12.5% (43)	19.5% (67)	1.5% (5)	8.4% (29)	7.6% (26)	25.3% (87)	100.0% (344)
Total	30.0% (481)	18.1% (290)	18.4% (295)	4.4% (71)	5.2% (84)	5.0% (80)	18.9% (303)	100.0% (1604)

$p = .000$

Table 4-25 reveals that the distribution of future verb forms in the HS group is also statistically significant according to the gender of the participant, $p = .000$. As previously noted, the PF was the preferred form overall in the HSs group (30.0%). However, we find different patterns between men and women's speech in relation to the expressions of futurity. For example, we find that the female participants of the study produced a higher frequency of PF (31.3%) than males (25.3%). Since women are generally the drivers of linguistic change (Chambers, 1995; Díaz-Campos, 2011), this result could be taken to suggest that the use of the PF will continue to be on the rise.

Table 4-25 also reveals that female HSs produced higher frequencies of LF (19.6%) and MF (5.2%) than their male counterparts (12.5% and 1.5%, respectively). The distribution of the use of the PI was similar across genders in the HS group (18.1% in females and 19.5% in males). In contrast, males favored the “other” category (25.3%, over women’s 17.1%), which suggests that they employed a higher frequency of non-inflected verbs and present progressive.

Collectively, Tables 4-24 and 4-25 reveal that both L2 learners and HSs exhibited differences with regards to the constraint of gender.

4.3.4. Age

Last, the external constraint of age was examined to shed light on whether there are differences in the manner younger (under 30 years old) and older (30 years old and above) participants employed verb forms to express future time. Chi-Square tests revealed that the constraint of age was not statistically significant for the L2 group ($p = .051$) or the HS group ($p = .05$). That is, the data did not yield enough evidence to suggest that age may condition the verb forms that L2ers and HSs employed to express futurity. It is important to note that the number of participants in the 30 years old and above group was very low ($n = 2$ for L2ers, and $n = 2$ for HSs), therefore it is plausible that non-significant results are subject to a Type II error (false negative).

4.3.5. Summary of key findings: External constraints

This section has presented the analysis of the external constraints with regards to the verb forms employed to express futurity by L2 learners and HSs in the interview

protocol. Key findings regarding external constraints can be summarized as the following:

1. Exposure to a specific dialect of Spanish seemed to condition HS participants' use of verb forms to express futurity in the interview protocol. While speakers of all dialects favored the PF to express futurity, we found that participants exposed to the dialects of the Caribbean, Mexico and Central America, and South America were more similar than those who reported exposure to the dialect in Spain.
2. The number of years of formal education in Spanish slightly conditioned the expression of futurity in both L2 and HS participants. A robust finding was not detected.
3. The gender of participants conditioned future verb forms employed in the interview protocol. For example, the female participants in the HS group favoring of PF and LF could be taken to suggest that these forms are on the rise since women have been noted to be the innovators in language change (Chambers, 1995).

The previous two sections have addressed RQ2 by analyzing the effect of linguistic and external constraints on the expression of futurity by L2 learners and HSs. To further examine the data and to provide more insight into RQ1 and RQ2, the next chapter will focus on examining the metalinguistic awareness of participants.

CHAPTER 5: RESULTS ON METALINGUISTIC AWARENESS ON EXPRESSION OF FUTURITY

This chapter presents the findings regarding the metalinguistic awareness protocol that was conducted with the participants of the study with the purpose of responding to the third research question. The question inquired about the relationship between L2 learners' and HSs' production of future time forms and their metalinguistic awareness. The goal of examining metalinguistic awareness was to triangulate the data generated by the interview protocol by tapping into participants' explicit knowledge of expression of futurity.

To assess metalinguistic awareness, participants completed a metalinguistic awareness questionnaire regarding their perceived use of Spanish to express future time in different contexts. As detailed in Chapter 3, the written metalinguistic awareness questionnaire consisted of two parts: Part one, the variation task, focused on participants' ability to recognize and explain variation in expression of futurity in sets of minimal pairs. Part two, the metalinguistic narrative task, asked participants to explain how they thought they expressed futurity in Spanish. The entire metalinguistic awareness questionnaire had a written format and is included in Appendix D.

This chapter is organized as follows: First, the results of the variation task are presented. Second, the key findings that emerged in the metalinguistic narratives of each participant group are introduced. A summary of the findings closes the chapter.

5.1. Variation task

Part one of the metalinguistic awareness questionnaire consisted of a variation task. This task followed Van Compernelle and Williams (2011) and sought to evaluate participants' ability to recognize and explain the variation between forms used to express futurity (i.e., PI, MF, and PF). To this end, participants read two sets of three sentences that were minimal pairs except for the verb expressing futurity. One sentence presented the verb using PI, another sentence used MF, and the last sentence used PF. Participants were asked to identify the variation and to provide an explanation for it. An example of stimuli is presented below (see Appendix D for the entire protocol):

Ana tiene planes de ir a Boston

- (d) Ana viaja a Boston.
- (e) Ana viajará a Boston.
- (f) Ana va a viajar a Boston.

Recall that responses were scored on a scale from 0 to 3, following a slightly modified version of the coding guide in Van Compernelle and Williams (2011). The scoring was as follows:

- 3: Identifies locus of variation and provides an accurate explanation.
- 2: Identifies locus of variation but provides an unclear or incomplete explanation.
- 1: Identifies locus of variation but provides no explanation.
- 0: Does not identify the variation or provides an inaccurate explanation.

After scoring the responses, I calculated the mean score of each participant in each proficiency group of L2 learners and HSs. Higher mean scores corresponded to higher metalinguistic awareness regarding the expression of futurity. Then, I used the

statistical package SPSS to run ANOVAs to test whether the differences between the mean scores of the L2 and HS proficiency groups were significant. The results of the L2 group are presented first (Table 5-1).

Table 5-1. Mean scores of the L2 proficiency groups in the variation task

	L2-IM	L2-IH	L2-ADV
L2	1.30	1.68	2.36

Table 5-1 reveals that L2 participants' mean scores in the variation task increased with proficiency level. Specifically, we find that the L2-IM group obtained the lowest score ($M=1.30$), followed by the L2-IH group ($M=1.68$) and the L2-ADV ($M=2.36$). The scores in the L2-IM and L2-IH groups suggest that at these levels participants were able to identify the locus of variation in the sets of sentences, although their explanations were unclear or incomplete. For example, several participants limited their answers to translating the sentences in the task. In addition, there were several instances of inaccurate responses in the L2-IM group. For instance, six L2-IM participants identified the PF or the MF as the past tense in at least one of the two sets of sentences.

Regarding the advanced L2 learners, this group obtained the highest score in the variation task ($M=2.36$). This result suggests that the majority of participants at the advanced level were able to accurately identify the locus of variation in the minimal pairs and provided an incomplete or complete explanation of the variation. It is important to note that only participants in the advanced group obtained the maximum score of 3. In sum, Table 5-1 is suggestive of a relationship between the proficiency level of the L2 participants of the study and their performance in the variation task.

In order to test whether the differences between the L2 proficiency groups were

statistically significant, I performed a one-way ANOVA. The ANOVA results revealed that the proficiency level of the L2 learners in the study significantly affected their performance in the variation task ($F(2,47) = 9.623, p = .000$). Additionally, a Tukey post hoc test revealed that the score on the variation task was significantly higher in the advanced group ($M=2.36$) than in the intermediate-mid ($M=1.30, p = .000$) and intermediate-high ($M=1.68, p = .0035$) groups. In other words, the advanced L2 learners scored significantly higher in the variation task than their intermediate counterparts, meaning that the advanced learners were better able to recognize and explain variation regarding the expression of futurity in Spanish. In contrast, the mean scores of the L2-IM and L2-IH groups were not found to be significantly different ($p = .214$). These results suggest that the mean scores increased with proficiency level, with the largest difference shown in L2 learners with the highest proficiency level.

Next, in Table 5-2 we examine the scores of the HS participants of the study.

Table 5-2. Mean scores of the HS proficiency groups in the variation task

	HS-IM	HS-IH	HS-ADV
HS	1.05	1.60	1.82

In Table 5-2 we find that the mean scores of the HSs of the study also increased along the proficiency level spectrum. For instance, we find that the HS-IM participants obtained the lowest scores in the variation task ($M=1.05$). The data revealed that at the HS-IM level, participants were not able to provide an explanation concerning the variation in the task, or provided an inaccurate or incomplete explanation. At the HS-IH level ($M=1.60$), HS participants were able to identify the locus of the variation in the task, although occasionally they did not explain the differences, and when they produced the

explanations, they were still incomplete or unclear. The HS-ADV speakers obtained the highest score in the variation task ($M=1.82$). Although five advanced HSs were able to provide accurate descriptions of the variation, the majority provided incomplete or unclear explanations. Thus, we do find differences in the scores of the three HS proficiency groups. However, it is important to note that the range of mean scores of the HS groups is not very wide, and therefore the differences between groups are not very large.

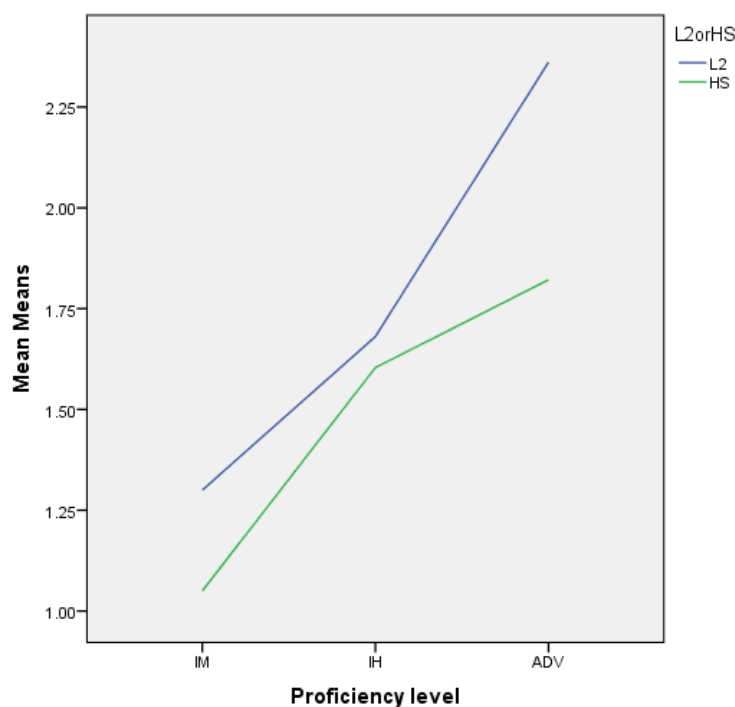
Similar to the L2 group, a one-way ANOVA was run to test whether the differences between the HS proficiency groups were significant. The results of the ANOVA determined that the differences between the HS proficiency groups were statistically significant ($F(2,39) = 3.521, p = .040$). A Tukey post hoc test revealed that the score on the variation task was significantly lower in the HS-IM group ($M=1.05$) than in the HS-ADV group ($M= 1.60, p = .017$). That is, the HS-ADV participants scored significantly higher than their HS-IM counterparts in the variation task, which means that advanced HSs exhibited higher metalinguistic awareness regarding the expression of futurity in Spanish. Interestingly, the mean scores of the HS-IH group were not found to be significantly different than those of the HS-IM group ($p = .076$) or the HS-ADV group ($p = .756$).

In sum, these results suggest that there was a difference regarding metalinguistic awareness between the lowest proficiency group (i.e., HS-IM) and the highest proficiency group (i.e., HS-ADV). However, the differences between the HS-IH group and the other two proficiency groups were not found to be statistically significant, possibly because the range in mean scores in the HS group was small in the variation task (from 1.05 in the

HS-IM group to 1.82 in the HS-ADV group).

We now proceed to compare the results of the L2 and HS groups in the variation task. As noted in Chapter 2, it was expected that students in the L2 group, who acquired Spanish in a classroom setting, would be more capable of recognizing the locus of variation and of explaining its meaning than HSs whose primary source of input was authentic discourse. To help compare the data of the L2 and HS participants, a graphical illustration of the results of both groups follows (Figure 5-1).

Figure 5-1. Mean scores of the L2 and HS groups in the variation task



In Figure 5-1 we observe that the L2 participants of the study outperformed their proficiency-matched HS counterparts at all three proficiency levels, although the difference at the IH level seems minimal. This finding is substantiated by Correa (2011), who found that L2 learners outperformed HS learners in metalinguistic knowledge

regarding mood selection (and conversely, HSs outperformed L2ers in subjunctive accuracy). In our study, we can hypothesize that formal explicit instruction in Spanish played a role and contributed to L2 learners' higher scores recognizing and explaining variation regarding the expression of futurity. That said, although the HSs of the study acquired Spanish in the home, they had also received formal instruction in Spanish that may have influenced their responses.

In order to test whether the differences between the L2 learners and the HSs were statistically significant, additional ANOVAs with contrast tests were run to compare the scores obtained at each proficiency level by participants from both speaker groups (i.e., L2 and HS). The results of the contrast tests revealed that the mean scores of the L2 learners in the variation task were significantly higher than the scores of the HSs at the advanced proficiency level ($p = .024$). Indeed, over 50% of L2-ADV participants scored a 3 (the highest score) in at least one of the two items of the variation task, while only a quarter (25%) of HS-ADV speakers did. Furthermore, a lower percentage of L2-ADV participants scored under 2 in the variation task compared to HS-ADV.

Regarding intermediate proficiency speakers, although the L2-IM and L2-IH learners of the study also scored higher than their HS counterparts overall, their performance in the variation task was not found to be significantly different ($p = .414$ and $p = .748$, respectively). Thus, we find that the difference between the L2 and HS groups was larger at the advanced proficiency level than at the lower proficiency levels. It is important to note that the differences between the two groups reflect the input they received in the setting where they acquired Spanish and do not imply or suggest that one group is superior to the other.

To begin to respond to RQ3, which inquired about the relationship between metalinguistic awareness and expression of futurity, it is necessary to triangulate the results from the variation task with the results from the interview protocol presented in Chapter 4. Specifically, we will compare the results from the variation task to the results of the multinomial logistic regression, the test that determined which linguistic constraints predicted verb form use in the interview protocol at each proficiency level, as well as the statistical weight of the predictions (see 4.2.6).

Two main observations can be made regarding this comparison. First, the results of the variation task revealed that L2 and HS groups with a more advanced proficiency level scored higher in the variation task than their lower proficiency counterparts. That is, higher proficiency participants were better able to identify and explain variation regarding the expression of futurity. This finding aligns with the result from the logistic regression, which found developmental patterns regarding several linguistic constraints in the analysis of the responses to the interview protocol. For instance, the constraint of markers of certainty was only significant in the higher proficiency groups, which can be taken to suggest that this constraint is acquired later and therefore, possibly not available in metalinguistic knowledge at the lower proficiency levels. A second observation from the variation task is that L2 learners showed a better understanding of variation regarding the expression of futurity than their HS counterparts, especially at the advanced level. Again, this finding is in line with the results from the logistic regression of the interview protocol, which revealed that overall, in the L2 group more constraints were significant contributors in the models which tried to explain the predictors that condition the expression of futurity.

In sum, and to begin answering RQ3, the variation task revealed the following findings:

1. Participants' proficiency level affected their performance in the variation task: Both L2 learners and HSs with an advanced mastery of Spanish were better able to identify and explain variation regarding the expression of futurity than their lower proficiency counterparts.

2. Overall, the L2 participants in this study demonstrated a more nuanced understanding of variation regarding the expression of futurity than the HS participants, especially at the advanced proficiency level.

These results align with the findings of the interview protocol, in which participants produced spontaneous speech. Therefore, the metalinguistic data seems to support the results of the production data.

This section has analyzed participants' ability to recognize and explain variation regarding the expression of futurity. To shed more light on L2 learners' and HSs' metalinguistic awareness and to continue addressing RQ3, the next section will examine the metalinguistic narratives originated from the second part of the metalinguistic questionnaire.

5.2. Metalinguistic narratives

Part two of the metalinguistic protocol consisted of a narrative task. The narrative task complemented the variation task (5.1.) in answering RQ3, which inquired about the relationship between the production of future time forms and metalinguistic awareness of L2 learners and HSs. Specifically, part two sought to evaluate participants' explicit

knowledge of variation between forms used to express futurity in Spanish. Part two followed Kinginger and Farrell's (2004) language awareness interview. The goal of this part of the questionnaire was to obtain metalinguistic narratives where participants discussed how they thought they expressed futurity in Spanish. The entire metalinguistic awareness questionnaire is included in Appendix D. As detailed in the methodology chapter, participants read three scenarios related to life in a college campus (one scenario in the near future, one in the medium future, and one in the distant future). Participants were then prompted to explain how they would talk about the future in those situations and to comment on how they would decide which words and verb forms to use. After the three scenarios were presented, a final question prompted participants to comment on their personal use of terms when talking about the future and to explain which factors may have influenced the way they expressed futurity in Spanish. This last question was an open-ended one in which participants were asked to provide as much information as possible. Although the questions were in English, participants were informed that they could type their answers in English or Spanish. In this chapter, excerpts of the metalinguistic narratives appear in the language in which they were produced by the participants. Metalinguistic commentary provided in Spanish is accompanied by an English translation.

The metalinguistic narratives resulting from part two of the metalinguistic awareness questionnaire were analyzed quantitatively and qualitatively. First, I identified the terminology that participants used to refer to future verb forms in their written metalinguistic narratives (e.g., participants employed terms such as "futuro simple," "voy a + infinitive," "conditional," etc., to refer to the verb forms they use when discussing

future events). I then calculated the frequency with which each future verb form was alluded to by each proficiency level and each speaker type. The goal of this analysis was to examine whether the frequency with which participants referred to terminology for each future verb form differed between the groups, and to compare these results with the future verb forms participants produced in their answers in the interview protocol (shedding light on RQ3).

In addition, following the methodology employed by Kinginger (2008) and Lovejoy (2015), I analyzed the narratives to identify themes or common threads or explanations among them. The reason for identifying themes was to explore whether each group may have relied on different explanations with respect to how futurity is expressed. First, I calculated the frequency with which each theme appeared in the narratives of each speaker group. Second, for the qualitative analysis, the themes that emerged in the narratives were illustrated through representative examples from the corpus of metalinguistic narratives. Together, the quantitative and the qualitative analysis of the narratives provide a more detailed picture of participants' metalinguistic awareness regarding the expression of future time. This analysis will respond in part to RQ3 by comparing participants' explicit knowledge on the expression of futurity with their actual production of future verb forms in the interview protocol.

