L2 ACQUISITION OF THE SPANISH SUBJUNCTIVE DISJOINT REFERENCE EFFECT

WITH DESIDERATIVE PREDICATES BY SPEAKERS OF L1 ENGLISH

by

STEVE VAZQUEZ

(Under the Direction of Timothy Gupton)

ABSTRACT

Although English and Spanish share some grammatical structures, they differ in their use of the subjunctive mood. As a result of this difference, the acquisition of the Spanish subjunctive mood remains a significant challenge for English speakers. In English, the use of subjunctive forms is limited and structurally different from its Spanish counterpart, leading to difficulties in mastering Spanish subjunctive constructions, especially in desiderative contexts. The objective of this thesis is to analyze how native English speakers acquire the Spanish subjunctive mood, particularly in desiderative contexts, and to determine if factors such as proficiency level and exposure influence this process. This study employs a combination of picture-based completion tasks and truth-value judgment tasks, administered via the online survey platform Qualtrics XM, to evaluate participants' use of the subjunctive mood. The results will be compared with those of native Spanish speakers to identify specific challenges and patterns in L2 acquisition. By examining these factors, this research aims to contribute to the field of second language acquisition and improve teaching methodologies for complex grammatical structures in Spanish.

INDEX WORDS: L2 acquisition, subjunctive, syntax, transfer, desiderative, disjoint reference, Spanish, English

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STEVE VAZQUEZ

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STEVE VAZQUEZ

Major Professor: Timothy Gupton

Committee: Gary Baker

Sarah Blackwell

Electronic Version Approval:

Ron Walcott

Dean of the Graduate School

The University of Georgia

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CHAPTER 1

INTRODUCTION

1.1 Rationale and aim of the present study

In the growing field of second language acquisition, the study of complex grammatical structures continues to play a pivotal role, particularly those that are widely spoken such as Spanish. The subjunctive mood, an essential and challenging aspect of Spanish grammar, has continuously posed difficulties for learners (Bruhn de Garavito, 1997; Collentine, 1995; Montrul, 2004). In the context of heritage speakers of Spanish, Perez-Cortes (2023) found that heritage speakers frequently substituted the subjunctive mood with morphological alternatives in sentence completion tasks and created phrases that violated disjoint reference in the subjunctive mood.

Based on these findings, the present study aims to shift the focus from heritage speakers to native English speakers who are currently studying or have studied Spanish as a second language. This demographic represents a distinct learning group whose exposure and mastery of the language are influenced by different linguistic and educational backgrounds when compared to heritage speakers. The primary differences lie in the age of acquisition, the type of input received, and the context of learning. Heritage speakers are typically exposed to their heritage language early in life within a naturalistic home environment, often receiving aural input and learning through oral interaction with native speakers. In contrast, L2 learners usually begin learning the language later in life, often around puberty, primarily in an instructed classroom

setting with a focus on written materials (Montrul, 2008). This difference in the timing and mode of input significantly impacts their development.

For instance, Montrul (2008) reports that heritage speakers may exhibit more native-like phonological abilities due to their early exposure, but they might also show variability in morphosyntactic accuracy and may struggle with complex structures that require high levels of literacy and metalinguistic awareness. On the other hand, L2 learners often demonstrate a higher reliance on explicit learning mechanisms and may perform better in tasks that require grammatical accuracy and metalinguistic knowledge.

Consequently, when it comes to the subjunctive mood, both heritage speakers and L2 learners face challenges. As expressed in Lynch (2009), heritage speakers, due to their bilingual environment and dominance of English, often show variability and may substitute subjunctive forms with indicative ones or avoid subjunctive contexts altogether. Their morphosyntactic accuracy can be inconsistent, especially in complex structures requiring high literacy and metalinguistic awareness. On the other hand, L2 learners, who rely more on explicit grammar instruction, generally achieve higher accuracy in controlled tasks but may struggle with spontaneous use.

This thesis examines the acquisition of the Spanish subjunctive mood, particularly in desiderative contexts, by native English speakers who are learning Spanish as a second language. The methodology in this study was adapted from Perez-Cortes (2023), focusing on a Spanish assessment (an abbreviated *Diploma de Español como Lengua Extranjera* (DELE) placement test), a picture-based completion task (PBCT), and a truth-value judgement task (TVJT), which were administered via Qualtrics XM. By following Perez-Cortes's approach we will not only enhance our understanding of subjunctive mood acquisition in a second language (L2) setting,

but also enrich the theoretical constructs surrounding second language acquisition (SLA). The results of this study demonstrate that similarly to Perez-Cortes, heritage speakers of Spanish produce a high amount of variety to the subjunctive mood in desiderative contexts along with demonstrated challenges in interpretation.

1.2 Structure of Thesis

The second chapter examines the subjunctive mood, specifically desiderative constructions and their manifestations in both English and Spanish. The discussion then transitions to previous theoretical accounts of the subjunctive disjoint reference effect in Spanish, ultimately focusing on Kempchinsky's (2009) proposal, which sheds light on important structural differences between Spanish and English, as well as the acquisitional task for the L2 acquirer. Following this, the chapter delves into the generative approach to SLA from a syntactic perspective, concluding with a summary and justification for the study.

Chapter three provides an in-depth exploration of the methodology employed in this thesis study. It includes detailed descriptions of the methodology, along with sample questions from both the PBCT and the TVJT, highlighting the expected responses from participants. Chapter four offers an overview of the data gathered from the participants on Qualtrics XM. Chapter five presents a comprehensive analysis of the data collected, comparing the results to the initial hypotheses. Finally, chapter six concludes the thesis by discussing the study's impact on the field of SLA, identifying areas for improvement, and offering suggestions for future research.

CHAPTER 2

BACKGROUND

2.1 Subjunctive Mood & Disjoint Reference

2.1.1 Subjunctive Mood

The subjunctive mood plays an immense role in languages, including Spanish, as it is utilized to express actions that are possible but not real or certain (Glosario de Términos Gramaticales, 2019: 172) as shown in the following:

(1) *Dora_i quiere   que [pro]_{*i/j} juegue   un poco más.* (Perez-Cortes, 2023:11)

   Dora want.PRS.3SG that   play.PRS.SBJV.3SG a little more.

   'Dora wants her to play a little more.'

(2) *El   decano no cree   que los estudiantes   merezcan*

   The   dean   not believe.PRS.3SG that the students   deserve.PRS.SBJV.3SG

   ... un premio. (Kempchinsky, 2009:1798)

   … a   prize.

   'The dean does not believe that the students deserve a prize.'

(3) *No es posible   que eliminemos   el estrés*

   Not is possible   that eliminate.PRS.SBJV.1PL   the stress

   completamente. (Amores et al., 2024:365)

   completely.

   'It is not possible for us to eliminate the stress completely.'

In these examples, the subjunctive mood is in play as it is being used to express desire (1), doubt (2), and hypotheticals (3). In Spanish, the subjunctive mood can be identified when certain elements are combined, two important elements which are a subjunctive trigger, a predicate in the matrix clause, and the word *que* 'that'.

In this language, various predicates trigger a subordinate clause that contains hypotheticals, demands and wishes. These predicates convey desire, emotive facts, modal verbs, and expressions of doubt, which along with directives and causatives, trigger the use of the subjunctive mood (Villalta, 2008). Consider Villalta's summary of primary triggers for the subjunctive mood:

Table 1. Predicate types that select the subjunctive mood in Spanish (based on Villalta, 2008).

Subjunctive categories:	Subjunctive triggers:
Desire	*querer* 'want', *preferir* 'prefer', *temer* 'fear'
Emotive factive	*lamentarse* 'regret', *alegrarse* 'be glad', *sorprenderse* 'be surprised'
Modals	*ser posible* 'be possible', *ser necesario* 'be necessary'
Expressing doubt	*dudar* 'doubt'
Directives	*ordenar* 'order', *aconsejar* 'advise', *sugerir* 'suggest'
Causatives	*hacer* 'make', *conseguir* 'achieve'
Negation	*dudo* 'doubt', *no creer* 'do not think',
Volitional	*desear* 'desire', *querer* 'want', *pedir* 'ask'

These subjunctive triggers are essential in understanding the broader context in which the subjunctive mood is employed. Each category represents a different aspect of modality and intention, showcasing the richness and complexity of Spanish grammar. I provide sentence-length examples of each category in Table 1 in (4-11).

(4) Desire

Victoria quiere   que Marcela venga   al   picnic. (Villalta, 2008:470)

Victoria want.PRS.3SG that Marcela come.SBJV.3SG to-the   picnic.

'Victoria wants Marcela to come to the picnic.'

(5) Emotive factive

Es   triste que se   vaya   tan pronto. (Faulkner, 2021:358)

Is-is sad   that s/he leave.PRS.SBJV.3SG   so soon.

'It is sad that s/he is leaves so soon.'

(6) Modals

Es   probable que lleguen   a   tiempo. (Laca, 2010:203)

It-is   probable that arrive.PRS.SUBJV.3PL on time.

'It is probable they will arrive on time.'

(7) Expressing doubt

[pro]ᵢ Dudo   que loⱼ hagas. (Faulkner, 2021:147)

[pro]ᵢ Doubt.1SG that it do.SUBJ.SBJV.2SG

'I doubt that you'll do it''

(8) Directives

Claro pidío   a su nieta que llevara   al muchacho

Claro ask.PST.3SG to his niece that take.PST.SUBJ.3SG   the boy

a jugar... (Allende, 2005:95)

to play…

'Claro asked his granddaughter to take the boy to play…'

(9) Causative

[pro] ᵢ Hicieron   que   Armando viniera (Paul-Schuetter & Kirsch, n.a.:205)

[pro] ᵢ made.PST.3PL that Armando ⱼ come.PST.SBJV.3SG

'They made Armando come'

(10) Negation

*No [pro]ᵢ animé   a nadie   que [pro] *ᵢ/ⱼ estudiara   en el*

No [pro]ᵢ encourage.PST.1SG to nobody   that [pro] *ᵢ/ⱼ study.PST.SBJV.3SG in the

extranjero. (Kempchinsky, 2009:1791)

abroad.

'I didn't encourage anyone that s/he study abroad.'

(11) Volitional

Ana quiere   que [pro] ᵢ/ⱼ sea elegida. (Kempchinsky, 2009:1792)

Ana ᵢ want.PRS.3SG. that *[pro] ᵢ/ⱼ* be.PRS.SBJV.3SG chosen.

'Ana wants that (she) be chosen.'

As shown in examples (4)-(11), the complementizer *que* 'that' introduces a subordinate clause. In the subordinate clause, the verb must appear in the subjunctive mood due to a subjunctive trigger which is located in the matrix clause.

An example of this can be found in the desiderative sentence (4). The main clause, *Victoria quiere* 'Victoria wants', expresses a desire on the part of the speaker. The predicate *querer* 'want', a predicate of desire, triggers the use of the subjunctive mood in the subordinate clause, *que Marcela venga al picnic* 'that Marcela come to the picnic'. Without the subjunctive trigger, there is no subjunctive mood. For instance, by changing *quiere* to *sabe* 'knows' in the *Victoria quiere*, the subordinate clause predicate must change from the subjunctive mood (12).

(12) *Victoria sabe   que Marcela viene   /*venga.*

    Victoria know.PRS.3SG that Marcela come.PRS.3SG/*come.PRS.SBJV.3SG.

   'Victoria knows that Marcela is coming/*comes'

As shown in (12), the lack of a subjunctive trigger means that *venir* does not take the present subjunctive form *venga*. Instead, the indicative form *viene* is used, necessitated by the presence of *sabe* in the main clause.

2.1.2 Subjunctive Disjoint Reference Effect (SDRE)

A linguistic phenomenon associated with the subjunctive mood is the subjunctive disjoint reference effect (SDRE) (Kempchinsky 1987, 2009; Quer, 1997). The SDRE, a term coined by Kempchinsky (1987), describes an obligatory disjoint reference between the matrix subject and the subordinate-clause subject in a subjunctive construction. This phenomenon is observed in multiple Romance languages, including Spanish, but not seen in others such as English. In

Spanish, it is particularly associated with desiderative and directive predicates (Kempchinsky, 2009), as illustrated in (13).

(13) *Victoria quiere   que Marcela venga   al picnic.*

Victoria want.PRS.3SG that Marcela come.PRS.SBJV.3SG   to-the picnic.

'Victoria wants Marcela to come to the picnic.'

In sentence (13), the matrix clause contains the subject *Victoria*, while the subordinate clause contains the subject *Marcela*, exemplifying SDRE. The essential factor in SDRE is the presence of two different subjects, which can be overt or null, as seen in (14) with the directive predicate *sugerir* '(to) suggest' (Villalta, 2008:470).

(14) *Victoria$_i$ sugiere   que [pro]$_{*i/j}$ salga   temprano.*

Victoria suggest.PRS.3SG that   leave.PRS.SBJV.3SG   early.

'Victoria suggests that s/he leave early.'

In sentence (14), the subject in the subordinate clause is a null subject [pro].[1] SDRE is indicated by the difference between the subject of the main clause, *Victoria*, and the null subject, as shown by the diacritic index (i). The subordinate clause subject cannot refer to the same subject as the main clause in constructions with desiderative and directive predicates.