5.2.1. Future verb forms

We begin with the quantitative analysis of the metalinguistic narratives to depict the metalinguistic choices made by the participants. First, I identified the terminology referring to future verb forms that participants employed in their narratives. For instance,

participants employed terminology and expressions such as “future simple,” “future” or simply inserted a verb conjugated in MF in brackets (e.g., “comeré”) to refer to the MF. I then calculated the frequency with which each participant group evoked each future verb form in the metalinguistic narratives. To illustrate the comparison, Figure 5-2 presents the frequency of allusions to each future verb form by each speaker group. Note that the size of the groups ranged from 5 to 21 participants. Thus, for comparison purposes, I weighted the data to adjust for the unequal sample size.

Figure 5-2. Future verb forms invoked by each participant group in the metalinguistic narratives

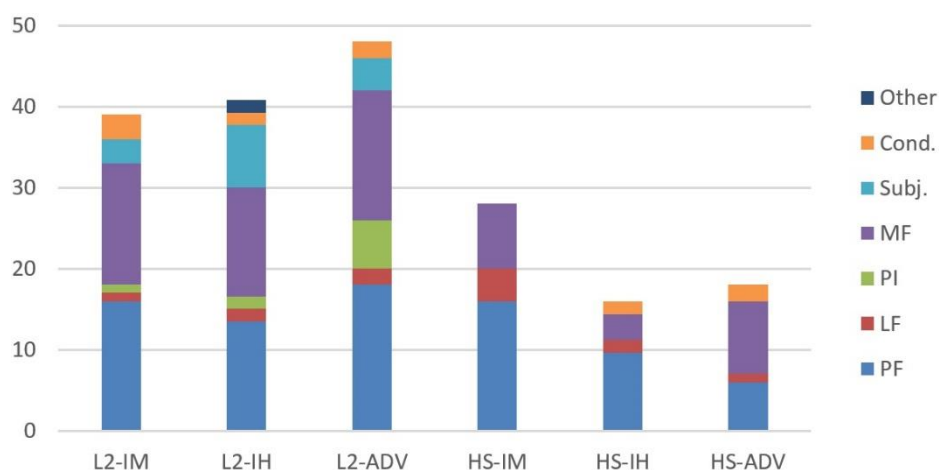


Figure 5-2 reveals that all participant groups strongly favored alluding to the PF and the MF in their metalinguistic narratives (though note that L2 learners referred to the MF in their narratives more frequently than their HS counterparts).

Several noteworthy findings can be made with regards to RQ3, which inquired about the relationship between metalinguistic awareness and the future verb forms employed by participants in the interview protocol. First, we find that in the metalinguistic narratives participants preferred the PF, so this finding is consistent with the results of the quantitative analysis of the interview protocol presented in the previous

chapter (Chapter 4). However, we also find that the preference for the MF in the metalinguistic narratives contrasts with the results of the interview protocol, which revealed that the most frequently used forms to express futurity in the corpus of this study were the PF, the LF, the PI, and the MF (in that order). In other words, we find that there was an overrepresentation of the MF in the metalinguistic narratives compared to the interview protocol, especially in the L2 group. This result might be due to the overrepresentation of the MF in L2 Spanish textbooks (Orozco and Thoms, 2014) or the fact that in recalling grammar, they may have opted to choose what they thought was the correct response. Thus, we find that the different protocols (i.e., the interview protocol and the metalinguistic awareness questionnaire) yield different tendencies. These findings suggest that there are differences between the production of future verb form by L2ers and HSs and the cognitive associations they make regarding the use of these verb forms when expressing futurity. The findings also suggest that in their linguistic repertoire, they are aware of the variation that exists in expressing futurity.

In addition, in Figure 5-2 we observe differences between the L2 learners and the HSs of the study with regards to the future verb forms they invoked in their metalinguistic narratives. Specifically, we find that the L2 learners invoked future verb forms more frequently than their HS counterparts. This finding contrasts the data from the interview protocol, which revealed that HSs produced a slightly higher frequency of verb forms in their responses. Further, in Figure 5-2 we note that L2 learners alluded to a higher variety of future verb forms in their narratives than their HS counterparts. For instance, we find that L2 participants as a whole referred to the seven future verb categories that were coded in this study (i.e., PF, LF, PI, MF, subjunctive, conditional,

and “other” verb forms). However, the HS participants only alluded to using four verb forms to express futurity (i.e., PF, LF, MF, and conditional), although they employed additional future verb forms in the interview protocol (e.g., the PI and the subjunctive). Therefore, the metalinguistic narratives reveal differences between the L2 learners and the HSs that were not present in the interview protocol.

We can hypothesize that these results are due to L2 learners having acquired Spanish in a classroom setting where there is often an explicit metalinguistic component involved. Although the HSs of the study had also received instruction in Spanish, these results seem to align with previous research (Correa, 2011; Samaniego and Pino, 2000) who found that HL learners of Spanish struggle to produce linguistic terminology, possibly because they acquired the language in the home where there is naturalistic input and not a focus on terminology about verb forms.

In sum, to continue responding to RQ3, Figure 5-2 reveals both similarities and differences between participants’ metalinguistic awareness and their production of future forms in the interview protocol. We found that the PF was the preferred form by L2 learners and HSs in both the metalinguistic narratives and the interview protocol. However, there was an overrepresentation of the MF in participants’ narratives, especially in the L2 group. In addition, L2 learners’ narratives included a higher frequency and more variety of references to future verb forms than the narratives generated by the HSs of the study, which was not the case in the responses generated from the interview protocol. As previously mentioned, these differences between L2 learners and HSs can be taken to highlight the roles of input and learning setting in the language acquisition process.

In order to shed light on this matter, Chapter 7 will triangulate the data and will present a discussion of the main findings of the study.

5.2.2. Themes in the metalinguistic narratives

Having examined the future verb forms invoked by each participant group, we now focus on analyzing the main themes that emerged in the metalinguistic narratives. Remember that I followed Kinginger (2008) and Lovejoy (2015) and analyzed the narratives to identify themes or common threads among them. The themes provide a glimpse into the factors that participants believe affect the way in which they express futurity in Spanish and will thus help shed more light on RQ3. The seven themes that emerged from the analysis are defined below. Each definition is followed by an excerpt from the metalinguistic narratives that illustrates that particular theme¹².

1. Level of difficulty: This theme includes commentary regarding participants' perceived level of ease and comfort when employing the different future verb forms. Participants also commented on how their ability to recall tenses and conjugate verbs influences their verb choice. For example, an L2-IM participant wrote:

(1) L2-29-IM. *I use "ir a..." as much as possible because I am comfortable talking about the future in that form and am confident that I will not make any mistakes.*
2. Intuition: This category includes narratives related to speakers' reliance on intuition when expressing futurity. Participants commented on following their instinct. These narratives reveal a lack of awareness with regards to the verbs employed, as in the following observation made by a HS-IH speaker:

¹² These excerpts represent authentic metalinguistic narratives written by the participants of the study. Note that the excerpts are reproduced as the participants wrote them and may contain grammatical, punctuation, and spelling errors. The excerpts that contain errors are marked with *[sic]*. This protocol was the last one that participants completed and fatigue may have contributed to some of the errors.

(2) HS-18-IH. *I honestly don't think about the verb tense when I talk in Spanish. I say whichever verbs without thinking about it, and I just hope that I'm using them correctly.*

3. Certainty and probability: This theme refers to speakers' attitude toward the propositional content of an utterance (e.g., probability or possibility). The theme encompasses narratives that conveyed the idea that the intention and the degree of confidence that speakers have about an event taking place play a role when talking about future events. An intermediate-mid L2 learner explained:

(3) L2-8-IM. *When talking about definite plans in Spanish, I use verbs conjugated in the future tense, or I use the ir + a + infinitive verb. However, when talking about the future in a more imaginative, unsure way I would use the conditional or subjunctive to express opinions or thoughts about what might happen. The main factor is the certainty of the future being described.*

4. Temporal distance: This theme captures instances in which participants discussed that temporal distance, namely how far in the future an event will occur, influences the verb forms they use when expressing futurity. An example of a narrative on the theme of temporal distance follows. An advanced HS wrote:

(4) HS-36-ADV. *When talking about the future in Spanish it depends on if I'm talking about the immediate future or the far away future. If I'm talking about my weekend I think I tend to use "voy + a + verb" but if something is a little further in the future I tend to use the future verb tense.*

5. Formality: This category includes commentary by L2 and HS participants indicating that the manner in which they express futurity depends on the context or institution in which the interaction takes place. Specifically, participants commented expressing futurity differently and using a different register depending on the status of their interlocutor (higher, equal, or lower). This theme also encompasses commentary regarding the difference between written (formal) and oral (generally more informal) modes. For example, an advanced L2 learner reflected:

(5) L2-36-ADV. *I believe that I use the ir+a+infinitive to talk about the future in the long term and in less formal settings. I would use the future tense (like *estare*) to talk about the more immediate future and in more formal settings (...) In informal settings I would also use future key words instead of verbs, like *manana*, *la proxima semana*, *el mes que viene*. For example, I could say *manana como almuerzo con mi madre* instead of *manana comere almuerzo con mi madre* [sic].*

6. Translation: This theme captures instances where participants matched the Spanish future verb tenses to their equivalents in English (e.g., *ir a + inf* and "going to + inf"). In addition, this category includes instances in which speakers

explained that they first thought in English and then translated their ideas about the future into Spanish. An intermediate-mid L2 learner explained:

(6) L2-3-IM. *Voy a comer means that I am going to eat, where as comere means that I will eat, and como means that I eat. These phrases are used in different contexts. For example, if someone asks what you are going to do tonight, you would use voy a comer [sic].*

7. Other: This category encompasses commentary regarding topics such as instructional effects, repetition, and code-switching. An example of a narrative on the themes of instruction and repetition by an L2 learner follows:

(7) L2-5-IH. *I usually use ir + a + infinitivo because it was the first way I learned how to use future tense. If I have already used ir + a + infinitivo in a sentence I will use the other future tense so it doesn't sound repetitive.*

After the themes were identified, the frequency with which they were mentioned in the metalinguistic narratives of each of the six speaker groups was calculated. Figure 5-3 presents the themes that emerged in the narratives of each participant group and will allow for the comparison of the themes invoked by the different participant groups.

Figure 5-3. Themes invoked by each participant group in metalinguistic narratives regarding expression of futurity in Spanish

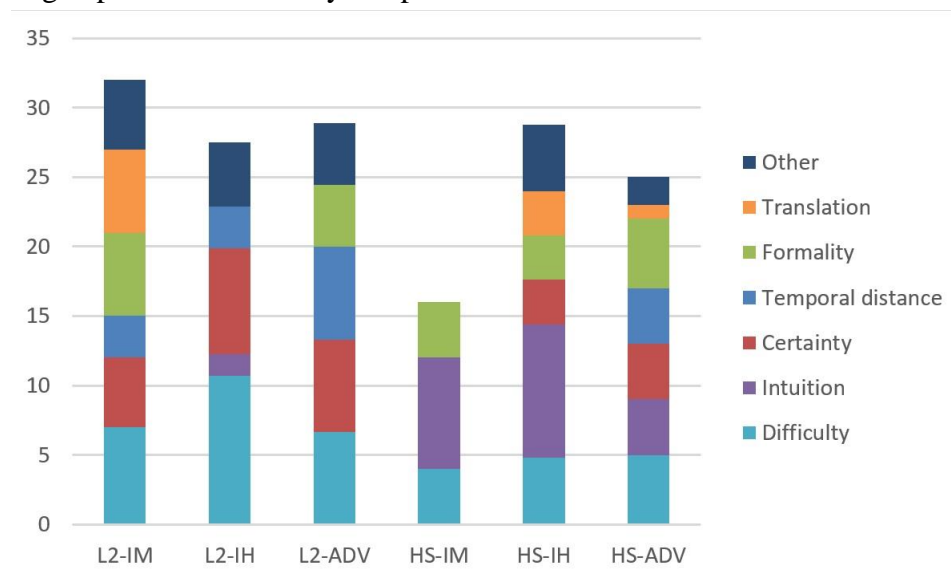


Figure 5-3 depicts that L2 learners and HSs of all levels discussed multiple themes in their metalinguistic narratives. That is, participants relied on a variety of explanations to convey the factors that they believe influence the manner in which they express futurity in Spanish. That said, we do find differences between the participant groups with regards to the themes they favored in their narratives. For instance, we find that the L2-IM group did not rely particularly on one given topic but on several. However, participants in the L2-IH group relied on explanations related to difficulty and certainty more. Participants in the L2-ADV group discussed multiple themes, although they seemed to rely slightly more on the themes of temporal distance, certainty, and difficulty. Overall, the most frequently invoked theme by the L2 learners of the study was level of difficulty, followed by certainty. These findings may be due to instructional effects, since there is often a focus on accuracy in the Spanish classroom and L2 Spanish textbooks often refer to certainty and temporal distance in explanations regarding the use of the different future verb forms.

Regarding HSs, Figure 5-3 reveals that HS-IM participants relied more on explanations related to intuition. Similarly, intuition is also the dominant narrative in the HS-IH narratives, although this group relied on a wider variety of explanations than the HS-IM. At the HS-ADV proficiency level, we find that intuition is not the dominant narrative anymore, and HS-ADV speakers do not particularly rely on an explanation but on several. In sum, in the HS group, intuition-based responses seem to override other themes at the intermediate proficiency level, but not at the advanced level. The results suggest that, as proficiency level increases and possibly with increased formal education in Spanish, HSs' explanations regarding the expression of futurity become more nuanced

and also include other factors such as difficulty level, certainty, formality, or temporal distance.

In sum, Figure 5-3 provided a glimpse into the cognitive aspects of participants' choices when expressing futurity in Spanish. Overall, L2 learners and HSs showed the following trends regarding metalinguistic themes in their narratives:

1. The L2 learners highlighted that the level of difficulty they associated with the different verb forms influenced their choices when expressing futurity in Spanish.
2. L2 learners also relied on the themes of certainty and temporal distance in their narratives.
3. In contrast, the HSs relied on the theme of intuition to explain their use of futurity in Spanish, especially at the lower proficiency levels.

These results suggest that overall the HSs in this study relied more on their intuition than their L2 learner counterparts, who expressed more concern about their ability to conjugate verbs and about accuracy in general. Again, these findings seem to speak to the effects of age and context of acquisition: While HSs rely on the naturalistic input they have been exposed to, L2 learners seem to focus on factors that they have possibly been exposed to during language instruction.

Having quantitatively analyzed the themes that appeared in the metalinguistic narratives, we now begin the qualitative analysis. For each of the seven themes identified, I first present excerpts from the participants' responses and then discuss the excerpts. I begin the qualitative analysis by examining the theme of difficulty, the most frequently invoked theme overall by the participants of this study.

5.2.2.1. Participants' narratives on the theme of difficulty

As seen in Figure 5-3, difficulty was the dominant theme in the L2 metalinguistic narratives, and this theme also appeared in the narratives of the heritage speakers of the study. First, we examine the L2 narratives, then we analyze the HS narratives. In the first excerpt, an L2-IM participant wrote about difficulty conjugating certain verbs forms in Spanish.

(8) L2-40-IM. *I don't use the future much because I am not very comfortable with it but when I do I try to use verbs and then other words to help get my point across because I don't always conjugate correctly. I express my thoughts with verbs by using simple ones that are easier to conjugate so that the point I am trying to make gets across. Sometimes when verbs are more difficult to conjugate and have stem changers I try not to use them because I think if I conjugate them wrong I won't be saying the right thing.*

In this excerpt, the L2 learner explains why she does not tend to use the MF when expressing futurity in Spanish. Two sub-themes emerge in her narrative: First, she notes that she is not confident using the MF because she is worried about not always conjugating the verbs accurately. This preoccupation about not saying “the right thing” could stem from language learning experiences in contexts in which there was an emphasis placed on grammatical accuracy. Second, we note that this speaker indicates that she finds difficulty when conjugating certain verbs in the MF. Specifically, she notes that regular verbs are easier to conjugate than irregular ones (stem-changing verbs). The use of the term “stem-changing” denotes high metalinguistic awareness, probably a result of having been exposed to explicit grammar instruction in Spanish classes. In the next excerpt, an L2 learner with higher proficiency elaborates on the theme of difficulty:

(9) L2-42-IH. *Cuando yo hablo sobre el futuro en espanol, tengo que decidir cuales verbos son mas faciles de usar, pero todavia tienen sentido. Con eso dicho, muchas veces yo trato de usar los verbos de la forma "ir + a + infinitivo" porque en mi opinion es mas facil de entender, e incorporar aspectos de las conjugaciones del verbos*

en el presente. Por ejemplo, creo que "Yo viajara al Florida este verano" es mas dificil que "Ella va a viajar al Florida este verano". Sin embargo, pienso que a veces yo uso las dos formas dependiendo en la situacion. Si yo estoy hablando sobre alguna persona o grupo de personas, y no yo, definitivamente uso la forma del futuro "ir a infinitivo". Si yo estoy hablando sobre mi mismo, creo que podria usar los verbos del futuro como "viajare" "comere" "trabajare" porque la adiccion de la '-e' es mas facil de recordar cuando hablo de informacion personal sobre yo [sic].

‘When I talk about the future in Spanish, I have to decide which verbs are easier to use, but still make sense. That being said, I often try to use verbs in the “ir + a + infinitive because in my opinion it is easier to understand and incorporate aspects of the conjugations of verbs in the present. For example, I think that “I will travel-MF to Florida this summer” is more difficult than “She is going to travel-PF to Florida this summer”. However, I think that I sometimes use both forms depending on the situation. If I am talking about a person or a group of people, and not me, I definitely use the future form “ir a infinitive”. If I am talking about myself, I think that I could use the verbs in the future such as “I will travel-MF”, “I will eat-MF”, “I will work-MF” because the addition of the “-e” is easier to remember when I talk about personal information about myself.’

Excerpt (9) is illustrative of how an L2 learner frames the theme of difficulty in terms of a contrast between the PF and the MF. Specifically, this speaker notes that it is easier to conjugate verbs in PF than in MF. This comment was echoed by many other participants, who often reported relying on the PF because of its easiness. Interestingly, although the speaker in (9) perceives the MF as being difficult to conjugate, this speaker also notes that she does employ the MF under certain circumstances. In particular, the speaker comments that she favors the use of the MF when she is talking about herself, possibly because she finds it is easier to access the first-person singular conjugation of verbs than the remaining persons of the conjugation. Another L2 learner mentioned that more frequent verbs (like *haber* ‘to have/to be’) are easier to conjugate in MF than other lexical verbs. In other words, verb frequency also seems to play a role in how L2 learners perceive difficulty regarding the conjugation of the MF. Again, here we find a sensitivity to this feature and metalinguistic awareness in an L2 context.

Thus, in excerpts (8) and (9) we gather that L2 learners associate a higher difficulty to the MF compared to other verb forms. Further, L2 speakers note different perceived levels of difficulty in the conjugation of the MF and use it selectively in the instances where they find it easier to conjugate.

Next, we examine HS narratives on the theme of difficulty. In the next excerpt in a heritage speaker comments on the theme of difficulty:

(10) HS-6-IH. *I think in English for starters. I notice sometimes I try to avoid conjugating verbs, I say things like "ir a" or things like that. I speak how I think sounds right, and kind of play everything by ear. I know there are more structures grammatically I could use to better express myself but it's hard for me to remember/learn, so in the moment of speaking it doesn't come to mind. What comes to mind is what I've gathered from the language.*

The narrative in excerpt (10) combines the themes of difficulty and intuition. Regarding difficulty, the speaker points out that she finds it hard to conjugate verbs in Spanish. Therefore, she avoids conjugation and tends to use structures such as the PF (which do not involve conjugating the main verb), even though she is aware that other verb forms could be more suitable in certain contexts. In addition, the speaker repeatedly notes that she has a “feeling-of-knowing”. That is, since she has grown up being exposed to Spanish, certain structures sound familiar to her and she is able to “play it by ear” (e.g., using circumlocution) when speaking about the future. In sum, we gather that this HS is able to avoid or overcome difficulty by relying on what is familiar and on intuition.

Similarly, a HS of advanced proficiency notes:

(11) HS-36-ADV. *Most of the time, I use "ir" + infinitive if I don't know how to conjugate a verb in the future tense. I feel more comfortable using "ir" + inf. because I can answer questions more readily, quickly.*

Excerpt (11) depicts how a HS favors the use of the PF over the MF when expressing future time. The speaker comments that she is able to use the PF more easily, whereas she sometimes does not know how to conjugate in the MF. Again, the challenges and difficulty associated with the MF are due to the changes in the morphological ending of this verb form. Thus, this speaker believes that she employs the PF as default compared to the MF.

In sum, both the L2 learners and the HSs in this study invoked the theme of difficulty in their metalinguistic narratives, commenting that they favored the use of the PF (often in contrast to the MF) because of its lack of difficulty. However, a closer look at the data revealed differences between the groups. Namely, L2 learners expressed concern about accuracy as a reason for employing other verb forms that are easier to conjugate while the HS did not. Further, L2 learners specified why and in which instances the MF was more difficult for them. Heritage speakers, however, resorted to intuition to explain their choices and were not as specific about the reasons why they favored the use of the PF over other verb forms when they expressed futurity in Spanish.

5.2.2.2. Participants' narratives on the theme of intuition

We now turn to examine excerpts that invoked the theme of intuition, the most frequently invoked theme by the HS participants of this study. The first two examples focus on responses in which HS participants discussed the theme of intuition as the defining factor when expressing futurity. When explaining which verb forms he used to discuss the future, a HS-IM participant wrote:

(12) HS-38-IM. *When talking about the future I use "voy" and then the infinitive of the verb I want to use. "Voy hacer esto" Honestly I use the words that sound right in my head. I try to use the right version of the word in the right tense.*

In this response, the speaker indicates her preference to use the PF when expressing future time, but she is not able to ascertain the reasons why. In addition, the speaker adds that she uses her instinct to achieve accuracy in Spanish. Similarly, a HS-IH speaker wrote:

(13) HS-18-IH. *I honestly don't think about the verb tense when I talk in Spanish. I say whichever verbs without thinking about it, and I just hope that I'm using them correctly. I know that I often use verbs that sound similar to the English verbs, but are being incorrectly used in Spanish. (...)*

In excerpt (13) we also gather that the speaker relies on intuition and is unaware of the factors that may shape her choices when speaking about future events in Spanish. Interestingly, both excerpts (12) and (13) include the word “honestly”, suggesting that the speakers really do not know why they employ the words they do when they express future time. Other fellow HSs expressed similar notions, providing explanations such as “what sounds right” (HS-28-IH), and “sounds correct” or “I’ve heard it before” (HS-5-ADV). Overall, these excerpts point to HS participants relying on their language experience. The excerpts are also representative of language acquisition in a naturalistic setting in which the acquisition process is implicit rather than explicit.

We now turn our attention to the themes of temporal distance and certainty, two themes that were often discussed together in participants’ metalinguistic narratives.

5.2.2.3. Participants' narratives on temporal distance and certainty

As previously mentioned in the quantitative analysis, these themes were invoked more frequently by L2 learners than by their HS counterparts. The next two examples focus on responses in which the participants showed a clear understanding of the constraints regarding temporal markers and certainty. In the following excerpt an L2 learner explains how these two constraints influence the verbs she uses when expressing futurity:

(14) L2-41-IH. *For verb choice, it really depends on the scenario. For instance, approximate/relative time frame plays a huge role in my decision of which tense to use. Along the same lines, the degree of certainty that I have regarding the future scenario also comes into plans. Typically, plans in the immediate future are more solidified and therefore will be spoken about using 'voy a' + infinitive; plans in the near future are discussed using a mix of subjunctive and the future tense; plans far in the future will be exclusively subjunctive. However, as mentioned, all of these generalizations are changeable based on the time frame, certainty level, and preference of the speaker (in this case, myself). The other words that I use depend on the theme of the scenario. However, in terms of context clues, as an L2 Spanish learner, I find it helpful (for myself and listeners) to include context clues, like 'espero que,' 'manana,' 'luego,' etc. so that it is clear what type of time frame I'm referring to [sic].*

In excerpt (14) the speaker highlights the role that temporal distance plays when talking about future events. Further, she explains that the degree of certainty she has about a future event also plays a role in the manner in which she expresses futurity in Spanish. In addition, this L2-IH learner notes that these two factors are interconnected. Specifically, the speaker links the immediate future and high certainty with the PF, the near future with the subjunctive and the MF, and the distant future only with the subjunctive. Interestingly, this speaker writes that the generalizations mentioned above are flexible, and adds that the factor of "personal preference" also plays a role when expressing futurity. Finally, the speaker mentions that she also uses lexical markers to provide information about the time frame she is referring to. Therefore, based on excerpt

(14), we gather that this L2-IH learner shows an awareness of how multiple factors constrain the expression of futurity in Spanish and she describes the strategies she uses to express futurity. That is, this L2-IH speaker is aware that expression of futurity is a linguistic variable, and that different verb forms can be used depending on the context.

The next excerpt was produced by the only HS participant that mentioned both temporal distance and certainty in her metalinguistic narration. As we can see, we find differences with the L2 excerpt examined above.

(15) HS-14-ADV. *I believe that time frame of the future that you are referring to changes the tense that is being used. If I am referring to my plans for the night compared to my plans for after college, different tenses may be used. This I believe is due to the fact that what is closer to us in time is more concrete than what is years from now.*

In excerpt (15) we gather that the speaker is aware that the constraint of temporal distance influences the way she expresses futurity in Spanish. She specifically differentiates between actions taking place in the near future or in the distant future. In addition, she attributes the effect of temporal distance to certainty. Namely, she considers that the near future is more connected to high certainty, has a greater probability of happening, and is more concrete than the distant future. However, this speaker does not mention any specific verb forms that she would use in the different time frames she described.

In sum, both excerpts (14) and (15) invoke the themes of temporal distance and certainty in a similar way, although we find that the L2 learner was more explicit than the HS. That is, the L2 learner provided a more detailed account of the factors constraining expression of futurity and specified verb tenses and other words she would use when talking about the future. This observation can also be found in other excerpts. What is

noticeable in these excerpts is that the L2 learners and the HSs of the study provided different metalinguistic explanations even when discussing the same themes.

5.2.2.4. Participants' narratives on the theme of formality

The theme of formality includes commentary on how the context of communication (e.g., the institution or the status of the interlocutor) shapes how participants express futurity in Spanish. All participant groups except the L2-IH group discussed this theme. The next excerpt presents a metalinguistic narrative by a L2-ADV participant on the theme of formality:

(16) L2-36-ADV. *I believe that I use the ir+a+infinitive to talk about the future in the long term and in less formal settings. I would use the future tense (like *estare*) to talk about the more immediate future and in more formal settings. I would also use the present subjunctive tense to talk about the future where appropriate. In informal settings I would also use future key words instead of verbs, like *manana*, *la proxima semana*, *el mes que viene*. For example, I could say *manana como almuerzo con mi madre* instead of *manana comere almuerzo con mi madre* [sic].*

In excerpt (16) the advanced L2 learner draws a connection between the level of formality and temporal distance. Regarding the level of formality, this participant associates more informal settings with the PF and lexical markers. She also associates formal settings with the use of the MF. In addition, the speaker provides two examples using lexical markers. In the first example, she employs the PI, which could be taken to suggest that she uses the PI in informal contexts as well. Interestingly, in the second example, using a lexical marker, this speaker employs the MF (a verb form which she had linked to more formal settings). Thus, we find an inconsistency in the metalinguistic narrative of this advanced L2 speaker. It is important to note that, to my knowledge, the literature on the expression of futurity in Spanish has not established a correlation

between verb forms and the constraint of formality. Since the metalinguistic narrative was a written task that was part of a study, it is possible that this participant felt that he had to provide more information and by doing so violated Grice's maxim of quality.

The triangulation of results and the discussion presented in Chapter 7 will shed light on the matter of inconsistencies and variability.

Next, we continue examining the theme of level of formality with an excerpt written by an advanced HS:

(17) HS-24-ADV. *It also depends on the type of listener, whether they are a peer or a superior. If the listener is a superior, I would need to speak more formally. If it is a peer, I can speak more informally. When I speak with a professor, it is important to be as clear and specific as possible.*

In excerpt (17) the heritage speaker notes that the status of the interlocutor influences the manner in which he talks about future events. Specifically, the HS described that he would use more formal language when communicating with someone of higher status than him, and more informal language when speaking with someone of equal status. In particular, this speaker refers to professors (presumably as someone of higher status), noting the importance of clarity when communicating with them. This commentary regarding the level of formality may be due to this particular HS having taken Spanish courses at the university and being aware that his register is often considered informal. However, unlike the L2 in (16), this HS does not provide details or examples of future verb forms he would use in either of the contexts he mentions (i.e., formal or informal). An advanced HS also produced the next excerpt:

(18) HS-17-ADV. *I think when something is more formal like in a class setting I tend to conjugate the verbs to match the tense. It seems like when I want to talk naturally and informally I use words like "voy a..", "va ser", "vamos a tener que.." instead of*

conjugating the verbs. For example, like "sere" or "sera" for ser or "ire" for "voy a ir" or "tendramos que.." for "vamos a tener que...". The conjugations that change the verb are more formal in my mind and take more time to think about then just using "voy" or "vamos" with a verb [sic].

In excerpt (18) the advanced HS explains how the factor formality of the university context in which the communicative act took place influences the verb forms she employs when expressing futurity in Spanish. In contrast to the HS-ADV speaker in (17), the HS that wrote excerpt (18) does specify verb tenses in her metalinguistic narrative. Thus, we do not only find marked differences between groups, but also within speaker groups (note that excerpts 17 and 18 were both produced by advanced HSs). Regarding the level of formality and verb forms, the HS in (18) reports that she employs the PF in informal situations because it comes to her naturally, whereas in more formal settings (e.g., in class) she employs the MF and in general conjugates verbs according to the time frame she is referring to. This explanation could be due to instructional effects such as the overrepresentation of the MF in Spanish textbooks, or to the MF being associated with the written form. The institutional discourse (where the task took place) may have also influenced her speech. It is also possible that the participant felt that she is being judged and evaluated in Spanish classes and she wished to represent her knowledge differently. In sum, excerpts (16) to (18) exemplify commentary on the theme of formality and reveal assumptions about the relationship between the use of different verb forms in different contexts.

5.2.2.5. Participants' narratives on the theme of translation

The next excerpts exemplify comments made regarding the theme of translation. Note that the theme of translation only emerged in the L2 narratives at the lowest

proficiency level examined in this study (i.e., IM) and the HS narratives of the highest proficiency levels (i.e., IH and ADV). First, we examine an excerpt by an L2 learner. To respond to the question asking about the factors that influence the way she expresses futurity in Spanish, an L2-IM participant commented:

(19) L2-8-IM. *If I am talking about plans or things that I (or someone else) am "going to do", then I would use the future tense of ir+ infinitive. If I am talking about the state that something "will be" in, I would use just the future tense of that verb.*

In excerpt (19) the L2 learner explains that she uses the PF in contexts where she would use "going to + inf" in English, and the MF in contexts where she would use "will + inf" in English. This comment exemplifies that this learner has established equivalents in English and Spanish, and relies on English to determine which verb form to use when expressing futurity in Spanish. The next excerpt presents the commentary from a HS:

(20) HS-2-IH. *Cuando hablo en espanol, tengo que pensar en lo que quiero decir. Es decir, si quiero decir "I want to like cheese", tengo que decir "me gustaria tener el apetito para queso". Tengo que pensar doble porque lo tengo que decir en espanol e ingles. Yo uso todas las palabras que conozco en espanol porque quiero tener una conversacion en una idioma solamente [sic].*

'When I speak in Spanish, I have to think about what I want to say. That is, if I want to say "I want to like cheese", I have to say "I would like to have the appetite for cheese". I have to think double because I have to say it In Spanish and English. I use all the words I know in Spanish because I want to have a conversation in only one language.'

This HS notes that she has to translate from English into Spanish when speaking in Spanish. She adds that, as a result, speaking in Spanish requires more effort for her than speaking in English. Interestingly, this participant demonstrates an awareness of code-switching as an automatic practice in her Spanish and explains that she wants to avoid code-switching. We observe that the HS's metalinguistic narrative in (20) differs from the L2 narrative in (19). Although both participants rely on translation when

expressing future time, they do so in different ways. The L2 learner maps the English future verb tenses to their equivalents in Spanish, whereas the HS was not specific and discussed translation as a more holistic phenomenon in her language practice.

5.2.2.6. Participants' narratives on other metalinguistic themes

We turn to examine the category that included the other themes that emerged in the metalinguistic narratives. Specifically, this section examines commentary regarding the topics of instructional effects, repetition, and the perceived lack of differences between the verb tenses. We begin the analysis with two excerpts that illustrate the theme of instructional effects. First, in excerpt (21), an L2 learner comments on the contrast between the classroom and his study abroad experience in Spain:

(21) L2-10-IM. *What dictates my preference for using "Ir a" or the future conjugation is what people around me are using. I mainly used the future conjugations before my trip to Spain. During my summer abroad nobody really used it and switching between both methods of describing the future confused me. Since my roommate and friends all used "Ir a," I eventually changed and have been using mainly that method since.*

In this excerpt, the L2 learner describes an evolution regarding how he expresses future time in Spanish. Namely, this learner explains that he used to have a preference employ the MF when expressing futurity (when he was living in the US and taking Spanish classes at the university) and then switched to favoring the PF. He notes that this switch is a consequence of his study abroad experience in Spain. In other words, according to the Communication Accommodation Theory, he accommodates his speech to attune to his interlocutors (Giles, 1973). For example, this L2 learner explains that he tends to speak and use language similar to the people in his surroundings, and with regard to Spain, he observed that native speakers and his friends favored the use of the PF when

discussing future time. Thus, he started favoring the use of the PF as well, which also added ease to the manner in which he expressed futurity. This commentary speaks to the effects of instruction, the speech community input in second language acquisition, and accommodation.

Next, in excerpt (22), a HS discusses the effect of formal Spanish instruction on his knowledge of expression of futurity in Spanish:

(22) HS-7-IH. *Hablando del futuro, basicamente siempre uso ir + infinitivo. No creo que yo supiera de la estructura del tenso de futuro hasta que lo aprendi en escuela porque en mi casa siempre decimos "voy a.../vamos a...etc." Y yo pongo el tiempo/dia antes del verbo, por ejemplo: "Manana, voy a la tienda" [sic].*

This heritage speaker mentions that he had never heard of the MF until he started studying Spanish in school. The participant notes that at home they always use the PF when expressing future time. Thus, the input he was exposed to since he was a child consisted of the use of the PF. He also notes that he uses lexical temporal markers when expressing futurity. Interestingly, in the example, he provides he employs the PI and a temporal marker, which could be a sign of circumlocution. The use of the PI in this instance could also be due to the specific verb employed in the example. That is, since the verb "ir" is also used to form the PF, conjugating the verb "ir" in PF may have been considered repetitive. In sum, we find that excerpts (21) and (22) both reveal a similar phenomenon: Both participants encountered different input between the Spanish in the classroom and the Spanish spoken by native speakers (whether in a study abroad setting or at home).

We now turn our attention to the theme of repetition, another theme that is included in the "other" category in the analysis of the metalinguistic narratives. In the

next excerpt, an L2-IM speaker writes about the verb forms she employs to discuss future events in Spanish:

(23) L2-43-IM. *Cuando estoy hablando sobre el futuro en español, quiero tratar usar el tenso futuro porque es mas dificl para mi que "voy+a+infinitivo." Usar el subjuntivo porque muchas veces, no sabe mis planes pues tengo duda y necesito usar el subjuntivo ... Sin embargo, es buena que usar los dos tipos de expresar el futuro porque variacion en la estructura de las frases es muy buena [sic].*

'When I am talking about the future in Spanish, I want to try to use the future tense because it is more difficult for me than "voy+a+infinitive". Using the subjunctive because often I don't know my plans, I have a doubt and need to use the subjunctive ... However, it is a good idea to use the two types of verbs to express futurity because variation in sentence structure is very good.'

In (23), the L2 learner comments that she uses the MF, the PF, and the subjunctive to talk about the future in Spanish. Further, this speaker explains that she perceives that the MF presents a higher level of difficulty than the PF, and that she associates the subjunctive with uncertainty and doubt. Interestingly, she ends her narrative explaining that using different verb forms is better than using only one because that makes language more varied, which is preferable in this learners' view. This comment on variety may be due to feedback received in Spanish class, recommending that she avoids the repetition of the same sentence structures. Also on the theme of repetition, another L2-IM noted:

(24) L2-6-IM. *... Also, whenever I choose a verb or certain words to use, I tend to base it off the what words were used in the question that was previously asked just because it is easier for me to make the sentence in my head [sic].*

Excerpt (24) reveals that this L2 learner relies on the verb form used in the question when she produces an answer in Spanish. Therefore, we find priming effects, since the student tends to reuse the verb form that she has recently encountered in discourse. The participant explains that this strategy makes it easier for her to form the answer. Interestingly, the idea of the question priming the answer also appeared in the

narratives of the HSs of the study. In sum, we find that (23) and (24) provide different perspectives on the theme of repetition. In (23), repetition is perceived as something to avoid, while in (24) repetition is used as a tool or strategy that contributes to the conversation.