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[1] In generative linguistics, [pro] refers to an implicit or null subject with no phonetic content in pro-drop languages, such as Spanish. These languages allow the subject pronoun to be omitted because verb conjugations provide sufficient information to infer the subject (D'Alessandro, 2015; Montalbetti, 1986).

2.2 Desiderative constructions in Spanish and English

2.2.1 Desiderative constructions in Spanish

When it comes to creating constructions of desire in Spanish, there are two routes that are most commonly used for these type of expressions- utilizing an infinitival (3a) or subjunctive complement (3b) as shown below (Perez-Cortes, 2023:3).

(3)a. *Max$_i$ quiere   [PRO]$_{i/*j}$ escribir algo   en la pizarra*

      Max want.3sg PRO write.INF something on the blackboard

      'Max wants to write something on the backboard'

   b. *Max$_i$ quiere   que [pro] *$_{i/j}$ escriba algo   en la pizarra*

      Max want.3sg that pro write.SBJV.3S something   on the blackboard

      'Max$_i$ wants me$_j$/him$_{*i/k}$/her$_m$ to write something on the blackboard'

In (3a), the use of the infinitival form *escribir* allows the subject *Max* to perform the action himself, indicated by the co-referential PRO[2]. This construction, also known as subject

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[2] PRO refers to the implicit subject in non-finite verb clauses (such as infinitives, gerunds, and participles) in languages that employ the concept of "control". In these instances, the subject of the non-finite verb is not explicitly stated in the sentence but is understood to be governed by another element within the same sentence (Camacho, 2018; Montalbetti, 1986).

control, ties the action directly to the subject of the main clause, meaning that *Max* is the one who wants to write something on the blackboard.

In contrast, (3b) employs the subjunctive form *escriba*, which necessitates a different subject in the subordinate clause. This construction introduces a separate subject, which must be understood as someone other than *Max*, to carry out the action of writing. The distinction between the infinitival and subjunctive constructions is crucial for expressing who is expected to perform the desired action. The subjunctive construction introduces the element of SDRE, emphasizing that the subject in the subordinate clause is different from the one in the main clause. On the other hand, the infinitival constructions, as displayed in (3a), are required to be coreferential with itself.

2.2.2 Desiderative constructions in English

When it comes to the production of desiderative constructions in English, the subjunctive disjoint reference is not present. As explained by Perez-Cortes (2023), while Spanish expresses the subjunctive by using a subjunctive clause, as seen in (3b), English opts for the Exceptional Case Marking (ECM) construction, also known as Raising-to-Object. ECM is a syntactic phenomenon where a verb in the main clause assigns case to the subject of an embedded infinitival clause. In languages like English, this results in the subject of the embedded clause appearing in the accusative case, even though it is not the direct object of the verb in the main clause (Pesetsky & Torrego, 2011).

4 a) Owen$_i$ wants PRO$_i$ to play with the shiny red car.

  b) Owen$_i$ wants (for) Zoe/her$_{*i/j}$ to play with the shiny red car.

As explained by Perez-Cortes (2023), while Spanish expresses the subjunctive by using a subjunctive clause, as seen in (3b), English opts for the Exceptional Case Marking (ECM) construction, Raising-to-Object. In such a configuration, the preposition *for* in (4b) can be null or overt. This is understood to mean that *for* licenses the presence of an overt determiner phrase (DP) and assigns it accusative case, such as *Zoe/her*. When it comes to using the infinitive (4a), the subject in the matrix clause, *Owen*, wishes to perform the action himself. By having *PRO to play*, there is a tie between the action and the subject in the matrix clause. On the other hand, by including *for*, there is an introduction for a new subject in the subordinate clause such as *Zoe*, who is then expected to perform the action.

English and Spanish both manage to convey the disjoint reference in different ways using unique grammatical mechanisms. Spanish relies heavily on the subjunctive mood to ensure disjoint reference, while English employs ECM and Raising-to-Object constructions. This divergence illustrates the unique syntactic strategies each language uses to articulate complex relationships between subjects and their actions.

2.3 Theoretical accounts of the subjunctive disjoint reference effect

The SDRE has been a focal point of analysis within various theoretical frameworks, most notably within Chomsky's Binding Theory (Kempchinsky, 1987) and feature-based approaches (Kempchinsky, 2009). Kempchinsky (2009) suggests that the SDRE arises due to the presence of

desiderative and directive predicates within the matrix clause, which are integral to subjunctive mood constructions such as *quiere* 'want' as previously shown in (3b). These predicates introduce an uninterpretable [*u*W] feature that is shared with the Force head in the subjunctive clause. This sharing of features necessitates specific syntactic configurations, particularly the presence of a [+R] person feature in the matrix clause's c-command domain. This [+R] feature is attributed to the subject, regardless of whether it is a noun, pronoun, or null pronoun, upon its initial introduction, as seen in Figure 1.

Figure 1. Syntax tree for the partial matrix clause of (3b) (Based on Kempchinsky, 2009)
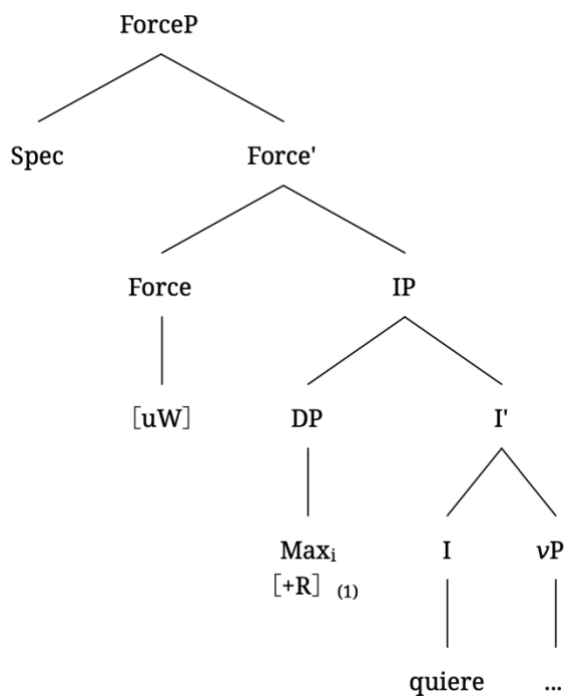
Figure 1 illustrates the positions of the DP Max and the verb *quiere* 'want' following their respective syntactic movements. As discussed earlier, the feature [uW] is shared from the verb

quiere 'wants', which is a desiderative predicate meaning it carries the [uW] feature, to Force through feature sharing. After moving from SPEC *v*P, the DP is then situated in I, as depicted in Figure 1. It possesses the [+R] feature, which [uW] requires the DP to serve as a new reference.

Following Speas (2004) proposal, Kempchinsky utilizes the [W] feature to represent a world or set of worlds, which is introduced in the subordinate clause of the phrase. Kempchinsky (2009) goes on to propose that the [uW] feature in Force necessitates a [W] feature in Mood of the subordinate clause. Similar to [uW], [W] also requires a new reference [+R] within its clause. This results in the presence of two new references: *Max* in the matrix clause and the implicit subject [pro] in the subordinate clause, ultimately leading to the SDRE, as seen in Figure 2.

Figure 2. Syntax tree for the partial subordinate clause of (3b) (Based on Kempchinsky, 2009)
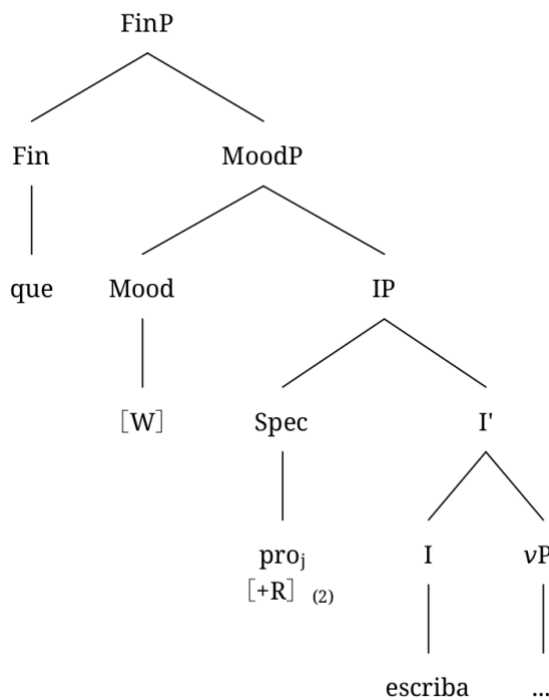
Figure 2 displays the [W] feature in Mood along with the position of the DP, which in this case is the null pronoun [pro], which is located in Spec IP following its movement from SPEC *v*P. As mentioned earlier, it is marked with a [+R] feature as it is required by the [W] feature for there to be a new reference. This necessity ensures that the subjunctive mood maintains a disjoint reference between the subjects of the matrix and subordinate clauses.

By integrating these insights, Kempchinsky (2009) proposes that the distribution of subjunctive complements is driven by the properties of the matrix verb and marked syntactically through feature-checking mechanisms. Subjunctive mood, therefore, emerges as a crucial syntactic marker for introducing new discourse referents. This approach explains the variability in the distribution of subjunctive clauses across different Romance languages and their syntactic behaviors relative to the matrix predicates.

2.4 SLA accounts of the subjunctive mood

2.4.1 Acquisition of the subjunctive mood

Speakers of English as their first language (L1) often find the learning of the Spanish subjunctive to be difficult to acquire even though both languages have the two grammatical moods of indicative and subjunctive (Rabadan, 2006; Whitley, 1986). Spanish L2 speakers who have English as their L1 find the subjunctive mood in Spanish difficult to acquire, as English does not mark mood grammatically as Spanish does (Montrul, 2004).

Bonilla (2014) conducted a study with the goal of determining at what developmental stage certain Spanish grammatical structures are acquired by L2 Spanish learners. The data for

this study were sourced from the Spanish Learner Language Oral Corpus (SPLLOC) (Mitchell et al., 2008), collected by the universities of Southampton, Newcastle, and York in the UK, and accessible via the CHILDES database (MacWhinney, 2000). The corpus includes oral data from learners with L1 English, all of whom have learned L2 Spanish in an instructional setting in the UK. Participants are categorized into three proficiency levels: beginners (N = 7), intermediate (N = 7), and advanced (N = 7). The beginning learners, aged 13–14 years old, had experienced approximately 180 hours of Spanish instruction. The intermediate learners, aged 17–18 years old, had received around 750 hours of instruction. The advanced learners, aged 21–22 years old, had completed approximately 895 hours of instruction plus a year abroad. When comparing the emergence of the subjunctive mood among the beginner, intermediate, and advanced learners, Bonilla (2015) was able to identify signs of subjunctive morphology and subordination during the last stage (stage 5) as depicted in Table 2.

Table 2. Processing procedures applied to Spanish word order & morphology (Bonilla, 2015:56)

Procederes	T1	T2	T3	T4	T5
S'-procedure (EmbeddedS) (Stage 5)	-	-	-	-	Inter-clausal agreement (subjunctive) / Subordinate clauses
S-procedure (Stage 4)	-	-	-	Inter-phrasal agreement (-s) / Target word order (SV-inversion)	+
Phrasal procedure (Stage 3)	-	-	Phrasal agreement (-s) / XP-adjunction	+	+
Category procedure (Stage 2)	-	Lexical morphemes (-s) / Canonical word order	+	+	+
Word / lemma (Stage 1)	'words'	+	+	+	+

This indicates that the subjunctive mood is one of the grammatical structures acquired later in the learning process. The study highlights the complexity of acquiring the subjunctive mood for L2 learners, as it involves understanding both syntactic and morphological rules.

Other research has also shown that the proficiency level of L2 Spanish speakers significantly influences their use of the subjunctive mood, regardless of exposure. In other words, even if L2 Spanish speakers are exposed to the subjunctive, their proficiency determines their confidence and ability to produce it accurately. Gudmestad (2012) examined the subjunctive mood production in L2 Spanish learners at different proficiency levels at the university level. The study involved 60 participants enrolled in a fifth-semester Spanish course at

a public research university. These students had previously been exposed to the subjunctive mood (across several tenses and clause types) in earlier semesters. However, at the time of data collection, the subjunctive had not yet been covered in their current fifth-semester Spanish course, indicating that it was not a recent focus of their studies, thereby minimizing its influence on the data. The study was conducted with these participants mainly because of their expected level of readiness in a cognitively demanding and multilayered task that requires collaboration and the discussion of language, and to determine whether this type of task can contribute to an earlier emergence of subjunctive production in spontaneous and semi-spontaneous contexts. Gudmestad used a combination of oral and written tasks to elicit the use of the subjunctive mood in different contexts. The results showed that the lower-level Spanish speakers rarely used the subjunctive mood, with only 4.1% accuracy in mood alternation contexts. Intermediate learners showed slightly better performance, with an 11.8% accuracy rate. The advanced learners demonstrated a clearer emergence of the subjunctive mood, achieving an accuracy rate of 35.7%. However, even among advanced learners, the subjunctive was not consistently used, highlighting the complexity of the subjunctive mood.