To finalize the analysis on the themes that emerged in the "other" category in the metalinguistic narratives, we focus on participants' perceived lack of differences between the verb forms employed to express futurity in Spanish. Strikingly, none of the participants of the study explicitly mentioned not understanding the differences between the possible future verb forms. This finding contrasts with the results of the metalinguistic variation task (5.1.), which revealed that several participants were not able to accurately recognize variation regarding the expression of futurity. This difference in results is suggestive of a task effect and highlights the importance of employing different tasks to obtain a comprehensive understanding of a linguistic phenomenon.

The last excerpt to be examined in the qualitative analysis of the metalinguistic theme discusses the differences between the future verb forms in Spanish. When asked about the factors that influence the manner in which he expresses futurity in Spanish, an L2 learner wrote:

(25) L2-1-IM. *When talking about the future, the decision in which form to use definitely depends on the context of the situation. Factors that come in to play include who you are talking to, what you are talking about, and how far in the future the conversation is. In the near future, I would probably use the 'voy a ____' form to discuss what I am going to do this weekend or this afternoon. When I am definite about my plans I will use the conjugations for the future tense. Lastly, when imaging future events 10-20 years from now I would use the conditional tense because I would not know exactly what would occur. Overall, in the moment I think a mix of all of these tenses is used to discuss the future. All essentially provide the same meaning and when talking to someone, no matter which tense you use, they will get an understanding of what you are talking about.*

The narration in (25) demonstrates that this L2 learner understands that several verb forms can be used to express future time. In his narrative, the speaker notes that factors such as temporal distance and certainty constrain expression of futurity. However, the comment in (25) suggests that he is also aware that these constraints (e.g., using the PF to refer to events or actions in the near future) are not categorical. Therefore, using one form or another will generally not result in a conversational breakdown, as they all can be employed to refer to future time. That is, this L2 learner is aware that the expression of futurity is a linguistic variable that can be expressed using different verb forms.

In sum, the qualitative analysis of the themes invoked by the participants of the study revealed more nuanced differences between the L2 learners and the HSs than the trends depicted in Figure 5-3. Perhaps the most noteworthy finding is that, although L2ers and HSs invoked mostly the same themes, they approached the themes from slightly different angles, or provided different perspectives in detailing their answers. For example, in the narratives on the theme of difficulty, we found that both groups favored the use of the PF (often compared to the MF) because it is perceived as a form that is easier to produce. However, we also found that the L2 learners provided a more detailed explanation of why, whereas HSs resorted to intuition to explain their choices. These findings point to the fact that where participants used and learned Spanish played an important role in the acquisition process. While both the L2 learners and the HSs of the study received instruction in Spanish, there are differences in the input they received and in the setting where they acquired the language (i.e., the home vs. school), which shaped their metalinguistic awareness.

5.3. Summary of key findings: Metalinguistic awareness

The previous sections have presented the results of the quantitative and qualitative analyses regarding the metalinguistic awareness of intermediate-mid, intermediate-high, and advanced L2 learners and heritage speakers. Recall that the goal of examining metalinguistic awareness was to tap into participants' explicit knowledge of expression of futurity to triangulate the spontaneous speech data generated by the interview protocol.

In sum, to respond to RQ3, which inquired about the relationship between the production of future time forms and metalinguistic awareness, key findings can be summarized as the following:

1. The metalinguistic awareness questionnaire revealed that L2 learners and HSs possess different types of metalinguistic awareness. For example, in the variation task, L2 learners (especially at the advanced proficiency level) were better able to identify and explain variation regarding the use of future verb forms in Spanish than their HS counterparts. We can hypothesize that this result is possibly due to L2 learners having received explicit instruction in Spanish since they began acquiring the language. In contrast, HSs acquired Spanish in the home setting, a naturalistic setting.

2. We also found differences between the L2 learners and the HSs in the metalinguistic narratives, narratives in which participants explained how they thought they expressed futurity and discussed the factors that influenced their choices. For instance, there were differences between the two participant groups with regards to the themes they favored in their metalinguistic narratives. L2 learners focused on the role of difficulty level and constraints such as certainty. Heritage speakers, however, highlighted

that they often rely on intuition when they express futurity in Spanish, possibly because of the key role that naturalistic input has played in their acquisition of Spanish. Further, we found that L2ers and HSs approached the themes from slightly different angles, offering different explanations, and/or providing a different level of detailing in their answers. In other words, we find differences between the L2ers and the HSs both in the interview protocol and in their metalinguistic narratives.

3. A comparison between the results of the variation task and the results of the production task (i.e., the interview protocol) revealed task effects. For example, the PF was the preferred form by L2 learners and HSs in both the narratives and the interview. However, there was an overrepresentation of the MF in participants' narratives, especially in the L2 group. Thus, we find differences between participants' spontaneous speech and their explicit knowledge of the expression of futurity.

The previous sections have addressed RQ3, which focused on the relationship between the production of future verb forms and the metalinguistic awareness of L2 learners and HSs of three proficiency levels. The metalinguistic findings revealed that overall L2 learners exhibited a more formalized way of explaining their choices based on textbook or instructional-related matter, while the HSs relied on intuition to explain their choices. In addition, we found that the results of the metalinguistic questionnaire did not always align with the results of the spontaneous speech in the interview protocol, which speaks to the importance of employing different tasks. To further elucidate the data, Chapter 7 presents an extensive discussion of the results of the study in the context of the previous research.

CHAPTER 6: SUMMARY

This dissertation set out to examine how L2 learners and heritage speakers across three proficiency levels (i.e., IM, IH, and ADV) express futurity in Spanish. Specifically, the research questions that guided the study were:

RQ1. How do the developmental patterns of the expression of futurity compare in Spanish L2 learners and heritage speakers of different proficiency levels?

RQ2.a. What linguistic constraints (temporal distance, temporal adverbials, clause type, semantic type of verb, and markers of certainty) condition the use of future verb forms in L2 learners and HSs?

RQ2.b. What external constraints (exposure to Spanish dialect, formal education in Spanish, gender, and age) condition the use of future verb forms in L2 learners and HSs?

RQ3. What is the relationship between the production of future time forms and the metalinguistic awareness of L2 learners and HSs?

To address these issues, the present study adopted a mixed-methods approach, quantitatively and qualitatively examining L2 learners' and HSs' expression of futurity through the use of multiple protocols: An interview protocol, a preference task, a metalinguistic awareness questionnaire, and a language background questionnaire. Recall that this study used a functionalist approach, examining all verb forms issued in future time contexts. In what follows, I answer the three research questions presented above, summarizing the major findings uncovered in the protocols.

6.1. Developmental patterns of expression of futurity

The first research question of the study examined the possible differences in the developmental patterns of the expression of futurity in Spanish L2 learners and heritage speakers of different proficiency levels (i.e., IM, IH, or ADV). This question was addressed by the interview protocol (Appendix A). In general, both the L2 and the HS groups produced high frequencies of the PF, LF, and PI, and lower frequencies of the MF, subjunctive, conditional, and other verbs (mainly non-inflected verbs and present progressive). Given the task at hand, these findings are representative of participants' spontaneous speech, which reveal a diversity of verb forms used by each of the participant groups. The evidence of a wide range of expressions of futurity attests to the importance of adopting a functionalist framework of analysis to fully comprehend L2 and heritage speakers' linguistic systems and their development. This finding will be further addressed in the discussion chapter (Chapter 7), alongside the triangulated findings.

Although L2ers and HSs employed a wide range of expressions to convey futurity, overall the participants of the study showed a preference to use the PF to express futurity in the interview protocol. However, a closer look at the distribution of verb forms revealed differences between proficiency levels. Specifically, the advanced and intermediate-high L2 learners and the advanced and intermediate-high HSs favored the PF, approximating monolingual native speakers. Meanwhile, the intermediate-mid L2 learners and the intermediate-mid HSs employed the LF and the PI more often, possibly because these verb forms are acquired earlier. In other words, we find a developmental pattern in which the lower proficiency speakers relied more on the LF and the PI to express futurity, while the more advanced speakers favored the PF.

Another developmental pattern was found in the distribution of more complex verbal morphology, namely the use of the subjunctive and conditional verb forms, which was greater among the more advanced participants. While speakers produced a low number of tokens using these verb forms, they are suggestive of a developmental trend in both the L2 and HS groups.

In addition to the differences between proficiency levels described above, the data from the interview protocol also revealed differences between speaker groups. In particular, L2 learners employed the MF more than twice as frequently as their HS counterparts. Furthermore, the developmental pattern of the MF was found to be u-shaped (i.e., non-linear) in the L2 group, while the HSs employed the MF in low frequencies across proficiency levels. It is hypothesized that these phenomena may be occurring due to the overrepresentation of the MF in the Spanish L2 instruction.

Thus, to answer RQ1, we found similarities and differences in the developmental patterns of L2 learners and HSs: Comparisons suggest that both the proficiency level and the context of acquisition of a language (i.e., type of speaker: L2er or HS) influence the expression of futurity.

6.2. Constraints that condition the expression of futurity

The second research question of the study inquired about the linguistic constraints conditioning the expression of futurity in L2 learners and HSs. Data were drawn from the interview protocol (Appendix A) and the Preference Task (Appendix C) to answer this research question. Regarding linguistic constraints, overall the Chi-Square tests revealed that temporal distance, temporal adverbials, clause type, semantic type of verb, and

markers of certainty conditioned the verb forms employed by participants to express futurity in Spanish. For example, for the constraint of temporal distance, participants overall used the PF to express futurity across temporal distances. However, participants showed a mild preference to use the LF to express futurity in contexts referring to the distant future (i.e., a few months from now to ten years into the future).

To further elucidate the findings regarding linguistic constraints, a multinomial logistic regression was run to determine which linguistic constraints predict verb form use at each proficiency level for each speaker group, as well as the statistical weight of the predictions. The data revealed that temporal distance and semantic type of verb seemed to be the predictors that uniformly contributed to the models for all participant groups. In other words, L2 and HS participants of all levels employed different future verb forms depending on the temporal distance they were referring to and on the lexical meaning of the verb they were using to express futurity. Other linguistic constraints such as markers of certainty and temporal adverbials were only found to significantly contribute to the model for certain proficiency levels. That is, we found developmental patterns with regards to the effect that certain constraints had on the expression of futurity in Spanish. For instance, the constraint of markers of certainty was not a significant predictor in the L2-IM and HS-IM groups (the lowest proficiency groups), which can be taken to suggest that the constraint regarding certainty is acquired later.

Furthermore, the study revealed differences between speaker groups. Overall, more constraints were significant predictors in the models explaining variance for the L2 learners than for the HSs. In other words, the linguistic constraints better explained L2 behavior than HS behavior in the interview protocol. Again, we hypothesized that this

result might be due to instructional effects, since L2 learners acquired Spanish in a context in which there was often explicit instruction involved, which could have included information regarding the constraints that condition the use of future verb forms.

In sum, we have explained that several linguistic constraints contributed to the variance in the expression of futurity in L2 learners and HSs, although not all constraints carry the same explanatory power.

The second part of RQ2 inquired about the external constraints that conditioned the use of futurity by the participants of the study. Data from the interview protocol and the language background questionnaire were used to answer this question. Chi-Square tests showed that exposure to a specific dialect of Spanish, the number of years of education of Spanish, and the gender of participants conditioned the distribution of the verb forms that participants used to express futurity in the interview protocol. Regarding the constraint of exposure to Spanish dialect, the study revealed that while speakers of all dialects favored the PF to express futurity, participants exposed to the dialects of the Caribbean, Mexico and Central America, and South America were more similar in their expression of futurity than those who reported exposure to the dialect in Spain. In particular, HSs exposed to the dialects in the Caribbean, Mexico and Central America, and South America used the PF, LF, and PI more frequently than participants exposed to Peninsular Spanish, who produced higher frequencies of the MF, subjunctive, and conditional in their answers to the interview protocol.

The gender of participants also conditioned the future verb forms employed by participants in the interview protocol. That is, male and female speakers expressed futurity differently, exhibiting different patterns with regards to future verb form use.

Interestingly, the patterns were different among the L2 and HS groups. For instance, while male L2 speakers produced the PF more frequently than their female counterparts, the opposite trend was found in the HS group. Further, we observed that the female participants in the HS group favored the PF and the LF, which could be taken to suggest that the use of these forms is on the rise since women have been noted to be the innovators in language change (Chambers, 1995). Finally, the number of years of formal education in Spanish that participants had received slightly conditioned the expression of futurity in the L2 and HS groups. In sum, acquisitional and social constraints were found to condition the expression of futurity by L2 learners and HSs in the current study.

6.3. Metalinguistic awareness regarding the expression of futurity

The third research question of the study focused on the relationship between participants' metalinguistic knowledge and their expression of futurity in Spanish. This question was addressed by the analysis of the results of the metalinguistic awareness questionnaire (Appendix D), which consisted of a variation task and metalinguistic narratives. The quantitative and qualitative analyses of the metalinguistic protocol, presented in Chapter 5, yielded several noteworthy findings. The most important finding revealed that there were differences between L2 learners and HSs with regards to metalinguistic awareness, both in the identification of variation and in the explanation of their choices regarding the expression of futurity. The L2 learners of the study could identify and explain variation regarding future time expression, possibly due to having received explicit instruction in Spanish since they began acquiring the language. HSs, on the other hand, did not rely on prescriptive knowledge when completing the variation

task, possibly due to their exposure to natural input and less reliance on metalinguistic knowledge.

Participants' metalinguistic narratives further illustrated differences between the groups. Each group focused on different themes when explaining their choices regarding the expression of futurity in Spanish. In their narratives, L2 learners focused on the role of difficulty and on factors such as certainty and temporal distance. Heritage speakers, however, highlighted that they often rely on intuition when they express futurity in Spanish. It was noted throughout the qualitative analysis that, although L2 learners and HSs discussed the same themes, they approached the themes from slightly different angles, and often provided different degrees of detail in their responses.

Furthermore, a triangulation of the metalinguistic data with production data from the interview protocol revealed differences between participants' narratives and their actual spontaneous speech in their responses to the interview protocol. This finding can be substantiated by the overrepresentation of the MF in the metalinguistic narratives compared to the interview protocol (especially in the L2 group). In other words, the study uncovered differences between spontaneous speech and explicit knowledge, which I attribute to task effects.

Thus, the analysis of the metalinguistic awareness questionnaire tapped into participants' explicit knowledge of expression of futurity and triangulated production data generated by the interview protocol. The study revealed metalinguistic differences between the L2 learners and the HSs that highlight the role of age and context of language acquisition (i.e., explicit instruction vs. natural input). The study also highlighted differences between spontaneous speech and explicit linguistic knowledge.

This chapter has summarized the main findings of the dissertation by answering the three research questions of the study. The next chapter presents an extensive discussion of the findings in light of the previous literature.

CHAPTER 7: DISCUSSION

In the previous chapters, I reported the results of three tasks (i.e., interview protocol, preference task, and metalinguistic awareness questionnaire) which were employed with the purpose of examining how L2 learners and HSs of three proficiency levels express futurity in Spanish.

One of the goals of this study was to uncover the developmental patterns concerning how these participants expressed future time. Although the periphrastic future (PF) was the preferred form overall, we found that higher proficiency L2 and HS participants used this form more frequently while their lower proficiency counterparts favored the present indicative (PI) and lexical future (LF) in future time contexts.

The second goal of the study was to uncover the linguistic and social constraints that conditioned the expression of futurity in Spanish. Based on the facts presented here, there is evidence that points to the following linguistic constraints mediating the verb forms employed by L2 and HS participants to express futurity in Spanish: Temporal distance, temporal adverbials, clause type, semantic type of verb, and markers of certainty. When examining the social constraints, I found that exposure to a specific dialect of Spanish, the number of years of education of Spanish, and the gender of participants were also statistically significant in determining the use of verb forms to express futurity, particularly in the interview protocol.

The final goal of the study was to explore L2 learners and HSs' metalinguistic awareness regarding the expression of futurity. The analysis of the metalinguistic questionnaire yielded differences between L2 learners and HSs both in the participants' awareness of variation in the expression of futurity in Spanish, and in the explanation of

their choices of verb forms employed to discuss future events. In addition, the triangulation of the metalinguistic data and the production data generated by the interview protocol revealed task effects.

In this chapter I discuss the findings of the dissertation in relation to the existing literature, addressing implications and highlighting how this research speaks to the field of language variation and SLA. Based on the most salient findings of the study, I will discuss contributions related to the importance of using the functionalist approach, grammaticalization, second and heritage language acquisition, and pedagogical implications.

Before discussing the aspect of the functionalist approach and how it contributed to obtaining a comprehensive picture of participants' expression of futurity, I must mention that using spontaneous naturalistic speech was critical to the findings of this study. One of the strengths of the present investigation is that it was the first study to employ an oral interview protocol for eliciting L2 and HS production data on future time in Spanish. We believe that eliciting spontaneous speech allowed us to obtain as naturalistic speech as possible, representative of spontaneous responses and thus capture participants' preferences and interlanguage.

By blending spontaneous naturalistic speech and the functionalist approach (e.g., Bardovi-Harlig, 2007; Kanwit, 2014; von Stutterheim and Klein, 1987), this dissertation revealed that the L2 and HS participants employed a wide range of verb forms to express futurity both in the interview protocol and in the metalinguistic questionnaire. In general, the L2 learners and HSs employed a similar repertoire of forms in the interview protocol (i.e., the production task). Participants produced high frequencies of the PF, LF, and PI,

and lower frequencies of the MF, subjunctive, conditional, and other verbs (mainly non-inflected verbs and present progressive). In other words, participants employed multiple forms to express events in the future, which suggests that they have developed multifunctionality in Spanish (Andersen, 1984). These findings echo Kanwit (2014) who found that Spanish NSs and L2 learners employed twelve different verb forms to express futurity in a PowerPoint-guided oral prompt response activity. Also using the functionalist approach, Edmonds, Gudmestad, and Donaldson (2017) found that native speakers and advanced L2 learners of French employed thirteen finite-verb forms in future time contexts in informal conversations.

Triangulation of the data from the present study revealed that the findings from the interview protocol were substantiated by the results of the metalinguistic awareness questionnaire. While both L2 learners and HSs relied on the PF and the MF in their metalinguistic narratives, L2 learners alluded to employing up to seven verb forms to express futurity in Spanish, and HSs also mentioned using the LF and the conditional in future time contexts. Taken together, the results of the interview protocol and the metalinguistic questionnaire reveal that “future expressions” are not to be considered two ways of saying the same thing (Labov, 1972). That is, the reliance on other forms such as the LF and the subjunctive in the protocols show that speakers have multiple ways of conveying futurity in instances related to immediate and distant events. The evidence of a wide range of expressions of futurity in the present study attests to the importance of adopting a functionalist framework of analysis to fully comprehend L2 learners’ and HSs’ linguistic systems and their development. Without adopting a functionalist

approach, it would not have been possible to capture a comprehensive picture of the expression of futurity.

Concerning the importance of blending the sociolinguistic study with a functionalist approach, a remarkable finding the study yielded is how the diversity of forms employed by the participants of the study contrast with the existing literature on the expression of futurity by monolingual native speakers (NS) of Spanish (e.g., Gutiérrez, 1995; Orozco, 2004, 2007; Sedano, 1994; Silva-Corvalán and Terrell, 1989). Although several scholars had noted that expressing futurity in Spanish encompasses more than the canonical forms of MF and PF (i.e., Gutiérrez, 1995; Moreno de Alba, 1970; Silva-Corvalán and Terrell, 1989), traditionally studies have focused on the analysis of the PF and the MF, and to a lesser degree have examined the PI. Studies have not adopted a functionalist, concept-oriented approach (e.g., Bardovi-Harlig, 2007, 2017; von Stutterheim and Klein, 1987) when analyzing how speakers express this linguistic function. Interestingly, in the present study, we find that the PF and the MF, that is, the verb forms that had been traditionally examined in the literature on monolingual NSs, only account for slightly over a third of expressions of futurity in the corpus. In other words, the participants only employed the PF or the MF in slightly more than a third of future time expressions. If we include the PI, we find that the three verb forms that had been most frequently examined in the literature (i.e., PF, MF, and PI) only account for slightly above half of participants' expressions of futurity in the interview.

The results of the metalinguistic task also showed that, although L2 learners and HSs strongly favored alluding to the PF and the MF in their metalinguistic narratives, they were aware that they employed other verb forms (e.g., PI and LF) to express

futurity. Therefore, the findings gathered from the present study suggest that the perspectives traditionally employed in sociolinguistics to examine how monolingual native speakers express futurity (e.g., expression of futurity as a bipartite linguistic variable using the MF and the PF or two ways of saying the same thing) may have been too narrow. Thus, subsequent studies on language use could benefit from opening the conversation on what really encompasses expression of futurity.

As mentioned above, the use of a functionalist approach allowed the present study to unveil the wide range of verb forms employed by L2 learners and HSs in future time contexts. Participants overall produced high frequencies of the PF, LF, and PI in the interview protocol, and lower frequencies of the MF, subjunctive, conditional, and other verbs. As detailed in Chapter 3, the category “other verb forms” (e.g., present progressive) was created to include verb forms that appeared with lower frequency in the corpus. Interestingly, the triangulation of the data revealed that participants seldom alluded to verb forms in the “other” category in their metalinguistic narratives (i.e., task effects were found). Still, it is relevant to discuss verbs in the “other” category since, to my knowledge, these verbs had not previously been analyzed in the literature on the expression of futurity in Spanish. Specifically, HSs in this study employed other verb forms more frequently than L2 learners in the interview protocol. In what follows, I will discuss the use of the two most frequent future verb forms found in the “other” category (i.e., non-inflected verbs and present progressive) in the context of the existing literature.

In the present study, both L2 learners and HSs employed non-inflected verbs to convey futurity in the interview protocol (e.g., to express their plans for that evening). The possible rationale for using non-inflected verbs (e.g., *estudiar* ‘to study’) in future

contexts are: First, this linguistic phenomenon could represent a strategy of simplification employed by the participants. In the case of L2 learners, tense marking is known to be problematic even for advanced instructed learners (e.g., O’Grady, 2006). Since future forms like the MF and to a lesser extent the PF involve the conjugation of verbs, L2 learners may opt to avoid or circumvent conjugating all together and may resort to non-inflected verbs to express the meaning of the action or events they want to convey. Regarding HSs, the use of non-inflected verbs may also be a strategy they use to circumlocute conjugation as well. The use of non-inflected verbs by HSs could also be explained as the simplification of their grammatical system due to bilinguals developing strategies to lighten the cognitive load of using two linguistic systems in situations of intense language contact (Silva-Corvalán, 1994). It is important to note that the interview was an oral protocol where participants did not have time to pause and explicitly think about conjugating verbs and thus relied on their more implicit language knowledge (e.g., Ellis, 2005; Kuiken and Vedder, 2012). Therefore, the frequency of use of non-inflected verbs by the L2ers and HSs of this study may have been higher than it would have been if participants had completed a task that had a written format, for example, a task that would have allowed them to plan a response.

I would also like to draw our attention to how participants employed non-inflected verbs to convey modality in the interview protocol. When L2 learners and HSs produced non-inflected verbs with (un-)certainty markers, they favored their expression with markers of low and mid certainty (most frequently *de pronto* “possibly” in the HS group). That is, the data suggest that participants frequently employed non-inflected verbs to express uncertainty regarding the near future (e.g., plans for that evening) and the distant

future (e.g., plans in ten years). Although the following finding falls outside the scope of my dissertation, I also found that L2 learners occasionally employed prosodic cues to convey uncertainty when using non-inflected verbs. Specifically, participants used a rising pitch when pronouncing the non-inflected verbs in declarative sentences expressing future time. This change in intonation is known as up-stepping and has been found to signal uncertainty in speech in English and Spanish (Cabedo Nebot, 2016; Jimenez, 2018; Ward and Hirschberg, 1985; Yang and Esposito, 2000).

Another pattern that emerged regarding the use of non-inflected forms and uncertainty was that participants showed a tendency to provide little or no information when they expressed futurity using infinitives (e.g., using only a non-inflected verb as their answer such as *trabajar* ‘to work’). By providing minimal information, participants violated Grice’s maxim of quantity, which establishes that speakers should be as informative as they can. It is possible that participants did not have specific plans and employed brief answers to provide enough information to keep the conversation active. In addition, the protocol itself was an interview in which participants responded to questions, and that may have mediated their use of short responses. Overall, it seems that participants used lexical, discursive, and prosodic devices to convey uncertainty when expressing futurity using non-inflected verbs because they had no assurance of what they may be doing while projecting future events.

Finally, the use of non-inflected verbs by the HS participants could be related to dialectology. The data revealed that HS participants exposed to the dialects in Mexico and Central America, the Caribbean, and South America tended to use non-inflected verbs when discussing future events. In contrast, participants exposed to the dialect in

Spain did not tend to express non-inflected verbs with this purpose in the interview. That is, it is plausible that the use of non-inflected verbs by HSs is characteristic of certain dialects, which may reflect trends in monolingual or bilingual Spanish varieties. However, to my knowledge, no study has examined the use of non-inflected verbs in future contexts by native speakers of Spanish. Thus, this observation is made with caution.

The functionalist analysis of the present study also revealed that L2 and HS participants employed the present progressive (PP) to express futurity. In Spanish, the PP is formed by conjugating the verb *estar* ‘to be’ and adding the present participle of the verb (e.g., *estoy tomando clases*. ‘I am taking classes.’). Two different phenomena could explain participants' use of the PP to express futurity in Spanish. On the one hand, the use of the PP in future contexts could be due to transfer from English. In English, it is acceptable to use the PP in future time contexts associated with plans, arrangements, or schedules (Torres Cacoullos and Walker, 2009). In contrast, the PP is not used to express futurity in Spanish (Alonso García, 2003; Whitley, 2002). For instance, regarding the possible transfer from English into Spanish, Perez-Cortes (2012) investigated whether L2 learners and HSs generalized the feature [\pm future] present in the English progressive when interpreting the Spanish tense. In her study, Perez-Cortes found that both L2 learners and HSs occasionally allowed future interpretations for present progressive in Spanish. That is, the Spanish PP may have obtained a future time interpretation due to cross-linguistic influence from English.

On the other hand, as Cuza and López Otero (2016) point out, the present progressive can have immediate future readings in some Latin American Spanish

varieties (e.g., Aponte Alequín and Ortiz López, 2010; Cortés-Torres, 2005; Torres Cacoullós, 2000). Thus, if the participants of the present study were exposed to these varieties of Spanish, it is possible that their use of the PP in future time contexts is not as a result of cross-linguistic influence but a result of being exposed to Spanish varieties in which the progressive form is employed with futurate meaning (e.g., Caribbean Spanish, but not Peninsular Spanish for example). This suggestion is difficult to ascertain in the L2 learner group since L2 learners are typically exposed to a myriad of Spanish varieties through their Spanish learning career. In the case of the HSs of this study, a closer look at the data from the language background questionnaire revealed that the HSs that employed the present progressive to express futurity had been exposed to the dialects of Mexico and Central America, the Caribbean, or South America. However, no instances of PP in future time contexts were found in the responses produced by the HSs with exposure to the Peninsular Spanish variety. Therefore, it is plausible that the HS participants' use of the PP is due to input and not to transfer from English.

Lastly, it is interesting to examine whether the PP indicates modality (e.g., high or low certainty) in the HS and the L2 groups of the present study. Since the majority of expressions of futurity using the PP did not include (un-)certainty markers, it was necessary to take a closer look at the contexts in which participants employed the PP. The data from the interview protocol revealed that the L2 learners of this study employed the PP in future contexts of low-, mid-, and high certainty. That is, the PP was employed in all certainty-related contexts. In contrast, and regarding the HS participants, the data revealed that the utterances that included the PP were mostly produced expressing certainty. Specifically, it seems that the HSs employed the PP to express plans,

arrangements, and sometimes schedules (e.g., homework schedule, or academic plans for the next semester). Thus, the use of the PP was more restricted in the HS group, which can be taken to suggest that the HSs use the PP to express modality.

Another important aspect that this study uncovered is grammaticalization. The term grammaticalization is attributed to Meillet (1912) and refers to the process by which a linguistic form gradually loses its original meaning and acquires a new one (Bybee, Perkins, and Pagliuca, 1994). That is, grammar is dynamic and everchanging (Hopper, 1991), and the realm of future has been particularly susceptible to change (Cartagena, 1995). According to the usage-based approach, the language change in grammaticalization happens when frequent routinizations of language use become conventionalized (Aaron, 2006; Bybee, 2006, 2011), and phenomena like semantic bleaching or syntactic generalization contribute to this rise in the use of forms with a new meaning.

In the present study, the PF was the preferred form overall to express futurity by the L2 learners and HSs in the interview protocol and in the metalinguistic narratives. This tendency to favor the PF echoed monolingual behavior throughout the Spanish-speaking world (e.g., Gutiérrez, 1995; Orozco, 2007, 2018; Porcel, 2005; Sedano, 1994; Silva-Corvalán and Terrell, 1989). Before reaching this stage, the PF underwent a process of grammaticalization. The PF is compounded of the present indicative of the verb *ir* ‘to go’, the preposition *a* ‘to’, and an infinitive (e.g., *voy a comer*. ‘I am going to eat.’). This structure initially denoted movement or a path toward a goal (Bybee et al., 1994). That is, the PF denoted movement in physical space before it developed into expressing

movement in time (e.g., Aaron, 2006), possibly because saying that one is going somewhere implies the intention of doing something.

Regarding grammaticalization, Jaque (2017) proposes that the main factor that determines the changes in the verbs that are favored to express futurity in Spanish is related to the two ways of temporal cognition: Symbolical temporal cognition prioritizes location of events and intervals in time. In contrast, phenomenological temporal cognition highlights the present experience. The more a verb form approaches the symbolic meaning, the more it grammaticalizes to express futurity. Jaque (2017, p. 222) points out that the PF has grammaticalized in Spanish and can be considered symbolic future. However, the LF still conveys a modal meaning and is considered to express mainly phenomenological future. Jaque (2017) explores how a high degree of grammaticalization of periphrastic forms (like the PF) can bring along a process of grammaticalization for other periphrastic constructions that can be good candidates to express futurity (e.g., LF). The findings of the present study seem to support Jaque's theory, since one of the striking patterns found by adopting the functionalist approach was participants' frequent use of the LF in the interview protocol.

The LF was the second most used form by participants in future time contexts after the PF (the most used form). In the metalinguistic awareness protocol several participants also alluded to using the LF to express futurity. In other words, participants used the LF to discuss events and states that are posterior to the moment of speech (Comrie, 1976, 1985; Reichenbach, 2005). Further, the results of the preference task revealed that participants tended to select the LF (which has no future tense morphology) in sentences with no temporal adverbials. Thus, the triangulated data in this study support

the hypothesis that there seems to be a process of grammaticalization regarding the LF, which could be linked to the grammaticalization of the PF (modals as futures).

The review of the literature (Chapter 2) explained that futurity is not only temporal but also encompasses modality (e.g., Bardovi-Harlig, 2017; Dahl, 1985; Jaque, 2012). The high frequency of use of the LF by the participants of the present study illustrates the inherent modality in the expression of futurity. According to Bybee et al. (1994), before expressing futurity, verb forms go through an intermediate stage expressing intention. That is, verbs that have a lexical meaning of obligation, volition or movement go through a stage of expressing intention before reaching the final stage in which they express futurity (prediction). Bybee et al. (1994) note that this phenomenon first arises in the first person singular. This proposal aligns with the data from this dissertation, in which participants mostly talked about themselves (i.e., first person singular). For example, when asked about his plans after graduation, an L2-ADV participant answered *Quiero mudarme a Philadelphia, Nueva York o Texas*. ‘I want to move to Philadelphia, New York or Texas’. The previous response employing the LF was representative of the answers of other participants, and it is reasonable to infer that the L2-ADV participant intends to do what he expressed. Thus, Bybee et al. (1994) hypothesize that when speakers frequently employ structures like *quiero ir* ‘I want to go’ (modal + infinitive) to express intention in future time contexts, the modal verb acquires a temporal connotation of futurity. That is, the desire function precedes the intention function of the modal. The authors represent the pathway from modal source to futurity as follows:

Desire>Willingness>Intention>Prediction.

Overall, the data of the present study suggest that the LF seems to be in the first stages of grammaticalization in Spanish, since the meaning of the LF involves intention but does not seem to involve prediction yet.

Based on the findings of this study, we can hypothesize that the frequency of use of the LF and the PI will continue to increase in the Spanish spoken by HSs in the US. As the use of these verb forms increases, we can expect their meaning to shift from phenomenological cognition (highlighting the present) to symbolical temporal cognition (prioritizing the location of events in time). Similarly, following Bybee et al. (1994), we can expect that in later stages of grammaticalization the meaning of the LF will involve prediction and not just intention. As Jaque (2012) points out, the grammaticalization of verb forms is not isolated, and the increase in use of the LF and the PI in future contexts seems to go hand in hand with a continued decline of the use of MF in future contexts. Specifically, it appears that the use of the MF is being relegated to contexts in which it expresses epistemic modality (e.g., Fleischmann, 1982). In other words, the results of the present study lend further support to the proposal that the use of the MF in future contexts is being lost in US Spanish (e.g., Gómez Soler and de Prada Pérez, 2016).

Taking into consideration that changes in the meaning of verbs occur gradually, a diachronic study will be needed to track the development of this phenomenon in the future. Torres Cacoullos (2012) notes that the variationist method is well suited to examine grammaticalization, and we believe that the functionalist approach will be useful to track the evolution that seems to be taking place regarding the verb forms that speakers employ to express futurity.

Next, I would like to consider the results of the study in light of theories of second language acquisition. The first research question of the dissertation inquired about the developmental patterns of the expression of futurity in L2 learners and HSs. As detailed in the results chapter (Chapter 4), several developmental patterns were found regarding linguistic development.

First, the data revealed that lower proficiency speakers relied more on the LF and the PI to express futurity in the interview, while the more advanced speakers favored the PF. Interestingly, the most frequently employed forms used by the participants of the study (i.e., PF, LF, PI) were forms that are not morpho-syntactically complex for speakers. Taking into account theories of acquisition of tense-mood-aspect (TMA) (Bardovi-Harlig, 2000), we find that the participants of the study relied on the first and second stages of development, that is, the pragmatic and lexical stages, and they relied less on the third stage (the morphological stage) to express futurity. The fact that the L2-IM and HS-IM proficiency participants preferred the PI and LF while their more advanced counterparts favored the PF may have to do with the input they receive.

Remember that monolingual native speakers throughout the Spanish-speaking world have been found to increasingly prefer to use the PF to express futurity (e.g., Blas Arroyo, 2008; Claes and Ortiz López, 2011; Orozco, 2007, 2015; Sedano, 1994). Thus, L2-ADV, HS-ADV, L2-IH, and HS-IH favoring of the PF when expressing events in the future may be suggestive of them approximating monolingual native speakers of Spanish more than lower proficiency L2 learners and HSs. This finding aligns with literature on the acquisition of other linguistic variables. For example, Geeslin, Linford, and Fafulas (2015) found that the highest proficiency L2 learners in their study behaved similarly to

NSs in the selection of overt subject pronouns. To shed light on the aforementioned proficiency differences, Geeslin (2010) proposed that L2 learners simultaneously modify two characteristics of their developing grammars when they acquire variation regarding concepts or functions whose expression is variable. Specifically, regarding the expression of futurity, L2 learners modify the frequency with which they use each variant (e.g., PI and PF) and the constraints that affect the selection of these variants (i.e., linguistic and social constraints). Because of the complexity of acquiring the constraints above, variation is acquired late in the language acquisition process (Geeslin, 2011). Further, the present study found that HSs produced a higher rate of PF than the L2 group, which suggests that HSs are closer in their linguistic behavior to monolingual speakers, possibly because HSs receive naturalistic input from an early age (Montrul, 2012). This finding also is substantiated by previous studies which report that the preference for the PF is even more marked in the communities in the US where speakers are in contact with English (e.g., Orozco, 2004, 2007; Zentella, 1997). Notably, though, the developmental patterns regarding the use of the PF, PI, and LF were not replicated in participants' responses to the metalinguistic awareness questionnaire. That is, we found differences between the production of future verb form by L2ers and HSs and the cognitive associations they make regarding the use of these verb forms when expressing futurity.