Bonilla (2014) and Gudmestad (2012) underscore the difficulty English speakers face in acquiring the Spanish subjunctive, as their L1 does not grammatically mark mood in the same way. Bonilla's study highlights the late emergence of subjunctive morphology and subordination, while Gudmestad's research reveals the incremental improvement in subjunctive use across different proficiency levels.

Chin (2016) highlights and compares the conclusions of Collentine (1998) and Bruhn de Garavito (1997) on works about the acquisition of the Spanish subjunctive. Both studies

highlight the necessity for L2 learners to master verb inflection and reach the syntactic stage to correctly use the subjunctive mood in Spanish. These studies found that successful use of the subjunctive mood depends on a deep understanding of syntactic structures, not just morphological accuracy. The syntactic stage, as discussed by Collentine, involves a level of language proficiency where learners can process and apply complex grammatical rules within sentences. It requires learners to understand how different elements of a sentence interact syntactically. Collentine's examination of advanced Spanish learners' syntactic and morphological behaviors revealed that the syntactic stage requires advanced proficiency in the target language, findings which have been backed by those reported on in Bonilla (2014) and Gudmestad (2012).

2.4.2 Acquisition of disjoint reference

With respect to desiderative constructions, disjoint reference is needed in order to be grammatical (Kempchinsky, 1987, 2009). When looking at monolingual children and L2 speakers of Spanish, Pérez-Tattam's (2007) results revealed that both learner groups tend to follow a similar trajectory when acquiring co-reference and disjoint reference. Her study reveals that the acquisition of infinitival control constructions precedes the acquisition of subjunctive constructions, supporting the idea that simpler syntactic structures are mastered before more complex ones. Infinitival control constructions require the child to understand and produce an implicit subject (PRO) that is co-referential with the main clause subject. As children progress,

they begin to acquire the ability to use subjunctive mood in complement clauses. This construction requires the child to not only manage reference, but also to handle mood selection.

In a study conducted by Bruhn de Garavito (1997), the primary objective was to investigate how well learners of Spanish as a second language could acquire the obligatory disjoint reference in subjunctive clauses. The study involved participants from two different groups: 15 students from a university in Montreal, Canada, and 28 students from an American university in Wisconsin. The Canadian group came from diverse linguistic backgrounds, while the American group consisted mainly of monolingual English speakers. The methodology used was a truth-value judgment task in which participants were presented with short stories describing particular situations. In each scenario, one of the characters would make a statement, and the participants had to judge whether the statement was appropriate given the context. The sentences were grammatical in isolation but might become inappropriate due to violations of binding constraints, specifically focusing on obligatory disjoint reference in subjunctive clauses.

The results showed a significant difference in performance between the L2 group and the native speakers, who performed at 80-100% accuracy in correctly selecting the disjoint reference. Bruhn de Garavito highlighted that 26 L2 participants performed at or below 50%. Among these, 17 participants scored at or below 20% in correctly accepting the disjoint reference structures, as illustrated in Figure 3.

Figure 3. Distribution of correct responses on disjoint reference (Bruhn de Garavito, 1997:189)

Score	Frequency
100%	9
90%	2
80%	6
70%	0
60%	0
50%	3
40%	3
30%	3
20%	6
10%	6
0%	5

Although it is not revealed which participants were from the American university (English L1) and which were from the Montreal university (French L1), the author points out that "L1 did not seem to be the determining factor, as 4 of the subjects who failed to reject coreference spoke French as a native language. They were, in fact, accepting coreference under circumstances in which it is impossible in French" (173). This indicates that the difficulty in acquiring disjoint reference in the subjunctive mood is not solely related to the linguistic background of the

learners, but may also be influenced by other factors, such as the complexity of the syntactic structures involved and the type of input the learners are exposed to.

Based on Kempchinsky (2009), there are several features necessary for producing structures in the SDR in Spanish. As noted in Section 1.3, these features include: [R], used as a person feature; [W], which functions as a world argument to indicate a new set of possible worlds; and [uW], an uninterpretable feature that requires the presence of [W]. Notably, the feature [R] is found in L1 English learners, where the presence of [+R] is evident in their native language through complex sentences. This observation aligns with Bianchi's (2003) findings, as illustrated in sentence (5).

(5) John$_{i[+R]}$ said to Mary$_{j[+R]}$ that it would be easy to prepare herself$_{j[-R]}$ for the exam. (15)

In (5), the feature [+R] is employed to indicate independent DPs, such as *John* and *Mary*. *Herself*, being anaphoric, is marked with [-R] since it refers to another DP, specifically *Mary*. Uninterpretable features, which are deployed in various contexts, are accessible to L1 English speakers. An instance can be seen in interrogative structures, as discussed by Pesetsky & Torrego (2007), with the uninterpretable question feature [uQ]. A key feature that would be acquired, as proposed by Kempchinsky (2009), is the world feature [W]. The W feature is key, as Kempchinsky (2009) explains, because it represents the different possible worlds or scenarios in which a statement can be evaluated. In addition to that the W feature's position in the syntax

aligns with Force, a projection in the clause structure that indicates this interpretative shift between subjective and other tenses.

When considering the starting point for the syntax of English, the presence of similar features like [R] and uninterpretable features like [uQ] indicates that English speakers have a foundation in the production of the subjunctive disjoint reference in Spanish. Nevertheless, L1 English speakers would still be required to acquire the [W] feature, a feature which is not in English, would be acquired in Universal Grammar, a topic which will be expanded on more thoroughly in section 2.5

2.5 Generative approach to SLA and formalization of the acquisitional task

The generative approach to Second Language Acquisition (GenSLA) focuses on understanding how implicit knowledge of a second language (L2) is represented in the mind and brain of learners (Rothman & Slabakova, 2018). Unlike the L1, which lacks an initial state separate from Universal Grammar, the L2 is understood to base its initial state on the first language acquired as result of linguistic transfer. This could lead to positive and/or negative transfer effects as the speakers L1 grammar becomes the foundation of the L2 grammar (Saville-Troike, 2012 & Schwartz & Sprouse, 1996). Positive linguistic transfer occurs when a grammatical structure or element is the same in both languages, resulting in a correct outcome. Conversely, negative linguistic transfer happens when the grammatical structure differs between the languages, leading to an outcome that violates the linguistic rules of the target language (Valcea, 2020). For instance, negative transfer is evident in French speakers learning English, particularly in their placement of adverbs within sentences. These learners often place adverbs

between the verb and its direct object (e.g., *John takes often the subway*) rather than between the subject and the verb (e.g., *John often takes the subway*). This error arises due to the influence of French word order (e.g., *Jean prend souvent le métro*), where adverbs are obligatorily placed between the verb and the direct object (Bardovi-Harlig & Sprouse, 2017).

Nevertheless, debates among linguists persist regarding whether the transfer that occurs during L2 acquisition is full or partial, as discussed by Schwartz and Sprouse (1996) in their Full Transfer/Full Access (FT/FA) model. The FT/FA model posits that the initial state of L2 acquisition is the final state of L1 acquisition, meaning that all syntactic and morphological properties of the L1 are fully transferred to the L2 initial state. On the other hand, partial transfer hypotheses argue that only certain aspects of the L1 grammar transfer to the L2 initial state. For instance, Vainikka and Young-Scholten's (1996) Minimal Trees hypothesis proposes that only lexical categories and their linear orientation transfer, without functional categories. Eubank's (1993) Weak Transfer hypothesis goes further by suggesting that while lexical and functional categories transfer, the strength of inflection associated with these functional categories does not.

The FT/FA model suggests that complete syntactic structures, minus the phonetic matrices, are transferred from the L1 to the L2. This full transfer includes the entirety of the L1 grammar, which is then subject to restructuring based on the input and constraints from Universal Grammar (UG). In contrast, the Minimal Trees and Weak Transfer hypotheses suggest limited influence from the L1, arguing that only certain grammatical properties or reduced syntactic structures are transferred, leading to a more gradual and partial restructuring process as the learner acquires the L2. Ultimately, the debate revolves around the extent to which the initial state of L2 acquisition is shaped by the learner's L1. Full transfer proponents argue for a more

direct and comprehensive influence, while partial transfer proponents see a more selective

influence, with significant restructuring required to reach native-like proficiency in the L2.

The FT/FA model, aside from suggesting the complete transfer of L1 syntactic structures,

also emphasizes the concept of full access to UG. This full access aspect plays a crucial role,

especially in areas of grammar where the L1 does not provide sufficient structures or features for

transfer. In such cases, learners rely on their innate linguistic capabilities as proposed by UG to

acquire these elements in the L2. This means that when certain grammatical properties are absent

the L1, learners are still capable of developing an understanding of these properties in the L2

through the principles and parameters provided by UG. For example, the L1 English grammar is

not endowed with grammatical gender and therefore cannot transfer any features or values

related to it. Nonetheless, L1 speakers of English have been shown to acquire grammatical

gender in L2 Spanish (Quinn & Cabrera, 2018). UG, a theoretical concept proposed by

Chomsky, explains the innate linguistic knowledge humans possess. According to Chomsky

(2000), grammar acquisition in any language is guided by an inherent structure that is uniquely

linguistic. This implies that not all aspects of language need to be learned from scratch, as some

fundamental principles are already embedded in our cognitive framework (White, 1989).

Consequently, there is an interaction between the input received by the L2 speaker and UG

which is as followed: Input → Universal Grammar → Grammar (White, 1989). This depicts that

anything that is not acquired from input will then go through UG to produce the necessary

grammar structures for the second language (Schwartz & Sprouse, 1996; UG is there to provide

the necessary features that will serve as the framework for the functioning of grammatical

structures. It gives the child advanced knowledge of many complex properties of language, so

that these do not have to be learned solely on the basis of linguistic input or by means of general

learning strategies (White, 1989). This proposal has been supported by the argument from the poverty of stimulus, which posits "that the samples of language available to a child are insufficient to explain the adult's knowledge of language` (Crystal 2008.378). Chomsky (1975) asserts that children create only structure-dependent grammars, despite the input not explicitly signaling this. For instance, children learning English understand that in forming questions, the first auxiliary verb in the main clause should be moved, as in the sentence *Is the man who is tall ___ in the room?* This understanding occurs even though children rarely, if ever, encounter explicit negative evidence against non-structure-dependent questions like **Is the man who ___ tall is in the room?* This supports the argument that children possess innate linguistic knowledge that cannot be solely derived from the linguistic input they receive.

There has been experimental evidence in multiple studies of UG coming into play in the acquisition of a second language, as shown in White (1990). White (1990) investigated learners of English who had an L1 language (Chinese, Japanese, and Korean) that did not utilize wh-movement. For instance, in the Japanese example from White (1990: 129):

5) John-wa dare-o korosita ka

John-top who-do killed Q-particle

'Who did John kill?'

As shown above, wh-questions are not extracted to produce a wh-question, therefore, demonstrating that speakers of Japanese would not have wh-movement in their repertoire Nevertheless, Japanese-speaking learners of English successfully acquire knowledge of the

restrictions of wh-movement. This suggests that UG may provide L2 learners with the ability to acquire linguistic features not present in their native languages (White, 2012).

Another instance of experimental evidence is seen in Yuan (2001), which examined the acquisition of Chinese, which has weak inflection, by French and English L2 learners whose L1 languages have strong and weak inflections, respectively. The study involved French and English learners of Chinese at various proficiency levels, alongside a control group of native Chinese speakers. Participants completed an oral production task and a judgement task to test the positioning of frequency adverbs relative to thematic verbs. Yuan concluded that L2 learners of Chinese could perfectly judge the ungrammaticality of verb-raising in Chinese. These findings suggest that learners can acquire the syntactic properties of the target language without necessarily transferring L1 features, therefore demonstrating the learners' ability to access UG and reset their syntactic parameters.

Experimental evidence (White, 1990; Yuan 2001) supports the involvement of UG in L2 acquisition, particularly when L1 features do not facilitate the acquisition of L2 structures. White's (1990) study demonstrated that Japanese-speaking learners of English could acquire knowledge of wh-movement despite its absence in their L1, suggesting the role of UG in providing the necessary grammatical framework. Similarly, Yuan (2001) examined the acquisition of Chinese, which has weak inflection, by French and English learners whose L1 languages have strong and weak inflections. The study concluded that L2 learners of Chinese could perfectly judge the ungrammaticality of verb-raising in Chinese, indicating that these learners can reset their parameters and access UG to acquire the syntactic properties of the target language. These findings underscore the significance of UG in enabling L2 learners to overcome the limitations of their L1 and successfully acquire complex grammatical structures in the L2.

2.6 Summary & Justification

2.6.1 Summary

The subjunctive mood in Spanish is a grammatical category involving verbal inflections that reflect modality, such as expressing desires, doubts, or hypothetical situations. These inflections encode grammatical differences in speech acts and are often used to convey a range of meanings. The subjunctive mood contrasts with the indicative mood, which is used for stating facts or certainties. Various grammatical categories can trigger the use of the subjunctive mood in Spanish, adding to the complexity of its usage. Different predicates trigger the subjunctive mood in Spanish, including those that convey desire, emotive facts, modals, expressions of doubt, directives, causatives, negation, and volitional expressions. Each of these categories represents different aspects of modality and intention, illustrating the complexity of Spanish grammar.