The present study also unveiled a developmental pattern with regards to the distribution of more complex verbal morphology, namely the use of the subjunctive and conditional verb forms, which was greater among the more advanced participants. While speakers produced a low number of tokens using these verb forms, the use of the subjunctive and conditional to convey future is suggestive of a developmental trend in

both the L2 and HS groups. In addition, the conditional and subjunctive forms in future contexts also express modality, pointing to hypotheticals. Therefore, overall, advanced L2 and HS speakers showed a more nuanced way of expressing futurity, a finding that was replicated in the results of the metalinguistic awareness questionnaire.

The increase in the use of more complex morphology by the higher proficiency participants can be accounted for within the framework of morpho-syntactic development: As speakers' proficiency increases, they are able to incorporate morphologically complex verbs to express TMA in their discourse. More specifically, the present study contributes to our understanding of models of SLA. In order to test the Full Transfer/Full Access (FT/FA) hypothesis (Schwartz and Sprouse, 1996), we assumed that linguistic knowledge consists on associations between functional features, phonological features, and semantic features (e.g., Chomsky, 1995; Putnam and Sánchez, 2013). According to the FT/FA hypothesis, the initial state of L2 acquisition is the final state of L1 acquisition (Full Transfer). However, the results from the present study suggest that there seems to be a dissociation between functional and lexical features (i.e., their morphological expression) in second and heritage language acquisition. This dissociation is evidenced by second language learners experiencing difficulties with verbal inflection at the earlier stages of acquisition despite having acquired the abstract functional features. Therefore, the data of the present study does not align with the FT/FA hypothesis. Since the lower proficiency participants did not seem to have morphology readily available when expressing futurity, they relied on other strategies such as employing verbs in present tense, using non-inflected verbs, or using circumlocution as a compensatory device.

The previous section examined the LF in light of the grammaticalization process. Since the focus of the present study is on L2 learners and HSs, it is important to discuss the use of the LF specifically related to language development. I must note that the LF was the second most frequently produced expression of futurity by the participants of the study. Also, the use of the LF in future time contexts was more commonly expressed by intermediate L2 learners and HSs than by advanced participants. When I reexamined the data, it revealed another pattern regarding the use of the LF: Lower proficiency participants mostly relied on “quiero + inf” ‘I want + inf’ to express futurity. However, higher proficiency participants employed a wider variety of modal verbs such as “tengo que + inf” ‘I have to + inf’ or “me apetece + inf” ‘I have to + inf’. These observations resemble the findings of a study conducted by Bardovi-Harlig (2005) which examined the expression of futurity in L2 English. Bardovi-Harlig found that the use of the lexical future ranked second to the use of *will* in L2 English and that the LF emerges early in the L2 interlanguage (IL). As posited by Bardovi-Harlig (2005), lexical futures seem to play two roles in the IL development of the participants of the present study: To facilitate early expression of futurity and to bring modality to the L2 learners and HSs’ linguistic systems.

As detailed in Chapter 4, the distribution of participants’ use of future verb forms in the interview was significantly related to the linguistic constraints of temporal distance, temporal adverbials, clause type, semantic type of verb, and markers of certainty. Results of a logistic regression revealed that temporal distance and semantic type of verb were the constraints that consistently predicted the future verb forms that all

L2 and HS groups employed in the interview. In other words, these two constraints seem to be the ones that yielded a stronger effect in relation to the production data.

On the other hand, the metalinguistic analysis in Chapter 5 revealed the participants did not favor referring to temporal distance in their metalinguistic narratives. Still, L2 learners referred to this constraint more than HSs in their narratives, possibly because of having received explicit instruction in the classroom. Regarding the semantic type of verb, the L2 learners and HSs did not mention this constraint in their narratives. In other words, although temporal distance and semantic type of verb were the strongest predictors of expression of futurity in the interview protocol, participants did not favor these constraints in their metalinguistic narratives. Again, we find task differences between the interview and the metalinguistic questionnaire that could reveal differences in participants' implicit and explicit knowledge regarding the expression of futurity.

Further, remember that futurity always implies, at least to some degree, modality (e.g., Dahl, 1985; Nuyts, 2001; Palmer, 1986). Interestingly, the constraint of markers of certainty (which is related to modality) was not found to be a significant predictor in the regression in the L2-IM and HS-IM groups (the lowest proficiency groups) nor in the HS-IH group, which can be taken to suggest that this linguistic constraint is acquired later. Strikingly, both the results from the logistic regression of the responses to the interview and the results from the metalinguistic narratives suggest that L2 learners rely more on markers of certainty than HSs. While classroom instruction may have contributed to this phenomenon, it is possible that the analysis of the constraint of markers of certainty (which focused on lexical markers of certainty) was not able to fully account for the effects of (un-)certainty in participants' responses to the interview. For instance, the

analysis of markers of certainty did not systematically account for prosodic or discursive strategies that convey modality.

One of the surprising findings of the present study is that, as mentioned above, the developmental patterns of the expression of futurity were largely similar in the L2 and the HS groups. The analysis of the PT examining temporal markers did not identify speaker type (i.e., L2 vs. HS) as a predictor that correlated with performance either. The reason why these findings are striking is because L2 learners and HSs receive different input (Montrul, 2012) and have different language acquisition experiences in Spanish (i.e., home setting vs. school setting). Although we did find differences in the distribution of certain verb forms in the interview protocol (e.g., a higher use of the MF by L2 learners), the largest differences between groups were found in the answers to the metalinguistic awareness questionnaire. There are more qualitative differences that this study has not been able to fully uncover (e.g., fluency and pragmatic issues). But overall, the data from the present study suggests that the constraint of proficiency seems to play a bigger role than the constraint of speaker type for this type of tasks and this type of analysis.

Having discussed how the results of the study relate to theories of second language acquisition, I now would like to address the pedagogical implications of the present study. As we observed in the findings, participants employed a wide range of verb forms when expressing futurity in the protocols. As noted above, in the interview protocol, speakers produced high frequencies of the PF, LF, and PI, and lower frequencies of the MF, subjunctive, conditional, and other verbs (mainly non-inflected verbs and present progressive). In the metalinguistic protocol, L2 learners and HSs also used the abovementioned forms but strongly favored alluding to the PF and the MF in

their narratives. A deeper look at the data revealed several interesting findings regarding the use of the MF. In the interview protocol, the data showed that L2 learners who had studied Spanish formally for ten years or more produced the MF in more instances than those with fewer years of instruction. The present investigation also revealed that there was an overrepresentation of the MF in participants' metalinguistic narratives compared to the answers to the interview protocol, especially in the L2 group. The fact that the overrepresentation of the MF was more pronounced in the L2 group makes us consider that this result may be a consequence of the input L2 learners and HSs received while acquiring Spanish, and possibly of instructional effects.

Regarding input, it is important to take into account that L2 learners and HSs are typically exposed to different sources of input. In general, a large part of L2 learners' experience takes place in a classroom environment, while HSs predominantly acquire Spanish in a naturalistic setting (Montrul, 2012). That is, HSs acquire the language in their speech community. However, as Montrul (2012) notes, HSs' language acquisition often involves the "relearning" of the heritage language later in life. In the case of the HSs of the present study, all HS participants were college students and around two-thirds had taken at least one Spanish course at the university. Thus, it is possible that classroom instruction also had an effect on HSs' expression of futurity, although the responses obtained from the language background questionnaire (Appendix E) revealed that the L2 learners had much more experience in the Spanish classroom than their HS counterparts.

Regarding Spanish language instruction, the curriculum and teaching materials employed may influence the use of future forms by learners of Spanish (Kanwit, 2014). For example, both instructors and students consider textbooks an important component in

second language teaching and learning (e.g., Angell, DuBravac, and Gonglewski, 2008; Askildson, 2008). Thus, L2 participants' higher use of the MF at the L2-IH proficiency level might be a reflection of the overrepresentation of the MF in L2 Spanish textbooks of that level (Orozco and Thoms, 2014) and in formal instruction in general. It is also possible that participants may have opted to choose what they thought was the grammatically correct response.

Van Naerssen (1983, 1995) was the first to investigate the possible link between the depiction of the expression of futurity in L2 textbooks and learners' use of this function. In her studies, Van Naerssen found that while the MF was presented in all 16 textbooks analyzed, only 10 presented a formal lesson on the PF. These numbers are in striking contrast to the widely documented higher use of the PF over the MF in Spanish (e.g., Claes and Ortiz López, 2011; Lastra and Butragueño, 2010; Orozco, 2004, 2007; Sedano, 1994), especially in the United States where Spanish speakers are in contact with English (e.g., Gutiérrez, 1995; Orozco, 2004, 2007, 2018; Zentella, 1997). More recently, Orozco and Thoms (2014) examined 20 beginner and intermediate college-level Spanish L2 textbooks and found that textbooks continue to emphasize the MF variant, especially at the intermediate proficiency level, which matches the L2-IH results of the present study. Since it has been amply documented that the use of the MF is on the decline in favor of the PF, these findings suggest that students continue to be presented with a skewed view of how native speakers of Spanish typically express futurity. In other words, there seems to be a disconnect between the reality of the expression of futurity and its representation in Spanish L2 textbooks, and it has remained for three decades. This phenomenon is not unique to the expression of futurity. Gutiérrez and Fairclough (2006)

among others have found that foreign language (FL) pedagogical materials often fail to reflect the linguistic reality of native speaker language use for example regarding the subjunctive. Although it is not certain to what extent FL materials, such as Spanish language textbooks, could be contributing to L2 learners' use of futurity, it is possible that the way Spanish language textbooks depict the expression of futurity could shape language instruction and therefore, L2 learners' language use and knowledge. For this reason, we join Van Naerssen (1995) and Orozco and Thoms (2014) in pointing out that there is a need for research on sociolinguistic variation to be applied to materials development so that instruction reflects the linguistic reality of native speaker language use.

It is necessary to ascertain why instructional materials do not accurately represent the way in which speakers express futurity throughout the Spanish-speaking world, and especially in the Spanish-speaking communities in the US (e.g., Gutiérrez, 1995; Orozco, 2004, 2007, 2015; Zentella, 1997). As noted by Gutiérrez and Fairclough (2006), language attitudes and ideologies towards different varieties of Spanish seem to play a role in the teaching of Spanish. Although there is a large population that speaks Spanish in the US (around 37 million, according to Pew Research Center, 2017), instructors, material creators and students seem to associate a higher value to academic norms or "standard" monolingual norms (e.g., Bernal-Enríquez and Hernández-Chávez, 2003; Valdés, González, López García, and Márquez, 2003). These ideologies towards the Spanish spoken in the US contrast with the trend that the number of Spanish speakers is growing in the United States (Pew, 2017), and there is a growing demand for courses on Spanish for the professions in American universities (Basaluzzo, 2007; Klee, 2015).

Therefore, we can hypothesize that it is likely that L2 learners and HSs will use Spanish in their professional lives in their communities in the US. For this and other reasons described below, it is important to incorporate sociolinguistic variation into the classroom (e.g., Canale and Swain, 1980; Gutiérrez and Fairclough, 2006) and increase students' awareness of language variation to include not only the canonical forms but also the variety of Spanish that is spoken in the community.

Fortunately, scholars have recently begun to bridge research and practice in this area. Driven by the lack of research on strategies to include variation and teach sociolinguistic competence in the classroom, Pisabarro and Kanwit (2018) set out to design a classroom intervention consisting of a brief sociolinguistically-informed explanation (i.e., explicit instruction). The results show preliminary evidence for the effectiveness of the classroom intervention since it helped L2 learners in the treatment group develop patterns that match NS speech more closely (e.g., higher use of PF) and created awareness regarding the role of linguistic constraints in the expression of futurity. I will suggest other possible pedagogical interventions in the section dedicated to directions for future research presented in the next chapter (Chapter 8).

Overall, this discussion has highlighted how adopting a functionalist approach within the sociolinguistic framework and using different tasks (i.e., the interview protocol that elicited spontaneous speech and the metalinguistic protocol) has allowed us to obtain a comprehensive picture on how L2 learners and HSs express futurity. The diversity of verb forms participants employed to express futurity has shed light onto the grammaticalization of certain verb forms, as well as into the process of second language acquisition, which has practical implications for the teaching of Spanish in the classroom.

CHAPTER 8: CONCLUSIONS

This dissertation set out to examine the expression of futurity in L2 learners and HSs of three proficiency levels using a functionalist approach. To conclude the current study, in the following sections I discuss the limitations and suggestions for future research.

8.1. Limitations of the study

There are several limitations to this study. The first limitation has to do with sample size, especially in the HS-IM group ($n=5$). The study used purposeful sampling, and the low number of HS-IM participants was due to the difficulty of finding HSs with a lower proficiency level in the circumscribed area where the study was conducted. The small sample size in the HS-IM group may have yielded type I (false positive) and type II (false negative) errors. Further, as described in the methodology chapter, only HSs who fit certain criteria (in addition to the language, age, and educational level criteria that all L2 and HS participants had to meet) were included in the study. Specifically, to minimize diversity in the HS group, I restricted the HS group to those who were born in the United States or who migrated to the US when they were five years old or younger. In addition, participants in the HS group had not attended bilingual schooling programs because intensive early language experience in Spanish in some participants could have yielded confounding results. Thus, the findings obtained in the present study represent the participants' linguistic behavior and may be of limited generalizability with regards to HSs with other characteristics or from other areas of the United States. It is possible that

HSs who have different language experiences than those of the criteria of the present study express futurity in Spanish in different ways.

A second limitation is related to the tasks employed in the dissertation. While the use of several tasks allowed for triangulation of results, the tasks were not free from limitations. For instance, the oral interview protocol aimed to elicit as naturalistic expression of futurity as possible. However, it is important to note that, due to task effects, participants' responses could have been different if the study had also included a written elicitation task (e.g., Bardovi-Harlig, 2017; Ellis, 2005; Geeslin, 2010; Tarone, 1983). For example, it is possible that participants may not have produced non-inflected verbs in future contexts in a written mode task since they would have had more time to prepare their answers and use explicit knowledge. If we take into consideration the results of the metalinguistic protocol, in which there was an over-representation of the MF by the participants of the study, it is also possible that L2 learners may have employed the MF more frequently in a written task.

Another limitation of the interview protocol has to do with priming, a phenomenon by which recent exposure to a stimulus unconsciously affects one's response to the same or related stimulus (e.g., Anderson, 1983; Bock, 1986; Pickering and Ferreira, 2008). Recall that, in order not to prime participants with verbs in the future tense, the questions of the interview protocol contained temporal markers referring to the future (e.g., *¿Tienes planes para este viernes?* 'Do you have plans for Friday?'). However, the temporal markers in the questions might have caused priming as well. In other words, the temporal markers in the interview questions might have influenced the quantity of temporal markers participants employed in their answers. As a result of

priming, participants may have used more temporal markers than they would have otherwise. On the other hand, the presence of temporal information in the question may have decreased participants' use of temporal markers in their answers to the interview questions.

There were also limitations with regards to the preference task (PT), which examined participants' preference regarding the use of temporal markers when expressing futurity. The PT had three conditions: One condition did not contain temporal markers, and two conditions did contain temporal markers (one condition before the verb, the other condition after the verb). Therefore, there was an imbalance for a forced-choice task that may have influenced the results. That is, it is possible that as a consequence of the design, participants may have selected markers in the PT more often than they would have in a natural speech setting.

A third limitation has to do with the difficulty of accurately comparing the results of the present study to data from monolingual speakers throughout the Spanish-speaking world and Spanish speakers in the United States. The reason is that the vast majority of literature on the expression of futurity in Spanish has traditionally concentrated on the analysis of frequencies of use of the periphrastic future (PF) and the morphological future (MF) (e.g., Blas Arroyo, 2008; Méndez Vallejo, 2008; Sedano, 1994), and the present indicative (PI) (e.g., Gómez Soler and de Prada Pérez, 2016; Orozco, 2005, 2007, 2015; Silva-Corvalán and Terrell, 1989). In contrast, this dissertation adopted a functionalist approach, examining all verb forms employed in contexts referring to the future. The result is that the L2 and HS participants of this study were found to employ a more diverse range of verbs to express futurity than the PF, MF, and PI. Specifically, the

participants of the study employed the LF, the subjunctive, the conditional, non-inflected verbs and the present progressive. Overall, close to half of the expressions of futurity by the participants of the present study used verbs other than the PF, MF, and PI. As a result of the wider range of expressions of futurity found by using a functionalist approach, the frequencies of use of each of the verb forms was not comparable to the results of studies that only analyzed two or three verb forms (i.e., PF, MF, and PI). Comparisons of the results of the present study with the existing literature on the expression of futurity throughout the Spanish-speaking world can shed some light on how L2 learners and HSs compare to monolingual Spanish speakers. Nonetheless, comparisons can only be made with caution since the approach of my study did not resemble the previous approaches in the existing literature.

Lastly, a fourth limitation of the present study is its inability to adequately identify and account for the potential effects of the acquisition setting in the L2 and HS groups. We can hypothesize that the input participants received (i.e., primarily the home for HSs and the classroom for L2 learners) influenced the way in which they express futurity in Spanish (Montrul, 2012). However, further research would be needed to confirm that language instruction did indeed play a role and contributed to a wide range of explanations in the data obtained from the L2 group. Since the HSs of the study had also received formal education in Spanish, we can suggest that formal schooling in Spanish also influenced their responses. But more succinctly, intuition seems to have guided HSs responses in the metalinguistic questionnaire, something that was not pervasive in the responses obtained in the L2 group. It is only possible to formulate these hypotheses with the data from the present study.

Despite these limitations, the data examined was able to capture representative trends regarding L2 learners' and HSs' expression of futurity and their metalinguistic knowledge. In the next section, I conclude this chapter proposing suggestions to explore some of the findings of this study in more detail with the goal of improving our knowledge on the development of the expression of futurity in L2 and HS Spanish.

8.2. Directions for future research

The topics discussed throughout this dissertation call for future investigations regarding the acquisition of the expression of futurity. The first direction of research should examine the development of the expression of futurity over time, rather than cross-sectionally as presented in the present study. For example, we may be able to obtain longitudinal data by examining L2 learners' and HSs' expression of futurity as they take Spanish courses during their years at the university.

Also, future research should include L2 learners and HSs of a wider range of proficiency levels, not only of intermediate and advanced levels. By including beginner speakers, we will be able to shed more light on L2 learners and HSs' language acquisition. However, a limitation of this proposal for future research is that it might be difficult to find HSs of low proficiency level.