A linguistic phenomenon associated with the subjunctive mood is the SDRE. This effect, as described by Kempchinsky (1987, 2009), involves an obligatory disjoint reference between the matrix subject and the subordinate subject in a subjunctive construction. This phenomenon is observed in multiple Romance languages, including Spanish, and is particularly associated with desiderative and directive predicates. The presence of two different subjects, whether overt or null, ensures clarity in distinguishing the actions and intentions attributed to different subjects within a sentence structure. In Spanish, desiderative constructions can be approached by two differing angles, using either an infinitival or subjunctive complement. The infinitival construction allows the subject of the main clause to perform the action, while the subjunctive construction requires a different subject in the subordinate clause. In English, SDRE is

communicated differently. While Spanish uses a subjunctive clause, English often employs the ECM construction or Raising-to-Object. This involves using the preposition *for* to introduce a new subject in the subordinate clause, maintaining clarity in disjoint reference scenarios. Despite these differences, both languages manage to convey SDRE, illustrating their unique syntactic strategies to articulate complex relationships between subjects and their actions.

The SDRE has been analyzed within various theoretical frameworks, with this thesis focusing on Chomsky's Binding Theory and feature-based approaches such as Kempchinsky (2009). Kempchinsky (2009) suggests that the SDRE arises due to the presence of desiderative and directive predicates within the matrix clause, which introduce an uninterpretable feature [uW] shared with the Force head in the matrix clause. This sharing necessitates specific syntactic configurations, particularly the presence of a person feature in the matrix clause's c-command domain, which ensures the maintenance of disjoint reference between the subjects of the matrix and subordinate clauses. By integrating this, Kempchinsky (2009) proposes that the distribution of subjunctive complements is driven by the properties of the matrix verb and marked syntactically through feature-checking mechanisms.

Following Kempchinsky's framework, this study aims to test whether L2 Spanish learners have acquired the [W] feature, which they would not have encountered in their L1 (English) due to the lack of such disjoint reference requirements as supported by Bianchi (2003) and Pesetsky & Torrego (2007).

2.6.2 Justification

Although the Spanish subjunctive mood is a difficult concept for English speakers to master, there has been a limited amount of research focused exclusively on this aspect of Spanish grammar. Studies like Perez-Cortes (2023) have highlighted the importance of focusing on SDRE due to its complexity to heritage speakers. In Bruhn de Garavito (1997), which specifically examined SDRE in L2 Spanish learners, the participants were not separated based on their L1, making it difficult to determine which group—L1 French speakers or L1 English speakers—struggled more with SDRE. In terms of works having to do with desiderative structures in Spanish, the work is very limited especially when narrowing it down to Spanish.

CHAPTER 3

METHODOLOGY

3.1 Research Questions

The methodology follows Perez-Cortes (2023) in an effort to elicit the production of the subjunctive mood, with the goal of answering the following research questions:

1) How do native Spanish controls and second language Spanish speakers express subject co-referentiality and disjoint reference in complements of desiderative predicates?

2) In the case of second language Spanish speakers, to what extent does proficiency play a role in their interpretation and production of subjunctive disjoint reference with desiderative predicates?

3) To what extent does second language Spanish speakers' variability at the production level correlate with differential outcomes in interpretation?

As mentioned in Chapter 1, the methodology is composed of a DELE Spanish assessment, PBCT and TVTJ, which were all untimed assessments which were all completed through the online platform Quatrics XM. Combined, these assessments help explore the research questions of this thesis.

3.2 DELE Spanish assessment

The DELE Spanish assessment was the first assessment that participants completed and it was composed of two sections: a multiple-choice section and a CLOZE test. The fifty question multiple-choice section of the DELE Spanish assessment contains thirty questions designed to

evaluate various aspects of Spanish language proficiency, such as vocabulary, grammar, and contextual understanding through multiple choice. Each question presents a sentence with a blank space, and the test-taker must select the word or phrase from four given options that best fits the context of the sentence.

For instance, one question asks, *Al oír del accidente de su buen amigo, Paco se puso _____* 'Upon hearing about his good friend's accident, Paco became', with the options *alegre* 'happy', *fatigado* 'tired', *hambriento* 'hungry', and *desconsolado* 'heartbroken'. This type of question assesses the test-taker's ability to recognize and appropriately use adjective vocabulary. Another question might be, *No puedo comprarlo porque me _____ dinero* 'I can't buy it because it _____ money', with options like *falta* 'lack', *dan* 'give', *presta* 'lend', and *regalan* 'gift', testing the participant's grasp of verbs and their appropriate contexts.

The CLOZE test, on the other hand, assesses the participant's ability to understand and produce coherent text by filling in missing words within a passage. This particular CLOZE test includes a passage of four Spanish paragraphs, with twenty blanks to be filled in. Each blank has three multiple-choice options, and the participant must select the word that best completes the passage in a grammatically and contextually appropriate manner. For example, the passage included the sentence, *El sueño de Joan Miró se ha _____* (1) 'Joan Miró's dream has come true _____', with options like *cumplido* 'fulfilled', *completado* 'completed', and *terminado* 'finished'. Another example might be, *El proyecto ha tenido que _____ (5) múltiples obstáculos de carácter administrativo*'. The project has had to _____ (5) multiple administrative obstacles', with options like *superar* 'overcome', *enfrentarse* 'face', and *acabar* 'end'.

Overall, the DELE Spanish assessment rigorously evaluates a candidate's proficiency in the Spanish language, ensuring a comprehensive understanding and the ability to use Spanish effectively in various contexts.

3.3 PBCT

The second assessment that the participants of the study completed was the PBCT. This section was composed of forty-four PBCT items: twenty-two target items and twenty-two distractors. The PBCT items were formatted to include various desiderative scenarios designed to elicit responses that reflect participants' understanding of subject co-referentiality and disjoint reference in desiderative constructions. These scenarios provided contexts where participants were prompted to complete sentences or judge the truth-value of statements involving subjunctive and infinitival complements.

Figure 4. Indicative sample item of the PBSC, Spanish (based on Perez-Cortes, 2023)

Un doctor está hablando con su enfermera. El doctor dice:

Pido disculpas por hacerte esperar.

El doctor quiere _____ (ser) más puntual.

Figure 5. Translation of Figure 4

A doctor is talking to his nurse. The doctor says:

I apologize for making you wait.

The doctor wants _____ (be) more punctual.

In this study, each PBCT scenario presented participants with a short narrative followed by a character's dialogue, as shown in Figures 4. This dialogue provided context to help participants decide whether the verb in the completion task should be in the indicative or subjunctive mood. The expectation is that participants performing in a target-like manner would choose to write the indicative mood when the verb refers to the same subject as the main clause, while the subjunctive mood would be written when the verb refers to a different subject, indicating a disjoint reference.

Figure 4 is an example of a target indicative PBCT used in this study. In the image, a doctor is talking to his nurse, and the speech bubble contains the doctor's statement: *Pido disculpas por hacerte esperar*, which translates to 'I apologize for making you wait'. Here, the doctor is expressing his own desire to be more punctual. Since the subject of both the main *clause El doctor quiere* and the infinitive clause *ser más punctual* is the same, the verb should be in the indicative form. This lack of subject change means there is no need for the subjunctive mood, which would otherwise indicate a different subject. Thus, in this scenario, the correct completion of the sentence is *El doctor quiere ser más puntual*. This illustrates how participants in the study used contextual clues from the character's dialogue to determine the appropriate verb form.

What is also noteworthy is that the PBCT has two versions of each scenario: one where the dialogue refers to oneself, eliciting the indicative, and another where the dialogue refers to another individual, which would elicit the subjunctive mood due to the disjoint reference, as shown in Figure 6.

Figure 6. Subjunctive sample item of the PBSC (based on Perez-Cortes, 2023)

Un doctor está hablando con su enfermera. El doctor dice:

Por favor, no vuelvas a llegar tarde, Jessica.

El doctor quiere _____ (ser) más puntual.

Figure 7. Translation of Figure 6

A doctor is talking to his nurse. The doctor says:

Please don't be late again, Jessica.

The doctor wants _____ (be) more punctual.

As explained above, Figure 6 keeps the general information the same, with the exception of the speech given by the doctor being different. Additionally, by removing *que* 'that', participants have to determine on their own, based on the scenarios, whether to complete the sentence to reflect the indicative or the subjunctive mood instead of solely relying on *que* 'that' to dictate their use of the subjunctive mood.

For example, in Figure 6, the phrase *Por favor, no vuelvas a llegar tarde* 'Please, don't be late again' is addressed to Jessica. This contrasts with its indicative PBCT counterpart, *Pido disculpas por hacerte esperar* 'I apologize for making you wait' as seen in Figure 4. The difference is that Figure 6 creates a scenario where the doctor is directly asking Jessica not to be late again. Since the doctor is referring to Jessica's punctuality, the verb in the sentence completion should appear in the subjunctive mood due to the change in subject. Therefore, the correct completion for this scenario would require the subjunctive form: *El doctor quiere que Jessica sea más puntual*.

The verbs and scenarios used in this study were heavily based on the work of Pérez-Cortés (2023), which this thesis aims to replicate. These verbs and scenarios are listed in Appendix 1. However, as will be discussed in the final chapter, there were several errors in the creation of the Qualtrics survey. One PBCT scenario was repeated twice, resulting in 12 PBCTs with disjoint reference and the absence of one of the co-reference PBCT prompts. This error led to a final product of twenty-two target PBCTs, with 12 disjoint references (with one scenario repeated) and 10 co-references. The decision that lead to keeping the repeated scenario was the fact that some participants created different responses the second time around.

3.4 TVJT

The TVJT, the last assessment given to the participants, was designed to assess participants' understanding and interpretation of specific linguistic constructions. This untimed task on Qualtrics XC involved presenting participants with scenarios that include target sentences, which they must judge as either true or false based on the given context as shown in Figure 8 and 9.

Figure 8. Disjoint reference; true (Based on Cortez-Peres, 2023)

La frase anterior es:

○ Verdadera

○ Falsa

Figure 9. Translation of Figure 8 (Based on Cortez-Peres, 2023)
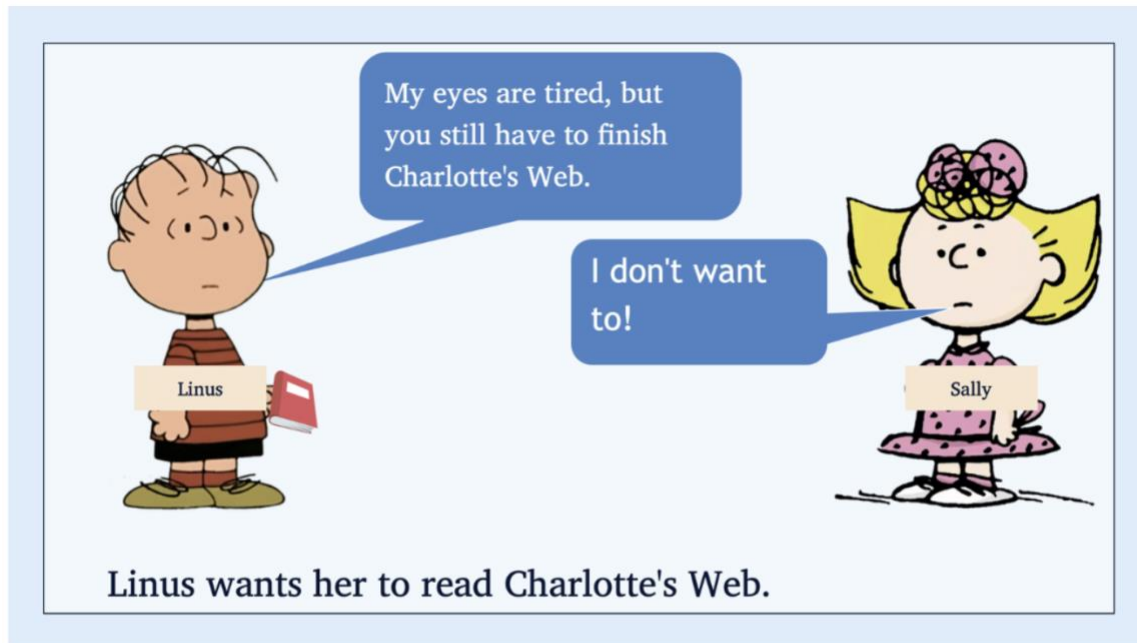
The sentence before is:

○ True

○ False

As shown in Figures 8 and 9, the target sentence of all the conditions has its subordinate subject null. This means that the participant would have to heavily depend on the dialogue between the characters and the context provided to determine the correct referent of the null subject. In the example from Figure 8, we see Linus expressing a desire that Sally continue reading "Charlotte's Web." The sentence *Linus quiere que lea Charlotte's Web* uses a null subject in the subordinate clause, where *lea* (subjunctive form of the verb *leer*) indicates that the subject of the verb *lea* is

different from the subject of the main clause Linus. This creates a disjoint reference context,

where Linus is not the one who will read the book; instead, it is Sally, as interpreted from the

dialogue.

Table 3. Sample conditions of the TVJT

Condition	Context	Target Sentence
1. Co-referential (infinitival complement; true) k=3	Bugs: Nuestros sábados nunca son tan aburridos. ¡Hagamos algo divertido! Daffy: ¡Nunca he visitado la luna! 'Bugs: Our Saturdays are never this boring. Let's do something fun! Daffy: I have never visited the moon!'	Daffy quiere viajar a la luna. 'Daffy wants to travel to the moon.'
2. Disjoint reference (subjunctive complement; true) k=3	Dora: Estoy cansada de jugar, pero tú debes quedarte, ¡aún tienes energía! Boots: Buena idea. ¡Gracias, Dora! 'Dora: I'm tired of playing, but you should stay, you still have energy. Boots: Good idea. Thanks, Dora!'	Dora quiere que juege más. 'Dora wants (Boots) to play for a little longer.'
3. Co-referential (subjunctive complement; false) k=3	Yakko: Pondré mi bicicleta a la venta. Sin embargo, debes conservar la tuya porque la usas. Wakko: ¡Tienes razón! 'Yakko: I will put my bike up for sale. However, you should keep yours because you use it. Wakko: You're right!	Yakko quiere que venda su bicicleta. 'Yakko wants (Wakko) to sell his bike.'
4. Disjoint reference (infinitival complement; false) K=3	Yosemite: ¡No puedo comer pastel de zanahoria! Te lo comes, conejo. Bugs: ¡Delicioso! 'Yosemite: I can't eat rabbit cake! You eat it rabbit! Bugs: Delicious!'	Yosemite quiere comer pastel de zanahoria. 'Yosemite wants toe at carrot cake)

As modeled in Table 3, there was a total of twenty-three TVJT with twelve being target assessments and eleven distractors. The condition of the target assessments is that the three were evenly divided into co-referential (infinitival complement true), disjoint reference (subjunctive complement true), co-referential (subjunctive complement false), disjoint reference (infinitival complement false).

3.5 Participants

The study observed the responses of thirty-one participants, comprising seven native Spanish speakers and twenty-three L2 Spanish speakers. Each participant provided background information, including their age, the age at which they began learning English and Spanish, the number of years they studied English and Spanish as foreign languages, and the highest level of Spanish courses completed. This information was used to determine eligibility, excluding those enrolled in lower-level Spanish courses that traditionally do not cover the subjunctive mood. Additionally, participants had the option to provide their email address along with their home address to receive a $10 compensation. However, this information did not directly influence how the results were handled.

The native Spanish speakers' ages ranged from thirty-one to fifty-one years (*mean [M] = 40.43*), and they were exposed to English between the ages of four and ten (*M = 6.42*). Their duration of studying English as a foreign language ranged from twelve to twenty-one years (*M = 18.14*). Educationally, five out of seven participants had completed a Master's degree, while the remaining two had attained a PhD, MD, or JD.

Conversely, the L2 Spanish speakers' ages ranged from twenty to forty-five years ($M =$ *28.38*). They began learning Spanish between the ages of three and nineteen ($M = 11$), with their years of studying Spanish as a foreign language ranging from zero to sixteen ($M = 5$). Their educational backgrounds varied: one had completed high school, five had undergraduate degrees, fourteen had Master's degrees, and four had PhD, MD, or JD degrees.

As broken down in Section 3.2, the participants partook in a Spanish assessment which helped determine the spectrum of the participants. The results of both of the participant groups are shown in Table 4.

Table 4. Participant's Results from DELE Test

Group	M	Range
Native Speakers	48.43	44-50
L2 Spanish Speakers	39.25	14-50

In line with Perez-Cortes (2023), this thesis will not categorize speakers by their linguistic abilities. This will allow us to conduct statistical analysis as to whether target-like production and interpretation correlate with a rise in proficiency level. Instead, it will adjust to Leal's (2018) recommendations on statistical analysis in linguistic research, treating proficiency as a continuous variable.

CHAPTER 4

RESULTS

4.1 DELE Results

As mentioned previously, the participants involved in the study were not divided into proficiency groups. Nevertheless, their results on the DELE assessment will help better understand the effect of proficiency on the DELE in relation to the PBCT and TVJT.

4.1.1 Native Spanish speaker DELE results

Figure 10. Native Spanish speakers' DELE result plot
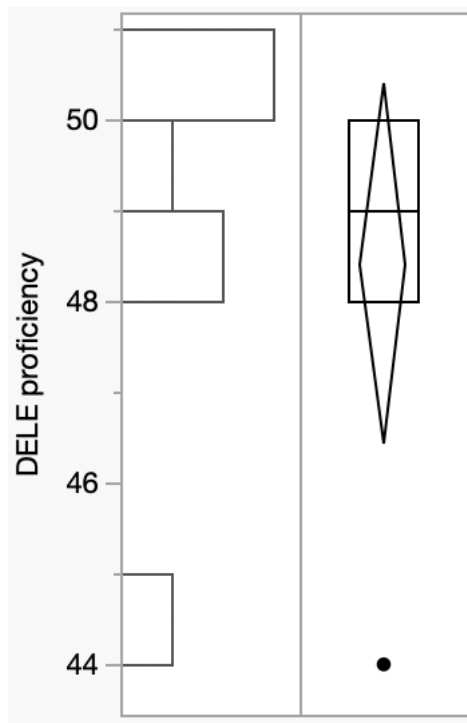
Figure 10 displays the frequency of scores obtained by the native speakers of Spanish. The scores predominantly cluster around the higher end, with the majority of participants scoring between 48 and 50. This indicates a high level of proficiency, based on the DELE assessment, among the native speakers. The median score is 49, demonstrating that half of the native speakers scored above this mark and half below. The boxes to the right of the histogram represent a violin plot, which combines aspects of a box plot and a density plot. It shows the distribution shape of the data, with the width of the plot indicating the frequency of scores at different proficiency levels. The interquartile range (IQR), which is seen in the box's height, spans from 48 to 50, capturing the middle 50% of the scores. This narrow range indicates relatively low variability in the scores. The standard deviation in the results of the DELE proficiency assessment for native speakers is 2.149197, suggesting that the scores of native speakers are relatively close to the mean score of 48.428571. Finally, the singular dot located horizontal to score 44 represents an outlier. Overall, these statistics reflect the expected high proficiency levels of native Spanish speakers on the DELE assessment.

4.1.2 L2 Spanish speaker DELE results

Figure 11. L2 speakers' DELE result plot
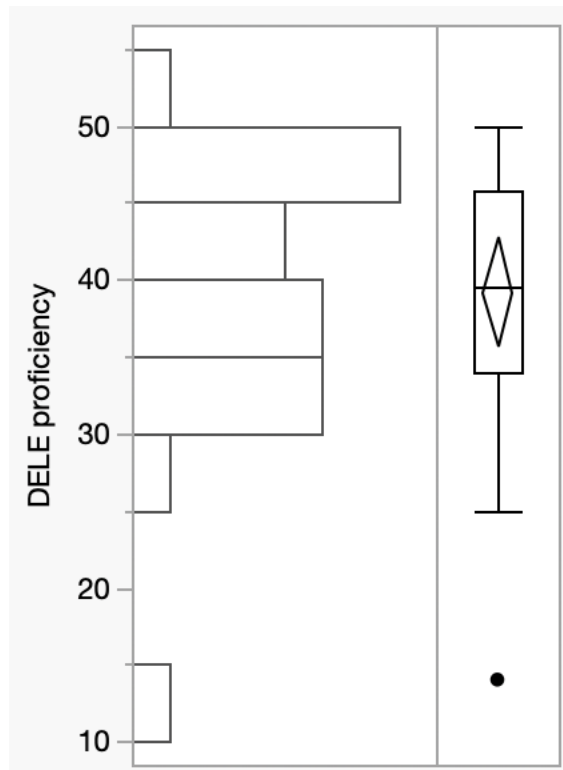
Figure 11 illustrates the frequency of scores obtained by the L2 Spanish participants on the

DELE proficiency assessment. Unlike the native speakers, the scores of these participants are

more widely distributed across the range. The participants' scores vary significantly, with notable

frequencies at both the lower and higher ends, indicating a broader range of proficiency levels.

The minimum score is 14, while the maximum score remains 50, showing that some participants

achieved perfect scores, while others scored much lower, as seen with a participant scoring a 14.

This distribution suggests a more diverse group in terms of proficiency, with some participants performing exceptionally well and others poorly.

The median score of the L2 Speakers is 39.5. The IQR spans from 34 to 45.75. This broader range indicates higher variability in the scores compared to the native speakers, which was 46 to 50. The mean score is 39.25, with a standard deviation of 8.4300188. The larger standard deviation indicates a greater dispersion of scores around the mean, reflecting the variability in proficiency levels among the participants. The outlier with this particular group was the participant who scored a 14, the second lowest score was a 25.

4.2 PBCT Results

4.2.1 Native Spanish speakers' PBCT results

The objective of this task was to examine how native Spanish speakers and L2 speakers express subject co-reference and disjoint reference within Spanish desiderative constructions.

Table 5. Distribution of Native Spanish speakers' responses (WS=wrong subject, IC=incorrect conjugation)

	Disjoint Context	Co-reference
Querer + que + subj *quiere que sea*	73.81% 62/84	4.49% 3/70
Querer + infinitive *quiere ser*	9.52% 8/84	92.86% 65/70
Querer + que + WS + subj *quiere que yo sea*	9.52% 8/84	0% 0/70
Querer + subj *quiere sea*	3.57% 3/84	1.43% 1/70
Querer + IC *quiere dar* (decir)	1.19% 1/84	1.43% 1/70
Querer + que + subj + a *quiere que vayan a*	2.38% 2/84	0% 0/70

The PBCT results reveal that native Spanish speakers exhibit a high level of proficiency in distinguishing between contexts requiring subjunctive versus infinitive forms. Specifically, 73.81% of responses in disjoint reference contexts correctly utilized the subjunctive mood along with having the correct subordinate subject (explicit or null), and 92.86% of responses in co-reference contexts accurately employed the infinitive form.

Despite the overall proficiency, there are notable instances of variability and errors. The relatively low percentages of incorrect responses (using incorrect conjugations, unnecessary subjects, or the wrong mood) are indicative of occasional lapses in grammatical application. For instance, 9.52% of responses in disjoint contexts included an incorrect subject (e.g., *quiere que yo sea*). While this might not appear ungrammatical, none of the prompts were soliciting the use of the first-person subjunctive but rather the third person. Therefore, any instances of first-person subjunctive were incorrect given the context of the prompts. These findings align with previous research (Perez-Cortes, 2023), which has consistently shown that while native speakers generally

possess high proficiency in using subjunctive and infinitive forms, variability and errors can occur, particularly in complex syntactic constructions.

4.2.2 L2 Spanish speakers' PBCT results

The PBCT results for L2 Spanish speakers, as detailed in Table 6, provide a comprehensive look into their proficiency in distinguishing between contexts requiring subjunctive versus infinitive forms in Spanish desiderative constructions.

Table 6. Distribution of L2 Spanish speaker participant responses (WS=wrong subject,

IC=incorrect conjugation, PPI= present perfect indicative, PI= present indicative, FC= fabricated

conjugation)

	Disjoint Context	Co-reference
Querer + que + subj *quiere que sea*	67.71% 195/288	6.67% 16/240
Querer + infinitive *quiere ser*	23.61% 68/288	87.08% 209/240
Querer + que + WS + subj *quiere que yo sea*	3.13% 9/288	0% 0/240
Querer + subjunctive *quiere sea*	0.69% 2/288	0.42% 1/240
Querer + IC *quiere dar (decir)*	0.69% 2/288	0.83% 2/240
Querer + que +infinitive *quiere que hacer*	0.35% 1/288	1.67% 4/240
Querer + future tense *quiere comprara*	0.69% 2/288	0.42% 1/240
Querer + que + present tense *quiere que tiene*	0% 0/288	0.42% 1/240
Querer + PPI *quiere haber viajado*	0% 0/288	0.42% 1/240
Querer + conditional *quiere escogería*	0.35% 1/288	0.42% 1/240
Querer + present conjugation *quiere toman*	1.04% 3/288	0% 0/240
Quiere + que + future tense *quiere que compraran*	0.35% 1/288	1.25% 3/240
Quiere + reflexive *quiere tomarse*	0% 0/288	0.42% 1/240
Quiere + que + PI *quiere que comen*	1.04% 3/288	0% 0/240
Querer + FC *quiere dician (decir)*	0.35% 1/288	0% 0/240

The percentage of correct responses (67.71%) where L2 speakers used the subjunctive mood in

disjoint reference contexts, such as *quiere que sea*, shows that over half of the participants

correctly identified when the subordinate clause required a different subject and thus the subjunctive form. However, the substantial minority (23.61%) that incorrectly used the indicative form (*quiere ser*) in these contexts reveals a potential confusion between the indicative and the subjunctive.