Another direction of research should consider employing different tasks. According to the work of several researchers (e.g., Bardovi-Harlig, 2017; Ellis, 2005; Geeslin, 2010; Schmidt, 1980; Tarone, 1983), factors such as the degree of awareness required by a task or the time allotted to complete it affect the results. Therefore, future studies on the expression of futurity should employ additional production and receptive

tasks in different modalities, including writing. Regarding production tasks, participants could be asked to have a conversation with their peers or to narrate an event in the future. To explore the possible effects of mode in the expression of futurity, participants could complete timed and non-timed writing tasks such as answering text messages or writing an e-mail. Another written task could entail completing a film-based protocol in which participants need to guess what happens at the end of the movie. Regarding controlled tasks, a task in a future study could consist of participants matching columns between verb forms and function (e.g., near future, distant future, (un-)certainty, etc.). Studies could also employ more forced-choice tasks (e.g., preference tasks) examining the effects of different linguistic constraints (e.g., (un-)certainty or lexical type of verb) on the use of verb forms in future contexts. That is, future work in this direction should aim to obtain as varied data as possible to triangulate results and to obtain a comprehensive understanding of the expression of futurity. While the current study contributes by being the first one employing naturalistic interview data and metalinguistic awareness data regarding the expression of futurity in L2 learners and HSs, adding tasks like the ones mentioned above would allow for a deeper understanding of how speakers express futurity in Spanish.

Future research could also explore ways to implement and measure pedagogical interventions in the classroom with regards to the expression of futurity. This research would allow us to examine the effects of different pedagogical interventions. The experimental studies would include a treatment group and a control group. For example, the instructor in the treatment group could employ a bottom-up approach to teaching, facilitating a learning environment where the student has an active role. Instead of

explicitly presenting information about the different ways of expressing futurity, students would be guided to explore linguistic variation through a variety of input processing tasks (VanPatten, 2004). For example, students would read a text, watch a video or listen to an excerpt in Spanish (e.g., a movie clip or a YouTube video). Then, students would complete awareness raising activities like futurity recognition tasks identifying all words that express futurity in the text, or matching columns between verb forms and function (e.g., temporal distance, (un-)certainty, etc.). After that, an activity that promotes a “discovery moment” would prompt students to reflect on the variety of verbs and lexical items that are employed to express futurity in Spanish. Another way to introduce variation into the classroom is through the creation of dialogues which exhibit failure in the use of future forms, having learners critique possible communication breakdowns. Once students are aware of the linguistic variation regarding the expression of futurity in Spanish, they would complete production tasks. One activity could use a Discourse Completion Task that resembles natural speech to generate expressions of futurity. Another activity would propose authentic scenarios in which learners discuss and make choices in pairs about planning future events. If the composition of the class allows, L2 learners could discuss how to express future events with HSs. For instance, we could design collaborative circles or dialoguing among learners and between learners and native speakers, so learners share and receive input regarding the use of futurity. Research exploring pedagogical interventions like the ones described above could contribute to bridging the existing gap between instructional materials and the expression of futurity throughout the Spanish-speaking world. The goal is that students are able to communicate with Spanish speakers in the United States and around the world.

Lastly, sociolinguistic investigations should also explore the expression of futurity by monolingual and bilingual Spanish speakers throughout the Spanish-speaking world employing a functionalist approach (e.g., Bardovi-Harlig, 2007, 2017; von Stutterheim and Klein, 1987). That is, studies should not only examine the expression of futurity as a tripartite structure (i.e., PF, MF, and PI). Instead, future research should investigate the full range of verb forms speakers employ to express future time. In the present study, L2 learners and HSs overall employed verbs other than the PF, MF, and PI in close to half of the instances in which they referred to the future in the interview protocol. Thus, adopting a functionalist approach will allow us to capture the full picture of Spanish speakers' language use when expressing futurity, which is probably more diverse and variable than has been reported. Further, the results of such a study could shed light on the grammaticalization of certain verb forms.

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APPENDICES

Appendix A: Interview Protocol (English and Spanish)

Questions to elicit expression of futurity:

¿Qué piensas hacer después de completar este estudio?

‘What are you going to do after completing this study?’

¿Cuáles son tus planes para esta noche?

‘What are your plans tonight?’

¿Qué piensas cenar?

‘What are you thinking about having for dinner?’

¿Cómo se presenta tu día mañana?

‘How does your day look tomorrow?’

¿Qué piensas comer mañana?

‘What are you planning on eating tomorrow for lunch?’

¿Y para cenar?

‘And for dinner?’

¿Tienes planes para este viernes?

‘Do you have plans for Friday?’

¿Y para el sábado?

‘What about Saturday?’

¿Y el domingo, tienes planes?

‘And Sunday, do you have plans?’

¿Qué planes tienes para las vacaciones de primavera?

‘What are your plans for spring break?’

¿Y en primavera en general?

‘And in spring in general?’

¿Tienes planes para las vacaciones de verano?

‘Do you have plans for summer break?’

¿Qué piensas hacer cuando te gradúes?

‘What plans do you have after you graduate?’

¿Cómo imaginas tu primer trabajo después de la graduación?

‘How do you imagine your first job after graduation?’

¿Cómo imaginas tus primeras vacaciones cuando tengas un trabajo después de la graduación?

‘How do you imagine your first vacation when you have a job after graduation?’

¿Cómo te imaginas la vida en el año 2027?

‘How do you imagine life in the year 2027?’

Y, específicamente, ¿cómo te imaginas tu vida en diez años (2027)?

‘And, specifically, how do you imagine your life in ten years?’

¿Dónde piensas vivir en 2027?

‘Where do you think you will live in 2027?’

Distractors:

¿Como va el semestre, qué cursos tomas?

‘How is the semester going? What courses are you taking?’

¿Cuál es tu *major* y por qué elegiste ese *major*?

‘What is your major and why did you choose that major?’

¿Qué características tienen tus profesores favoritos?

‘What characteristics do your favorite instructors have?’

¿Vives en dormitorios, fuera del campus, con tu familia? ¿Qué motiva tu decisión?

‘Do you live in dorms, outside of campus, with your family? What motivates your decision?’

¿Cambia la vida de high school a la universidad? ¿Cómo?

‘Does life change from high school to college? How?’

Además de estudiar, ¿trabajas también?

‘On top of studying, do you work as well?’

¿Eres miembro de algún club, equipo u organización de estudiantes en Rutgers?

‘Are you a member of a club, sports team, or organization at Rutgers?’

¿Qué haces en tu tiempo libre?

‘What do you like to do in your free time?’

¿Qué has desayunado hoy? ¿Sueles desayunar eso normalmente?

‘What did you have for breakfast today? Do you usually have that for breakfast?’

¿Qué has hecho antes de participar en este estudio hoy?

‘What did you do today before participating in this study?’

¿Qué hiciste el fin de semana pasado?

‘What did you do last weekend?’

¿Qué hiciste el verano pasado?

‘What did you do last summer?’

Appendix B: Coding Guide

Linguistic constraints	
1. Use of the future form (1= PF, 2= MF, 3= PI, 4= LF, 5=conditional, 6= subjunctive future, 7= other) I did not code cases where no verb was used	1= PF: voy a comer 2= MF: comeré 3= PI: como 4= LF: quiero comer 5= Conditional: comería 6= Subjunctive future: coma 7= Other: e.g., non-inflected verbs: comer; present continuous: estoy comiendo
2. Question with temporal distance (the context of the question contains TD) (1= later that day, 2= the next day, 3= the next weekend, 4= the next months, 5= after graduation, 6= distant future)	1= Later that day: e.g., esta noche 2= The next day: e.g., mañana 3= The next weekend: e.g., el próximo sábado 4= The next months: e.g., en mayo 5= After graduation: e.g., cuando me gradúe 6= Distant future: e.g., en diez años
3. Type of temporal adverbial appearing in utterance issued by speaker (1= later that day, 2= the next day, 3= the next weekend, 4= the next months, 5= after graduation, 6= distant future, 7= no presence of adverbial marker)	1= Later that day: e.g., esta noche 2= The next day: e.g., mañana 3= The next weekend: e.g., el próximo sábado 4= The next months: e.g., en mayo 5= After graduation: e.g., cuando me gradúe 6= Distant future: e.g., en diez años
4. Position of temporal adverbials appearing in the utterance (1= before verb, 2= after verb, 3= before and after verb, 4= NA)	1= Before verb: e.g., mañana voy a visitar a mi abuela 2= After verb: e.g., voy a visitar a mi abuela mañana 3= Before and after verb: e.g., mañana voy a

	<p>visitar a mi abuela a las 11</p> <p>4= NA: e.g., voy a visitar a mi abuela</p>
<p>5. Quantity of temporal adverbials appearing in the utterance</p> <p>(1= one, 2= two or more, 3= none)</p>	<p>1= One: e.g., en el futuro quiero ser doctor</p> <p>2= Two or more: e.g., en diez años, en el futuro quiero ser doctor</p> <p>3= None: e.g., quiero ser doctor</p>
<p>6. Clause type in which the future form appears</p> <p>(1= main, 2= subordinate)</p>	<p>1= Main: e.g., Mañana voy a hacer la tarea</p> <p>2= Subordinate: e.g., Creo que mañana voy a hacer la tarea</p>
<p>7. Semantic type of verb</p> <p>(1=dynamic non-motion, 2= motion, 3= stative, 4= psychological/ perceptual)</p>	<p>1= Dynamic non-motion: predicates that require energy but do not include motion. E.g., comer, usar, hacer, trabajar, cenar, dar, etc.</p> <p>2= Motion: motion predicates. E.g., salir, ir, correr, entrar, manejar, etc.</p> <p>3= Stative: predicates that do not require energy. E.g., estar, tener, ser, quedarse, etc.</p> <p>4= Psychological/perceptual: predicates that include visual or aural senses. E.g., creer, ver, oír, preferir, gustar, sentir, etc.</p>
<p>8. Markers of certainty conveyed in the clause</p> <p>(1= no marker, 2= high certainty, 3= mid certainty, 4= low certainty, 5= contingent <i>si</i> 'if' clause)</p>	<p>1= No marker. E.g., voy a ir al gimnasio</p> <p>2= High certainty: definitivamente, seguramente, seguro que, sé que, realmente, obviamente... E.g., seguro que voy a ir al gimnasio</p> <p>3= Mid certainty: creo que, pienso que, me parece que, supongo que... E.g., creo que voy a ir al gimnasio</p> <p>4= Low certainty: quizá, tal vez, ojalá, dudo</p>

	<p>que, espero que, a lo mejor, igual, no sé si...</p> <p>E.g., quizá vaya al gimnasio</p> <p>5= Contingent <i>si</i> 'if' clause.</p> <p>E.g., si llueve, iré al gimnasio</p>
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External constraints	
1. Type of speaker (1= HS-IM, 2= HS-IH, 3= HS-ADV, 4= L2-IM, 5= L2-IH, 6= L2-ADV)	1= HS Intermediate-mid: 20-29 in the DELE 2= HS Intermediate-high: 30-39 in the DELE 3= HS Advanced: 40-55 in the DELE 4= L2 Intermediate-mid: 20-29 in the DELE 5= L2 Intermediate-high: 30-39 in the DELE 6= L2 Advanced: 40-55 in the DELE
2. Exposure to Spanish dialect (1= Mexico and Central America, 2= Caribbean, 3= South America, 4= Spain, 5= US Spanish)	
3. Formal education in Spanish (1= NA, 2= less than 5 years, 3= 5-9 years, 4= 10 or more years)	
4. L2 and HS Study Abroad/Living Abroad Experience (1= Mexico and Central America, 2= Caribbean, 3= South America, 4= Spain, 5= NA)	If participants had experience in more than one region, I coded for the region where they had spent the longest period of time.
5. Gender (1= Female, 2= Male)	
6. Age (1= 20-30 years old, 2= 30 years old or older)	

Appendix C: Preference Task

(The order of items in this task was randomized with 18 distractors)

Instructions: Read each context. Then read the follow-up sentences and choose which of three possible sentences you prefer in each context.

María y Lola son amigas. Están tomando un café juntas en el centro de estudiantes de College Ave. María pregunta a Lola por sus planes para mañana. Lola responde:

Mañana voy a ir al cine con Marcos.

Voy a ir al cine mañana con Marcos.

Voy a ir al cine con Marcos.

María está interesada en la relación entre Lola y Marcos y pregunta si tienen más planes. Lola responde:

Sí, después de la película también iremos a cenar.

Sí, también iremos a cenar.

Sí, también iremos a cenar después de la película.

Estás en casa preparando una fiesta para el sábado. Haces una lista de bebida y comida antes de ir al supermercado. Cuando sales de casa, dices a tu compañero:

Voy a comprar al supermercado.

Voy a comprar al supermercado ahora.

Ahora voy a comprar al supermercado.

Tienes que hacer un proyecto con un compañero de tu clase de español. Necesitan encontrar un momento cuando los dos tienen tiempo. En clase, tu compañero de clase te pregunta: ¿qué planes tienes hoy después de clase? Tú respondes:

Después de clase voy a la biblioteca.

Voy a la biblioteca.

Voy a la biblioteca después de clase.

David está hablando con su *advisor* sobre sus clases y su futuro. El *advisor* pregunta a David: ¿qué planes tienes este verano? David responde:

Voy a trabajar en un restaurante este verano.

Este verano voy a trabajar en un restaurante.

Voy a trabajar en un restaurante.

Marta está en una reunión familiar. Su tío pregunta: Marta, ¿cómo va la universidad? ¿qué planes tienes después de graduarte?

Después de graduarme viajaré por Europa.

Viajaré por Europa.

Viajaré por Europa después de graduarme.

En una de tus clases en Rutgers el profesor pregunta a los estudiantes cómo imaginan la Universidad en 2027. Un estudiante responde:

En 2027 todas las clases serán online.

Todas las clases serán online en 2027.

Todas las clases serán online.

Conoces a un amigo nuevo, y en la primera conversación hablan sobre sus aspiraciones profesionales. Tu nuevo amigo te pregunta: ¿Qué piensas hacer después de tu graduación? Tú respondes:

Quiero ir a la escuela de medicina.

Quiero ir a la escuela de medicina después de mi graduación.

Después de mi graduación quiero ir a la escuela de medicina.

Ese amigo te pregunta: ¿por qué quieres ser médico? ¿cómo imaginas tu vida cuando seas doctor? Tú respondes:

Cuando sea doctor voy a ayudar a muchos pacientes.

Voy a ayudar a muchos pacientes.

Voy a ayudar a muchos pacientes cuando sea doctor.

Tu hermana vive en Nueva York pero hoy está en Nueva Brunswick por su trabajo. Ella te llama para cenar juntos esta noche. Tú dices:

No puedo, esta noche tengo que hacer mi tarea.

No puedo, tengo que hacer mi tarea esta noche.

No puedo, tengo que hacer mi tarea.

Estás en la oficina donde trabajas. Mañana es tu día libre pero tu jefe te pregunta si puedes venir y trabajar horas extra. Tú respondes:

Tengo que terminar un proyecto importante para la universidad.

Tengo que terminar un proyecto importante para la universidad mañana.

Mañana tengo que terminar un proyecto importante para la universidad.

Estás en clase de español y las instrucciones dicen que tienes que hablar del próximo fin de semana con tu compañero. Tu compañero pregunta: ¿Qué planes tienes este fin de semana? Tú respondes:

Voy a visitar a mi familia este fin de semana.

Voy a visitar a mi familia.

Este fin de semana voy a visitar a mi familia.

Estás hablando con tu amigo sobre tus planes cuando terminen las clases este semestre. Tu amigo dice:

En mayo y junio trabajo en el laboratorio de química.

Trabajo en el laboratorio de química en mayo y junio.

Trabajo en el laboratorio de química.

Tu amigo ha comprado el nuevo iPhone y discuten sobre la calidad de la cámara y sobre sobre los teléfonos en el futuro. Tu amigo dice:

Los teléfonos celulares tendrán batería infinita en el futuro.
Los teléfonos celulares tendrán batería infinita.
En el futuro los teléfonos celulares tendrán batería infinita.

Tú respondes que hay cosas más importantes que la batería del teléfono. Dices:

Seguro que habrá más tolerancia.
En el futuro seguro que habrá más tolerancia.
Seguro que habrá más tolerancia en el futuro.

Vives fuera del campus con tu familia. Tu madre te ve estresado y dice que necesitas descansar. Ella recomienda que duermas mucho mañana. Tú dices:

Difícil. Mañana voy a la universidad porque tengo un examen.
Difícil. Voy a la Universidad porque tengo un examen mañana.
Difícil. Voy a la universidad porque tengo un examen.

Estás en medio de una conversación de política y hay personas con opiniones muy diferentes. En la conversación sobre las próximas elecciones, una persona dice:

Van a cambiar muchas cosas en ocho años.
Van a cambiar muchas cosas.
En ocho años van a cambiar muchas cosas.

Tu entrenador (coach) de fútbol pide opinión a los estudiantes sobre una posible reunión mañana por la noche. Tú respondes:

Mañana por la noche estaré trabajando.
Estaré trabajando mañana por la noche.
Estaré trabajando.

Appendix D: Metalinguistic Awareness Interview

A) Instructions: Read the title and then read the three follow-up sentences (a, b, and c).

Identify any differences in the sentences (a, b, and c) and explain what makes them different. Do you notice a difference in meaning?

You can write in English or in Spanish (or a combination of both).

Please provide as much information as possible.

1. *Ana tiene planes de ir a Boston*

1a. Ana viaja a Boston.

‘Ana travels to Boston.’

1b. Ana viajará a Boston.

‘Ana will travel to Boston.’

1c. Ana va a viajar a Boston.

‘Ana is going to travel to Boston.’

2. *Mis planes para mañana por la noche*

2a. Haré la tarea.

‘I will do homework’

2b. Hago la tarea.

‘I do homework’

2c. Voy a hacer la tarea.

‘I am going to do homework’

B) Instructions: For each of the following scenarios, explain how you would talk about your plans in Spanish and how you would decide which words and verb forms to use.

You do not have to answer the question at the end of the scenario, you need to explain how you would answer it in Spanish.

You can write in English or in Spanish (or a combination of both).

Please provide as much information as possible.

1. You are eating lunch in the university cafeteria when one of your classmates sits down across the table from you and greets you. Your classmate asks you about your plans for the weekend.
2. You get home from class and receive a call from one of your best friends from high school who is attending a different school. You have not seen each other since winter break, and your friend asks you what you think you will do this summer.
3. You are in class and today's topic is disruptive technology and innovation in society. The professor asks the class how they imagine life ten years from now (in 2027).

Instructions: When talking about the future in Spanish, how do you decide which words to use? Do you use verbs, other words, or both? If verbs, how do you express them? What factors come into play? If other words, which ones?

You can write in English or in Spanish. Please provide as much information as possible.