Additionally, 3.13% of responses included a redundant wrong subject (*quiere que yo sea*), which, while maintaining the subjunctive mood, reflects an incomplete use of disjoint reference requirements. This redundancy introduces unnecessary elements into the sentence, indicating that while participants recognize the need for the subjunctive, they struggle with avoiding co-referential subjects. Similarly, 0.69% of responses showed impartial use of the subjunctive without the complementizer *que* (*quiere sea*).

Instances of incorrect conjugation were rare, with 0.69% of responses using forms like *quiere dar* (*decir*). Similarly, rare instances of using the infinitive with *que* (0.35%) and future tense forms (0.69%) in disjoint contexts reflect specific areas of grammatical confusion.

In co-reference contexts, the correct use of the infinitive form in 87.08% of responses (*quiere ser*) shows a lower percentage in comparison to their native counterpart. As shown in Table 6, 6.67% of responses incorrectly used the subjunctive mood (*quiere que sea*) in phrases of the co-reference and the indicative was needed. Nevertheless, instances of using incorrect forms were more minimal in their diversity than their subjunctive counterpart responses. The 0.83% of responses with incorrect conjugation (*quiere dar*) and 1.67% using *que* with the infinitive (*quiere que hacer*). Additionally, rare errors involving the future tense (0.42%), present tense (0.42%), and present perfect indicative (0.42%).

4.3 TVJT Results

4.3.1 Native Spanish speakers' TVJT results

To reiterate, the 12 TVJT consisted of four different types of questions: co-reference (true), co-reference (false), disjoint subject (true), and disjoint subject (false). The first two conditions that is examined in Figure 12 and Figure 13 respectively are co-reference (true) and (false).

Figure 12. Native Spanish speakers' co-reference (true) responses
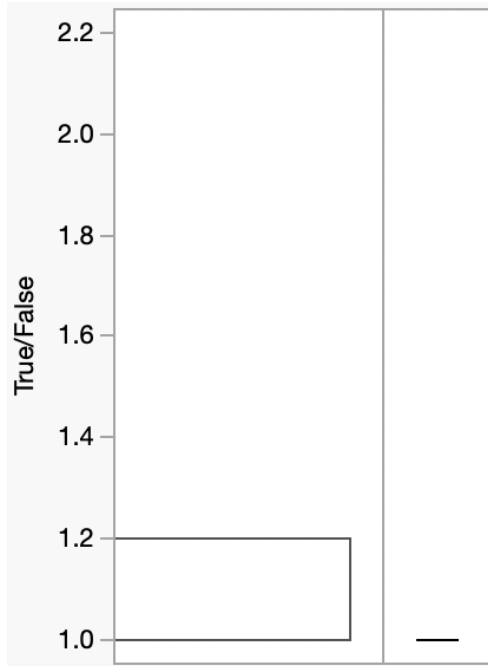
Figure 13. Native Spanish speakers' co-reference (false) responses
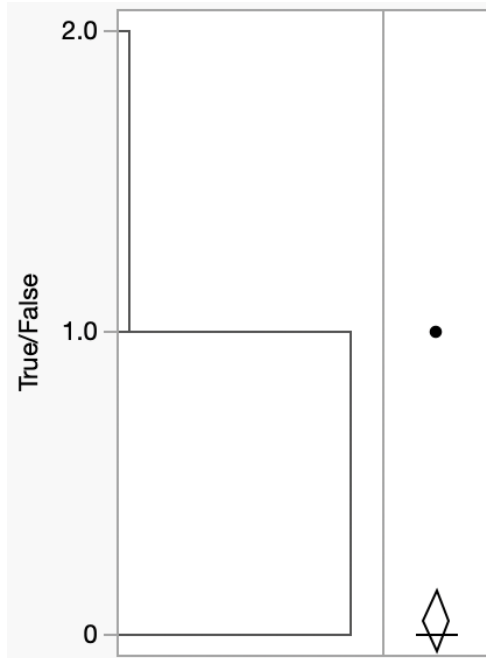
Starting off, Figure 12 presents the responses of native Spanish speakers to a co-reference true/false question where the ideal response was true. JMP Pro 17, a statistical breakdown software, turns the results into a plot where a response of 1 indicates "true" and a response of 0 indicates "false." Ideally, participants would answer with 1 (true) for correct co-reference responses. The bar chart shows that all responses are clustered at 1, indicating that every native Spanish speaker correctly identified the co-reference as true. There are no responses at 0, suggesting complete agreement among the participants.

The box plot confirms this uniformity, essentially represented by a single line at 1, indicating no variability in the responses. The median and all quantiles are at 1, which means that 100% of the responses are 1. The mean response is 1, with a standard deviation of 0, indicating no variability in the responses.

In Figure 13, the median response is 0, indicating that more than half of the participants answered correctly. The IQR displays that the middle 50% of the responses are concentrated at 0, reinforcing the fact that most of the native Spanish participants responded correctly. The mean response is 0.047619, with a standard deviation of 0.218217. The relatively low mean and standard deviation indicate that the majority of responses were correct (false), but there is some variability due to the incorrect (true) responses. As shown in Figure 13, the single outlier was a a single response for true (1).

Figure 14. Native Spanish speakers' disjoint reference (true) responses
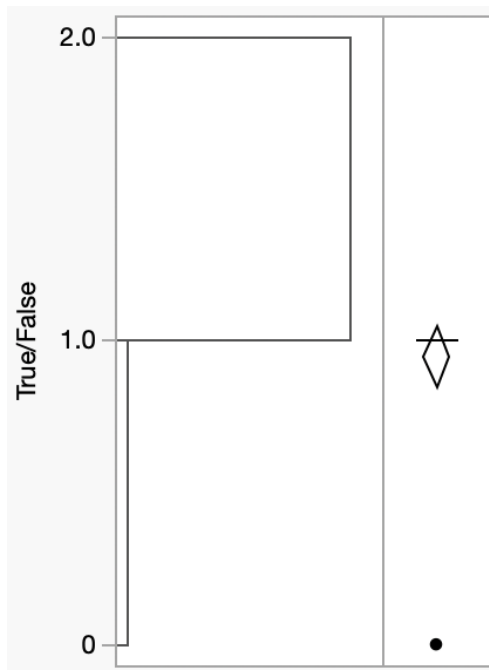
Figure 15. Native Spanish speakers' disjoint reference (false) responses
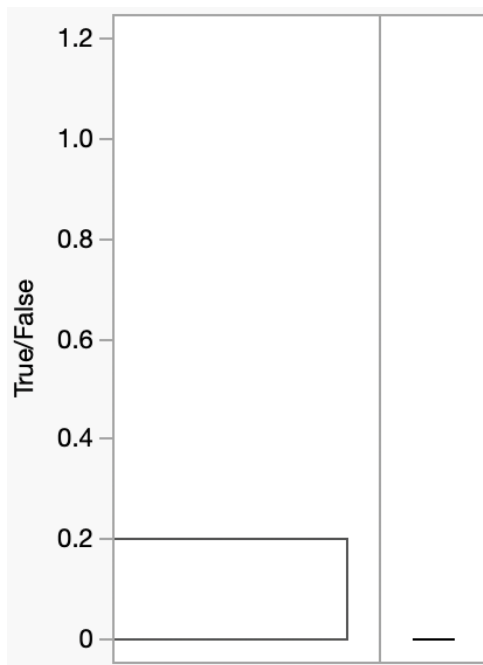
When putting the disjoint reference set under a microscope for native Spanish speakers, we observe a pattern similar to their responses for co-reference questions in terms of correctness. Figure 14 demonstrates a clear indication that the native Spanish speakers selected the correct response (1), with a median value of 1. The mean response is 0.952381 with the standard deviation of this section being 0.218217. This pattern underscores the strong proficiency of native speakers in identifying disjoint references accurately.

Following this, the disjoint reference false (0) responses, as shown in Figure 15, also demonstrate a high level of accuracy. Just as in Figure 12, the bar chart illustrates that all responses are isolated around the correct answer, 0, indicating a high level of correctness. With a standard deviation of 0, indicating no variability in the responses. These graphs highlight the

native speakers' strong grasp of disjoint references, affirming their proficiency and understanding in distinguishing true and false statements in these contexts.

4.3.2. L2 Spanish speakers' TVJT results

Shifting focus to the responses from L2 speakers for co-reference true questions, Figure 16 provides an insightful comparison. The bar chart shows a dominant cluster at 1, indicating that most L2 speakers correctly identified the co-reference as true. The box plot confirms this trend, with the median value at 1, and the interquartile range indicating that the middle 50% of responses were correct. However, there is a slight increase in variability compared to native speakers, as shown in figure 12, as reflected by some responses (5) at 0 in figure 16. The mean response is 0.929577, with a standard deviation of about 0.257678.

Figure 16. L2 Spanish speakers' co-reference (true) response
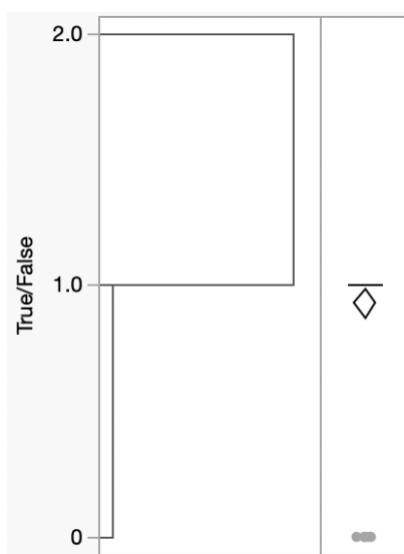
Figure 17. L2 Spanish speakers' co-reference (false) response
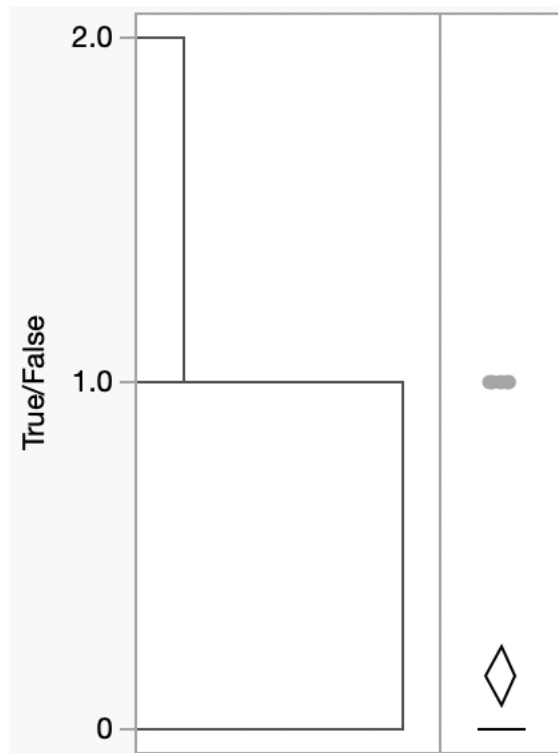
Now, looking at the responses for the co-reference false for the L2 Spanish speakers, we observe that most of the participants selected false, which is 0. The bar chart shows that the majority of responses are clustered at 0, indicating that most L2 speakers correctly identified the co-reference as false. The mean is approximately 0.075757 with a standard deviation of 0.266637.

Moving in the disjoint reference set, Figure 18 shows how L2 Spanish speakers responded to disjoint reference; true (1).

Figure 18. L2 Spanish speakers' disjoint (true) response
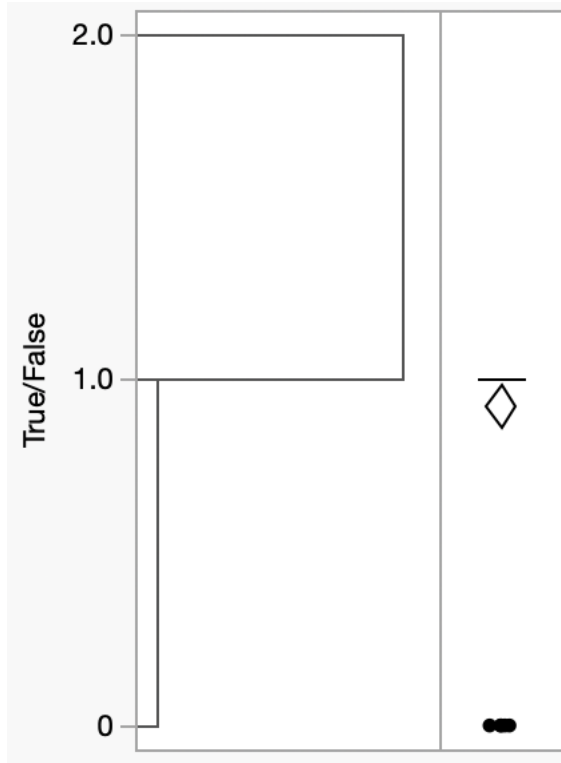
The mean response of figure 18 is 0.929577, with a standard deviation of 0.257679. This high mean and modest standard deviation suggest that while the majority of L2 speakers correctly identified the disjoint reference as true, there is still some degree of error in this group of participants.

On the other hand, with the disjoint reference false, the responses from L2 Spanish speakers show a clear preference for the correct answer.

Figure 19. L2 Spanish speakers' disjoint (false) response
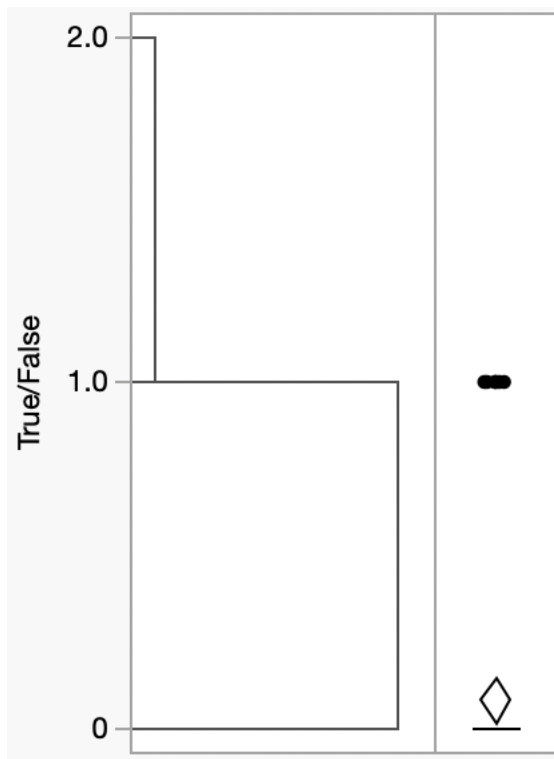
 The bar chart indicates that the majority of responses are clustered at 0, suggesting that most

participants correctly identified the disjoint reference as false. The box plot reinforces this

observation, with the median value at 0 and the interquartile range indicating that the central

50% of responses are also at 0. The low mean score of 0.07219 and the standard deviation of

0.27655 reflect that while the majority of L2 speakers correctly understood the disjoint reference

false concept, nevertheless, a small proportion of incorrect responses indicates some variability

in their understanding.

CHAPTER 5

DISCUSSION

5.1 General Discussion

Before solely focusing on the research questions, it is beneficial to highlight some key aspects of the investigation. First and foremost, as observed in Section 4.3.2, a significant portion of the errors made by L2 Spanish speakers in the Truth Value Judgment Task (TVJT) were due to their tendency to select "true" in co-reference TVJT situations where the correct response should have been "false." Specifically, among the L2 Spanish speakers, 11 out of 25 mistakes, or 44%, were due to their inability to correctly interpret a false co-reference. An example of a false co-reference is shown in Table 3. This finding suggests a particular area of difficulty for L2 Spanish learners in distinguishing between co-referential true and false scenarios. The prevalence of this error type highlights the need for instructors to provide more targeted instructional strategies to improve learners' comprehension and accurate interpretation of co-referential contexts.

Another significant highlight is the fact that the two participants in the study who scored a perfect 100 in all of the target prompts (both in the PBCT and in TVJT) were L2 Spanish speakers. This evidence aligns with Saville-Troike's (2012) assertion that with the right conditions, including sufficient time, educational resources, and motivation, L2 learners can attain a level of proficiency that enables them to perform linguistic tasks indistinguishably from native speakers. This finding is particularly noteworthy because it underscores the potential for L2 learners to achieve proficiency levels comparable to those of native speakers. Unlike the other participants, even the native Spanish speakers, who all made errors in either the

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identification or creation sections of the PBCT or TVJT, these two individuals demonstrated flawless performance across all tasks. The achievement of these two participants serves as an inspiring example for L2 learners and educators, emphasizing the importance of sustained effort and advanced academic training in reaching high levels of language proficiency.

Some of these exemplary participants had been studying Spanish as a second language for twelve years, while the other had six years of learning experience. Both participants had attained Master's Degrees, highlighting the role of sustained, advanced education in achieving high proficiency in a second language. Their success reiterates the possibility for L2 speakers not only to reach but also to perform at native speaker levels, reinforcing the idea that with sufficient dedication, exposure, and academic rigor, non-native speakers can master complex linguistic structures typically associated with L1 speakers. What follows this section is a more detailed examination of other observations along with a analysis which focuses on the research questions which were presented in Section 3.1.

5.2 Research Question 1

When examining how the native Spanish speakers and L2 Spanish speakers express co-reference and disjoint reference, the results of the PBCT must be revisited. When referring back to Table 5, the results from the completion task, 73.81% of the native Speaker's responses in the disjoint reference were grammatically correct as they not only followed the *que* + subjunctive structure but the subject in the subordinate clause was disjoint from the subject in the matrix clause. When further inspecting the results from the disjoint reference effect, only 1 participant

in the control group incorrectly produced the disjoint reference in desiderative clauses as shown in Table 7.

Table 7. Native Spanish speakers' selection of disjoint reference

Participant	Correct selection of disjoint reference
Native participant 1	9/12
Native participant 2	10/12
Native participant 3	11/12
Native participant 4	2/12
Native participant 5	10/12
Native participant 6	9/12
Native participant 7	11/12

This could suggest that native Spanish speakers have a robust understanding and consistent application of the grammatical rules governing disjoint reference in desiderative clauses. Their high accuracy rates indicate that they can intuitively navigate the complexities of these structures, likely due to their extensive exposure and practice with the subjunctive mood in everyday language use.

However, it is important to note the outlier in this group, Native participant 4, who only achieved a 2/12 correct selection rate for disjoint reference. This participant did score near perfect in the DELE (49, indicating a high level of proficiency in Spanish. The reasons for this participant's lower performance in this specific task could be varied, including potential misunderstanding of the task, momentary lapse in applying the grammatical rules, or other individual differences. Despite 26.19% of the total Native speakers' responses being alternatives

to the subjunctive mood, there was not a significant variety of structural types. As shown in Table 5, these "alternative" grammar structures largely appeared to be errors in attempting to produce the subjunctive mood in some form. Specifically, 9.52% had the correct structure but the wrong subject, 3.57% used the correct subjunctive mood but omitted the *que* 'that,' and 2.38% included all necessary elements for the subjunctive disjoint but incorrectly added *a*. Additionally, 9.52% used the infinitive instead of the subjunctive, and 1.19% had an incorrect conjugation. Overall, there were five main alternatives to the correct subjunctive disjoint reference in desiderative clauses.

On the other hand, there was a large variety of structures in the L2 Spanish speakers' responses for the disjoint reference PBCT, with 32.29% of the responses being alternatives, as shown in Table 6. Within this 32.29%, there were fourteen different types of variations from the correct subjunctive disjoint structure, ranging from the use of *querer* + *que* + infinitive to *querer* + future tense. Notably, 23.61% of the responses in the disjoint reference used the infinitive alternative, which was significantly higher than the 9.52% observed among native Spanish speakers. This significant use of the infinitive among L2 learners underscores a common transfer error from English, where the infinitive is often used in similar contexts.

L2 Spanish speakers' performance in co-reference scenarios was more accurate than in disjoint reference scenarios, with 87.08% of their total responses being correct compared to 67.71% correctness in disjoint reference scenarios. In the co-reference context, which requires the infinitive, only 31 out of 240 responses did not use the verb in the infinitive. Meanwhile, the native Spanish speakers performed with greater accuracy than the L2 Spanish speakers by selecting the infinitive in co-reference contexts in 92.86% of the 70 responses.

All in all, native Spanish speakers exhibit a high level of accuracy and consistency in expressing both co-referentiality and disjoint reference in desiderative predicates. Their extensive exposure to and practice with the subjunctive mood enable them to navigate these complex syntactic structures intuitively. In contrast, L2 Spanish learners, demonstrate more variability and a higher rate of errors.

5.3 Research Question 2

To evaluate the influence of proficiency on L2 Spanish speakers' interpretation and production of disjoint reference, it is essential to examine their responses to both the TVJT and the PBCT. The TVJT will assess participants' interpretation of scenarios as true or false based on the characters' dialogues, as outlined in Table 4. Using JMP Pro 17, the data will be consulted to inspect the correlation between proficiency, as measured by the DELE assessment, and the likelihood of selecting the expected result.

Figure 20. Relationship between DELE score and expected score
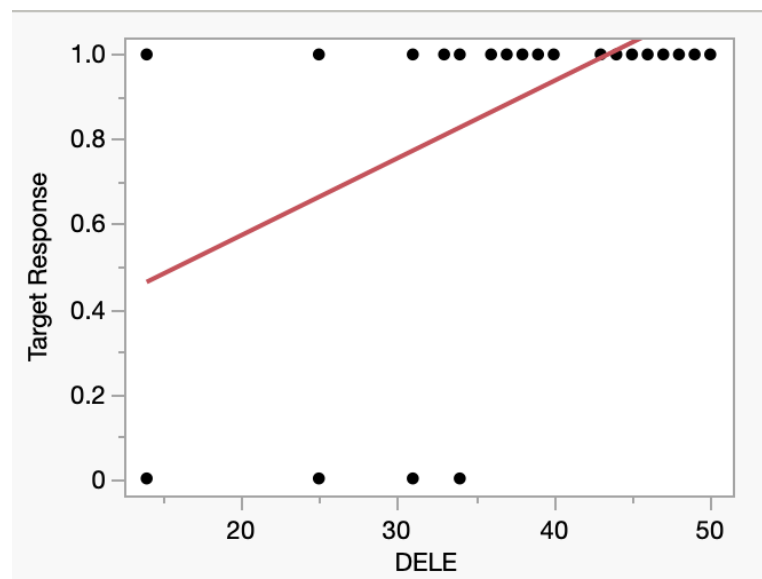
Figure 20 reveals a positive correlation between DELE scores and the proportion of correct target responses, as indicated by the red trend line. This suggests that as proficiency increases in the L2 Spanish speakers, the ability to correctly interpret and identify the subjunctive disjoint reference also improves. Participants with higher DELE scores, closer to 50, tend to achieve higher proportions of correct target responses, often reaching near-perfect accuracy. This trend underscores the importance of proficiency in accurately applying grammatical rules in complex syntactic contexts such as the subjunctive.

In contrast, participants with lower DELE scores (below 30) exhibit a wide range of target responses, frequently selecting incorrect options (true/false) for the respective questions, as outlined in Table 3. This indicates that lower proficiency levels are associated with greater inconsistency in interpreting and using subjunctive disjoint reference. However, the presence of

some low-scoring participants who still achieve correct responses suggests that other factors, such as individual differences in learning or exposure, may also play a role.

Overall, the chart demonstrates that proficiency, as measured by DELE scores, significantly influences the correct interpretation and use of subjunctive disjoint reference with desiderative predicates among L2 Spanish learners. Higher proficiency leads to more accurate and consistent application of these complex grammatical structures.

To understand the relationship between proficiency and the production of disjoint reference in L2 Spanish speakers, we examined their performance on the PBCT. Table 8 presents the relationship between DELE scores and PBCT performance.

Table 8. Relationship between L2 speakers' DELE score and PBCT

Participant	DELE	PBCT amount correct
Native English participant 1	45	11/12
Native English participant 2	31	10/12
Native English participant 3	45	12/12
Native English participant 4	50	2/12
Native English participant 5	34	6/12
Native English participant 6	43	5/12
Native English participant 7	47	12/12
Native English participant 8	34	11/12
Native English participant 9	48	10/12
Native English participant 10	39	11/12
Native English participant 11	43	11/12
Native English participant 12	14	0/12
Native English participant 13	33	8/12
Native English participant 14	37	11/12
Native English participant 15	49	11/12
Native English participant 16	25	2/12
Native English participant 17	39	0/12
Native English participant 18	34	2/12
Native English participant 19	36	10/12
Native English participant 20	40	11/12
Native English participant 21	46	9/12
Native English participant 22	44	12/12
Native English participant 23	48	9/12
Native English participant 24	38	9/12

The data, as demonstrated in Figure 19, indicates that proficiency, as measured by DELE scores, significantly impacts the production of subjunctive disjoint references in L2 Spanish speakers. Higher proficiency is associated with more consistent and accurate application of these complex grammatical structures. For instance, participants with DELE scores above 40 generally performed well on the PBCT, with most achieving 11 or 12 correct out of 12. Conversely,

participants with lower DELE scores exhibited greater variability and lower accuracy in their responses.

Figure 19 shows a clear positive correlation between DELE scores and PBCT performance. This suggests that as learners' proficiency increases, their ability to produce accurate subjunctive disjoint references improves. Participants with DELE scores in the higher range (above 40 consistently produced correct responses, indicating a strong grasp of the subjunctive mood's application.

Participants with lower DELE scores (below 30 showed a wider range of responses, with several failing to produce correct subjunctive disjoint references. This variability suggests that lower proficiency levels are associated with a less stable understanding and application of grammatical rules. For these learners, the subjunctive mood, especially in desiderative contexts, poses significant challenges that are not yet fully resolved through their current proficiency level.

There are deviations from this pattern, like those seen in the TVJT results. For instance, Native English participant 4, despite having a DELE score of 50, only answered 2 out of 12 items correctly. This discrepancy could be attributed to a misinterpretation of the task or an off day during testing.