Appendix E: Language Background Questionnaire

Participants will complete the questionnaire online at www.surveygizmo.com

Last Name:

First Name:

Today's Date:

Age:

Date of Birth:

Male:

Female:

Participant code:

(1) Please list all the languages you know in order of dominance (the one you speak better first):

1	2	3	4	5
---	---	---	---	---

(2) Please list all the languages you know in order of acquisition (your native language first):

1	2	3	4	5
---	---	---	---	---

(3) Please list what percentage of the time you are currently and on average exposed to each language. (Your percentages should add up to 100%):

List language here:					
List percentage:					

(4) When choosing a language to speak with a person who is equally fluent in all your languages, what percentage of time would you choose to speak each language? Please report percent of total time. (Your percentages should add up to 100%):

List language here:					
List percentage:					

(5) Do you consider yourself monocultural or bicultural? Please list the other cultures you identify with and rate the extent to which you identify with each culture. (Examples of possible cultures include US-American, Chinese, Spanish, Jewish-Orthodox, etc.):

List cultures here:					
Scale (1-10)					

(6) Please mark your highest education level:

High School

Some college

Some graduate

PhD/MD/JD

Professional Training

College

Masters

Other:

Specify studies: _____

Profession: _____

(7) If you have ever lived or studied abroad in another country, please provide name of country and dates of residence:

All questions below refer to your knowledge of Spanish:

Spanish is my second / third / fourth language.

(1) Age when you...:

began being exposed to Spanish: (if at birth, participants answer additional questions below for HSs)***

began speaking Spanish:

became fluent in Spanish:

(2) How many years have you studied Spanish in school? (including elementary, middle, and high school) _____ yrs.

Please, list any formal instruction you have received in this language. Include courses before coming to Rutgers as well as all Spanish courses you have taken at Rutgers (numeric code and/or course name).

(3) Which Spanish textbooks have you used in class?

(4) Indicate any official Spanish proficiency tests you have taken (e.g., OPI, DELE, SIELE...) as well as the date you took it and the score you obtained:

(5) Please list the number of years and months you spent in each language environment:

	Years	Months
A country where this language is spoken. Name Country:_____		

A family where this language is spoken		
A school and/or working environment where this language is spoken		

(6) On a scale from zero to ten, please select your *level of proficiency* in speaking, understanding, and reading:

Speaking		Understanding spoken language		Reading	
----------	--	-------------------------------	--	---------	--

What is the “easiest” part of Spanish for you?

What is the “hardest” part of Spanish for you?

How important is it for you to learn or maintain your Spanish? (On a scale from 1 to 10.)

Is speaking Spanish an important part of your cultural identity?

(7) On a scale from zero (not a contributor) to ten (most important contributor), please select how much the following factors contributed to you learning:

Interacting with friends		Language tapes / self instruction	
Interacting with family		Watching TV	
Reading		Listening to the radio	

(8) Please rate to what extent you are currently exposed to this language in the following contexts (0= never, 10= always):

Interacting with friends		Listening to radio / music	
Interacting with family		Reading	
Watching TV		Language-lab/self-instruction	

***Additional questions for HSs only:

1) Where have you lived in your lifetime? If you have lived in different places, indicate your age when you lived in each place. For example:

Newark: 0-10 years old,

Elizabeth: 10-18 years old,
 New Brunswick: 19 years old - present

2) In your everyday life: what percentage of the time do you speak English?

What percentage of the time do you speak Spanish?

For example: English 50%, Spanish 50%

3) What is your parents' country of origin? (If born in US, write "born in US.")

4) When your parents are speaking to you, what % of the time do they use Spanish?

5) When you are speaking to your parents, what % of the time do you use Spanish?

6) How important was it for your parents that you learn Spanish?

7) How many siblings do you have? How old are they?

8) When speaking to your siblings, what % of the time do you use Spanish?

9) Do you have contact with other Spanish-speaking family members? Yes No

10) How often do you talk to them? (a) daily (b) weekly (c) monthly (d) yearly (e) rarely

11) When LISTENING, you are more comfortable...

using English

using Spanish

equally comfortable using both

12) When SPEAKING, you are more comfortable...

using English

using Spanish

equally comfortable using both

13) When READING, you are more comfortable...

using English

using Spanish

equally comfortable using both

14) When WRITING, you are more comfortable...

using English

using Spanish

equally comfortable using both

15) Would you like to add any additional information about your experience speaking Spanish?

Appendix F: Language Proficiency Test

Name (print): _____ Spanish course: _____

GRAMÁTICA

Write the correct letter (A, B, C or D) for each sentence. "Ø" means nothing is necessary to complete the sentence.

BLOQUE A

- ___ 1. _____ edificio alto es la Torre Sears.
A. Eso B. La C. Aquel D. Ø
- ___ 2. Los autos que chocaron en el accidente iban _____ el oeste.
A. dentro B. hacia C. fuera D. Ø
- ___ 3. Los novios pasaron unas vacaciones fantásticas _____ fueron a Hawai.
A. cuando B. que C. donde D. Ø
- ___ 4. –¿Van a invitar al profesor y a su esposa a la reunión? –Sí, vamos a invitar _____.
A. ellos B. sus C. los D. Ø
- ___ 5. Si no puedes usar tu bicicleta usa _____.
A. nuestra B. de él C. la mía D. Ø
- ___ 6. A Juana no _____ gustan las películas de ciencia ficción.
A. le B. se C. la D. Ø
- ___ 7. En nuestro barrio hay muchas casas bonitas, pero _____ Juan es la más bonita.
A. su B. de la C. la de D. Ø
- ___ 8. –¿Conoces _____ hombre de la camisa verde? –¿Es muy guapo verdad?
A. un B. al C. esto D. Ø
- ___ 9. Óscar no va a graduarse este semestre, ni yo _____.
A. tampoco B. ningún C. además D. Ø
- ___ 10. –¿Con quién saliste al bar anoche? –No salí con _____; fui sola.
A. tú B. alguien C. nadie D. Ø
- ___ 11. Estamos comprando _____ pan francés para la cena de mañana.
A. la B. hay C. algo D. Ø
- ___ 12. La palabra 'venir' viene _____ latín.
A. por B. en C. del D. Ø

BLOQUE B

- ___ 1. Por favor, _____ llegues a Madrid, me llamas.
A. desde que B. antes de C. cuando D. después de
- ___ 2. –¿Hasta qué hora estuvo Lorenzo en la consulta?
–Pues no sé, no lo vi. Cuando yo llegué, a las 12, ya se _____.
A. iba B. ha ido C. fue D. había ido
- ___ 3. Hoy invito yo _____ todos al café, que es mi cumpleaños.
A. para B. de C. a D. sobre
- ___ 4. ¿_____ has pedido ya a tus padres?
A. Se te B. Se lo C. Se les D. Se le
- ___ 5. Manuel, como no _____ más fruta, no tendremos suficiente.
A. compres B. compras C. compraras D. comprarás
- ___ 6. ¿Que te vas a París? ¡Quién _____ tú!
A. es B. sea C. sería D. fuera
- ___ 7. Sinceramente, yo que tú _____ un mapa antes de viajar.
A. compraré B. compro C. compraría D. comprara
- ___ 8. La música de los vecinos está muy alta. Estoy _____ llamar a la policía.
A. a B. por C. entre D. tras
- ___ 9. El médico me dijo que _____ que volver mañana.
A. había tenido B. tuve C. tenía D. he tenido
- ___ 10. Por favor, en cuanto _____ a Lucía, dile que me llame.
A. verás B. veas C. ves D. vieras

- ___ 11. El regalo que _____ he comprado a Andrés es muy bonito.
A. lo B. se C. la D. le
- ___ 12. El profesor me pidió que _____ a sus horas de oficina.
A. iré B. vaya C. iría D. iba

BLOQUE C

- ___ 1. Ellos estaban dispuestos a que _____ nosotros en el coche y ellos andando.
A. íbamos B. fuimos C. iríamos D. fuéramos
- ___ 2. _____ como se enteraron de lo sucedido fueron a visitar a la familia.
A. Tan pronto B. No bien C. En cuanto D. Nada más
- ___ 3. Elisa llegó a la estación cuando el tren _____ de salir, ¡qué rabia!
A. acabó B. acaba C. acabaría D. acababa
- ___ 4. En cuanto deje la maleta en la habitación del hotel _____ meterme en la piscina, ¡qué calor!
A. creo B. debo C. pienso D. siento
- ___ 5. Carolina y Luis se casaron muy jóvenes, _____ cumplieron los 20 años.
A. al B. apenas C. de D. pronto
- ___ 6. El perrito de María es muy gracioso, tan pronto salta _____ se tumba.
A. que B. de C. y D. como
- ___ 7. El jefe no se ha enfadado porque María _____ llegado tarde, sino porque no se había preparado bien.
A. ha B. haya C. había D. hubiera
- ___ 8. Al abuelo le encantaba que Juanito _____ a verle todos los días.
A. haya ido B. iba C. fuera D. iría
- ___ 9. Pedro va a hablar con el director, pero no quiere que _____ vaya con él.
A. algún B. alguien C. nadie D. todos
- ___ 10. Aunque _____ muy tarde, iré a verte al hospital, te lo prometo.
A. llegue B. llegara C. llegaría D. llegué
- ___ 11. Le dieron todo lo que pidió, _____ estuviera feliz y se quedara allí.
A. a saber B. por eso C. de ahí que D. por consiguiente
- ___ 12. Está _____ nevar, así que abrígate bien.
A. por B. en C. si D. entre

COMPRENSIÓN ESCRITA

Write the correct letter (A, B or C) for each sentence.

Las bicicletas también son para el otoño

El ciclismo está considerado por los especialistas como uno de los deportes más completos. Fortalece el cuerpo y también la mente, y a él puede ___1___ cualquier persona porque no tiene ___2___ de edad. La bicicleta es uno de los mejores deportes, sobre todo para la gente ___3___ no puede hacer ejercicios de contacto con el suelo, como correr. ___4___ estemos ante un deporte muy beneficioso, ya que no solo mejora nuestra condición física, sino que nos hace más resistentes; ___5___ tiene unos efectos anímicos extraordinarios. Elimina el estrés y hace que ___6___ más eufóricos y enérgicos, ___7___ supone encontrarnos mejor. Por último, la práctica de este deporte facilita el contacto con la naturaleza.

Para practicar este deporte, debemos ___8___ en cuenta algunos aspectos. El tiempo es una de las dificultades con ___9___ que se cuenta si se vive en la ciudad. Hay que intentar sacar tiempo de ___10___ sea para poder practicar nuestro deporte preferido. En el caso de la bicicleta, lo ideal es salir todos los días aunque sólo ___11___ un cuarto de hora, si bien se recomienda pedalear ___12___ 40 y 45 minutos. También se pueden realizar tres sesiones a la semana ___13___ a los 60 minutos, y los fines de semana ___14___ de entrenar un poco más porque tenemos más tiempo libre. La distancia a recorrer dependerá ___15___ la velocidad y el ritmo que ___16___, aunque no hay que obsesionarse con los kilómetros. Otro

elemento __17__ importante es la elección de la bicicleta que hagamos: de carretera para los más deportivos, de montaña para los __18__ de la naturaleza, y las híbridas, que valen para todo.

Con la bicicleta ya escogida, solo __19__ resta equiparnos adecuadamente. En el atuendo no debe __20__ un buen *culotte*, un *maillot*, un chubasquero por si llueve, y un casco.

- | | | | |
|---------|----------------|----------------|----------------|
| ___ 1. | A) acceder | B) practicar | C) ejecutar |
| ___ 2. | A) límite | B) término | C) frontera |
| ___ 3. | A) quien | B) quienes | C) que |
| ___ 4. | A) De modo que | B) De ahí que | C) Así que |
| ___ 5. | A) pero | B) sino | C) también |
| ___ 6. | A) estamos | B) estemos | C) estaremos |
| ___ 7. | A) lo que | B) el cual | C) cuyo |
| ___ 8. | A) tener | B) considerar | C) darnos |
| ___ 9. | A) lo | B) las | C) la |
| ___ 10. | A) donde | B) como | C) cuando |
| ___ 11. | A) sería | B) es | C) sea |
| ___ 12. | A) entre | B) hacia | C) de |
| ___ 13. | A) alrededor | B) en torno | C) cerca |
| ___ 14. | A) tratar | B) intentar | C) esforzarse |
| ___ 15. | A) en | B) de | C) a |
| ___ 16. | A) corramos | B) vayamos | C) llevemos |
| ___ 17. | A) más | B) tan | C) muy |
| ___ 18. | A) amantes | B) aficionados | C) interesados |
| ___ 19. | A) se | B) nos | C) le |
| ___ 20. | A) faltar | B) sobrar | C) quedar |

Appendix G: Multinomial logistic regression of the linguistic constraints

Table G-1: Results of the likelihood ratio tests: L2-IM

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	375.452	.000	0	.
Temporal distance	494.369	118.917	15	.000
Temporal adverbials	377.679	2.227	6	.048
Clause type	399.039	23.586	3	.000
Semantic type of verb	423.110	47.658	9	.000
Markers of certainty	387.259	11.807	12	.461

Table G-2: Results of the likelihood ratio tests: L2-IH

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	486.363	.000	0	.
Temporal distance	547.715	61.352	15	.000
Temporal adverbials	493.470	7.107	6	.311
Clause type	495.055	8.692	3	.034
Semantic type of verb	585.172	98.809	9	.000
Markers of certainty	549.570	63.207	12	.000

Table G-3: Results of the likelihood ratio tests: L2-ADV

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	353.197	.000	0	.
Temporal distance	421.373	68.176	15	.000
Temporal adverbials	360.722	7.525	6	.275
Clause type	363.014	9.817	3	.020
Semantic type of verb	422.182	68.985	9	.000
Markers of certainty	376.083	22.887	12	.029

Table G-4: Results of the likelihood ratio tests: HS-IM

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	170.941	.000	0	.
Temporal distance	197.242	26.301	15	.035
Temporal adverbials	174.003	3.062	6	.382
Clause type	176.543	5.602	3	.133
Semantic type of verb	208.645	37.704	9	.000
Markers of certainty	183.429	12.488	12	.407

Appendix H: Informed Consent Forms

Department of Spanish and Portuguese
 School of Arts and Sciences
 Rutgers, the State university of New Jersey
 15 Seminary Place
 New Brunswick, NJ 08901

Informed Consent Form
 Rutgers University

Principal Investigator: Elisa Téllez, 15 Seminary Place, New Brunswick, NJ, 08901.
et316@rutgers.edu. Phone: 202-644-0621.

Purpose of the study: The goal of the study is to learn about how different types of speakers use the Spanish language. The results will help us better understand different types of bilingualism. There will be 150 participants in this study.

1. Procedures to be followed: You will be asked to complete a Spanish proficiency test, an oral interview, a preference task, a metalinguistic questionnaire, and a language history questionnaire. In the interview, you will listen to questions and answer them. For the preference task, you will rate sentences in Spanish. For the metalinguistic questionnaire, you will explain how you think you use language. By signing this form, you give your consent for your responses to the interview to be audio recorded.
2. Discomforts and risks: There are no risks in participating in this study.
3. Duration/time of the procedures and study: Approximately two hours.
4. Statement of confidentiality: Your participation in this research is confidential. The data gathered in this study are confidential with respect to your personal identity unless you specify otherwise. Confidential means that the research records will include some information about you and this information will be stored in such a manner that some linkage between your identity and the response in the research exists. Some of the information collected about you includes your full name and age. Please note that we will keep this information confidential by limiting individual's access to the research data and keeping it in a secure location. The data will be stored and secured at the investigators' personal computer (password protected). Paper data will be scanned and then shredded. Audio recordings will be transcribed and deleted. In the event of publication of this research, no personally identifiable information will be shared. The research team and the Institutional Review Board (a committee that reviews research studies in order to protect research participants) at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a professional conference, no identifying names will appear, only group results will be stated. All study data will be kept for three years.

5. Results of the study: If you would like to see the final results of the study, you may contact the investigator at et316@rutgers.edu and request (a) the group results and (b) conclusions drawn from the study. Note that this information may not be available until data collection and analysis has finished.
6. Right to ask questions: Please contact Elisa Téllez at et316@rutgers.edu or 202-644-0621 with questions, complaints and concerns about this research. You may also contact my faculty advisor Nydia Flores at nydia.flores@gse.rutgers.edu, 848-932-0793, or at 10 Seminary Place, Graduate School of Education, Room 223, New Brunswick, NJ 08901. If you have any questions, concerns, problems about your rights as a research participant or would like to offer input, you may contact the IRB Administrator at Rutgers University at:

Arts and Sciences IRB

Rutgers, The State University of New Jersey
Office of Research Regulatory Affairs
335 George Street Liberty Plaza /Suite 3200
New Brunswick, NJ 08901
Phone: [732-235-2866](tel:732-235-2866)
E-mail: humansubjects@orsp.rutgers.edu

The ORSP cannot answer questions about research procedures. Questions about research procedures can be answered by the research team.

7. Payment for participation: After completing all tasks, you will be compensated with \$10 cash. If you withdraw before completing all tasks, you will be compensated \$5.
8. Voluntary participation: Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in this study will involve no penalty.

You must be 18 years of age or older to take part in this research study. If you agree to take part in this research study and agree to the information outlined above, please sign your name and indicate the date below.

Participant's full name

Participant's signature

Date

Principal Investigator's signature

Date

Audio Addendum to Consent form

You have already agreed to participate in a research study that examines how different types of speakers use the Spanish language. The study is conducted by Elisa Téllez. We are asking for your permission to allow us to audiotape (sound) as part of that research study. You do not have to agree to be recorded in order to participate in the main part of the study. The recording will be used for analysis by the research team.

The recording will include your participant code (it will not include your name). If you say anything that you believe at a later point may be hurtful and/or damage your reputation, then you can ask the interviewer to rewind the recording and record over such information OR you can ask that certain text be removed from the dataset/transcripts. The recording will be stored in the principal investigator's password-protected computer and linked with a code to subjects' identity. Audio recordings will be transcribed in the month following the data recording and then will be deleted. The transcriptions will be kept in the principal investigator's personal computer will be linked with a code to subjects' identity. Transcriptions will be kept for three years. In the event of publication of this research, no personally identifiable information will be shared.

Your signature on this form grants the investigator named above permission to record you as described above during participation in the above-referenced study. The investigator will not use the recording(s) for any other reason than that/those stated in the consent form without your written permission.

Subject (Print) _____

Subject Signature _____ Date _____

Principal Investigator Signature _____ Date _____