In conclusion, when evaluating the role of proficiency in the production and interpretation of the disjoint reference with desiderative predicates, we can see a trend that supports the idea that higher proficiency levels are associated with greater accuracy and consistency. Participants with higher DELE scores demonstrated a more robust grasp of subjunctive disjoint references, correctly producing and interpreting these structures more frequently than their lower proficiency

counterparts. This trend underscores the importance of proficiency in mastering the subjunctive

mood, more specifically the disjoint reference.

5.4 Research Question 3

Research question 3 aims to delve deeper into the relationship between interpretation outcomes,

as determined by the TVJT, and the variability in responses provided by L2 speakers in the

PBCT. Since both co-reference and disjoint reference were examined in the study through the

TVJT and PBCT, the relevant questions will be isolated as shown in Table 9, which presents the

TVJT and PBCT results from co-reference-related questions.

Table 9. L2 speakers' types of errors to the co-reference PBCT

Participant	TVJT amount correct	PBCT amount correct	Types of errors
Native English participant 1	6/6	9/10	Querer + conditional (1)
Native English participant 2	5/6	9/10	Querer + que + subjunctive (1)
Native English participant 3	6/6	10/10	
Native English participant 4	5/6	10/10	
Native English participant 5	6/6	5/10	Querer + que + infinitive (3), Querer + que + subjunctive (2)
Native English participant 6	6/6	10/10	
Native English participant 7	6/6	10/10	

Native English participant 8	4/6	8/10	Querer + que + subjunctive (2)
Native English participant 9	6/6	10/10	
Native English participant 10	6/6	5/10	Querer + que + subjunctive (3), Querer + que + infinitive (1), Querer + conjugated for wrong word (1)
Native English participant 11	6/6	8/10	Querer + que + subjunctive (2)
Native English participant 12	3/6	10/10	
Native English participant 13	5/6	10/10	
Native English participant 14	6/6	10/10	
Native English participant 15	6/6	10/10	
Native English participant 16	2/6	4/10	Querer + future (3), Querer + que + infinitive (1), Querer + past (1), Querer + conjugated for wrong word (1)
Native English participant 17	5/6	10/10	
Native English participant 18	4/6	9/10	Querer + que + infinitive (1)
Native English participant 19	5/6	5/10	Querer + que + infinitive (2), Querer + future tense (1), Querer + que + present tense, Querer + subjunctive
Native English participant 20	6/6	10/10	
Native English participant 21	6/6	7/10	Querer + que + subjunctive (2), Quiere + reflexive (1)
Native English participant 22	6/6	10/10	

Native English participant 23	6/6	10/10	
Native English participant 24	6/6	10/10	

Table 9 shows the types of errors made in the PBCT, which reveals common patterns and specific challenges faced by L2 Spanish speakers. The most prevalent error involved the misuse of the subjunctive mood, particularly in desiderative constructions such as *Querer + que + subjunctive* in instances where the infinitive is required. Additionally, errors related to the incorrect use of infinitive forms and conditional or future tenses were frequently observed.

The relationship between TVJT and PBCT performance underscores the complexity of L2 acquisition, particularly in the interpretation and production of references. On the one hand, participants with high TVJT scores generally demonstrated accurate production in the PBCT, indicating that strong interpretative skills are crucial for correct production in co-reference cases. However, some participant results, with perfect TVJT scores but lower PBCT performance, such as those of Participants 5 and 10, suggest that even with good interpretative skills, production can be inconsistent. On the other hand, participants like Participant 12, who performed well on the PBCT despite lower TVJT scores, indicate that some learners can produce correct forms despite occasional interpretive misunderstandings. This phenomenon suggests that production proficiency can sometimes compensate for interpretive challenges.

When looking at the disjoint reference contexts, there is a similar association as seen in Table 10.

Table 10. L2 speakers' types of errors to the disjoint reference PBCT

Participant	TVJT amount correct	PBCT amount correct	Types of errors
Native English participant 1	6/6	11/12	Querer + conjugated for wrong word (1)
Native English participant 2	5/6	10/12	Querer + conjugated for wrong word (1), Querer + indicative (1)
Native English participant 3	6/6	12/12	
Native English participant 4	6/6	2/12	Querer + indicative (10)
Native English participant 5	6/6	6/12	Querer + indicative (4), Querer + que + infinitive (1), Querer + que + wrong subject + subjunctive (1)
Native English participant 6	6/6	5/12	Querer + indicative (7)
Native English participant 7	6/6	12/12	
Native English participant 8	5/6	11/12	Querer + indicative (1)
Native English participant 9	6/6	10/12	Querer + indicative (1), Querer + que + wrong subject + subjunctive (1)
Native English participant 10	6/6	11/12	Querer + indicative (1)
Native English participant 11	6/6	11/12	Querer + indicative (1)
Native English participant 12	1/6	0/12	Querer + indicative (12)
Native English participant 13	6/6	8/12	Querer + indicative (4)
Native English participant 14	6/6	11/12	Querer + que + wrong subject + subjunctive (1)
Native English participant 15	6/6	11/12	Querer + que + wrong subject + subjunctive (1)

Native English participant 16	4/6	2/12	Querer + present conjugation (3), Querer + que + present tense (2), Querer + present perfect indicative (1), Quiere + que + future tense (1), Quiere + que + present indicative (1), Querer + incorrect (1)
Native English participant 17	6/6	0/12	Querer + indicative (12)
Native English participant 18	5/6	2/12	Querer + indicative (9), Querer + que + wrong subject + subjunctive (1)
Native English participant 19	6/6	10/12	Querer + subjunctive (2)
Native English participant 20	6/6	11/12	Quiere + que + present indicative
Native English participant 21	6/6	9/12	Querer + indicative (1), Quiere + que + Present indicative (1), Querer + que + wrong subject + subjunctive (1)
Native English participant 22	6/6	12/12	
Native English participant 23	6/6	9/12	Querer + que + wrong subject + subjunctive (2), Querer + indicative (1)
Native English participant 24	6/6	9/12	Querer + indicative (2), Querer + que + wrong subject + subjunctive (1)

Table 10 illustrates that participants with lower TVJT scores often exhibited greater variability in their PBCT responses, suggesting a correlation between interpretative difficulties and production inconsistencies. For example, Native English participant 16, who scored 4 out of 6 on the TVJT,

displayed a wide range of errors in the PBCT, scoring only 2 out of 12. These errors included *Querer + present conjugation* (3 instances), *Querer + que + present tense* (2 instances), *Querer + present perfect indicative* (1 instance), *Quiere + que + future tense* (1 instance), *Quiere + que + present indicative* (1 instance), and *Querer + incorrect* (1 instance). The diversity and frequency of these errors underscore the challenges this L2 participant faced in producing correct forms.

Something that stood out was that even participants with high TVJT scores showed variability in their PBCT responses, indicating that strong interpretative skills do not always translate to perfect production accuracy. For example, Native English participant 5, who achieved a perfect TVJT score of 6 out of 6, still made several errors in the PBCT, scoring only 6 out of 12. The errors included *Querer + indicative* (4 instances, *Querer + que + infinitive* (1 instance, and *Querer + que + wrong subject + subjunctive* (1 instance. The types of errors made by this participant highlight specific areas of difficulty, such as mood selection and subject agreement, which can persist even in learners with strong interpretative abilities. This indicates that perfect understanding does not necessarily guarantee flawless production, and other factors such as familiarity with specific structures or contextual application play significant roles.

When comparing participants, those with higher accuracy in the TVJT are more likely to commit fewer varieties of errors, as demonstrated by several key examples in Table 10. For instance, Native English participants 3, 7, and 22 achieved perfect scores of 6 out of 6 on both the TVJT and the PBCT, making no errors. Similarly, Native English Participants 14 and 15 received 6 out of 6 on the TVJT and 11 out of 12 on the PBCT, indicating minimal errors. In contrast, Native

English Participant 16, who scored 4 out of 6 on the TVJT, exhibited a wide range of errors in the PBCT as seen in Table 10. This analysis highlights that while high interpretative abilities generally correspond to fewer production errors, other factors also influence production accuracy.

In conclusion, the analysis reveals a significant correlation between TVJT performance and PBCT accuracy. While high TVJT scores generally predict fewer errors and more consistent production, variability in production still exists. However, this variability is more frequently observed among L2 Spanish learners with lower interpretation skills. This indicates that strong interpretative skills are crucial for reducing errors and achieving consistent production. Therefore, addressing interpretative difficulties through targeted instruction can significantly improve overall language proficiency and production, helping learners to produce more accurate and consistent grammatical structures in Spanish.

CHAPTER 6

CONCLUSION

6.1 General Conclusions

This thesis has examined the acquisition of the Spanish subjunctive mood by native English speakers, particularly focusing on desiderative contexts involving subject co-referentiality and disjoint reference. Utilizing three primary methodologies, which were adapted from Perez-Cortes (2023)—the DELE Spanish assessment, a picture-based completion task, and a truth-value judgment task—the research aimed to assess participants' proficiency and their competence in interpreting and producing subjunctive structures.

The results point to a strong correlation between proficiency levels, as evidenced by DELE scores, and the accurate application of subjunctive disjoint reference. Participants with higher proficiency levels demonstrated a more consistent and precise use of subjunctive mood rules, whereas those with lower proficiency levels exhibited greater variability and a higher incidence of errors in both interpretation and production tasks. Additionally, the responses revealed that while strong interpretative skills, indicated by high TVJT scores, generally predicted fewer errors and greater consistency in the PBCT, discrepancies persisted.

Common errors among L2 learners included: the misuse of the indicative mood, rather than the subjunctive, and incorrect conjugations. These errors were more frequent among participants with lower interpretative skills, highlighting the critical role of strong interpretative abilities in achieving accurate and consistent production.

6.2 Limitations

A variety of issues arose after the data collection for the thesis. First and foremost, there was an error during the creation of the study: the failure to include an equal number of PBCT for the co-reference (10 target prompts) and the disjoint reference (12 prompts). Having an unequal number of target prompts made the analysis between co-reference and disjoint reference less comprehensive. The second mistake was the repetition of one of the disjoint reference prompts. However, it was not removed since some respondents had different answers for the same disjoint reference question.

The third limitation, which was certainly the most impactful, was the number of participants that were accumulated. Not only was there a relatively small number of participants in total, but there was also an uneven number of participants between the native Spanish speakers and the L2 Spanish speakers. This imbalance in the participant groups could have skewed the results, as the data might not accurately represent the performance and acquisition patterns of L2 Spanish speakers in comparison to native speakers. Additionally, the small sample size reduces the generalizability of the findings, making it challenging to draw stronger conclusions about the acquisition of the Spanish subjunctive in desiderative contexts.

A fourth limitation involves potential issues with the correlation between the different assessment tasks. The study revealed some inconsistencies in participants' performance across the DELE, PBCT, and TVJT tasks, as seen in the results of participants like non-native speaker 4. These cases suggest that high proficiency in one task (like DELE or TVJT) does not

necessarily correlate with high performance in the PBCT, which could indicate that each task may tap into distinct aspects of linguistic competence. This lack of alignment raises questions about whether the tasks collectively measure the intended construct—subjunctive mastery in desiderative contexts—accurately and comprehensively. Future study's would benefit from redesigning these assessments.

6.3 Future Directions

As shown in other acquisition articles, such as Bruhn de Garavito (1997) and Gudmestad (2006), the subjunctive mood is difficult to acquire for L2 Spanish speakers. The thesis' focus on desiderative contexts, while valuable, limits the scope of the findings. The acquisition of the subjunctive mood in Spanish involves a variety of contexts and predicates, and a more extensive examination across different contexts would provide a more complete view of the challenges and patterns in learning the subjunctive. Future research should aim to include a broader range of contexts and explore the interplay between different syntactic and semantic factors in the acquisition of the Spanish subjunctive mood than soley focusing on desideratives.

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Appendix 1. PBCT prompts

Target	Context	Speech	Target Sentence	Elicit
Indicative	El rey y los príncipes están reunidos dentro del palacio para hablar de cosas importantes. El rey anuncia:	¡Ahora hablo yo!	El rey quiere _____ (decir) el importante anuncio.	decir
Subjunctive	El rey y los príncipes están reunidos dentro del palacio para hablar de cosas importantes. El rey anuncia:	¡Por favor príncipes, adelante con su anuncio!	El rey quiere _____ (decir) el importante anuncio.	que digan
Indicative	Bob Esponja, Patricio y Sandy planean viajar a la playa. Bob Esponja dice:	¡Seré el primero allí	Bob Esponja quiere _____ (viajar) a la playa.	viajar
Subjunctive	Bob Esponja, Patricio y Sandy planean viajar a la playa. Bob Esponja dice:	¡Me olvidé de algo! Los veré a todos allí.	Bob Esponja quiere _____ (viajar) a la playa.	que viajen
Indicative	Sarah siempre está pensando en su vida romántica y la de sus amigas. Sarah dice:	¡Necesito un novio más guapo!	Sarah quiere _____ (tener) un novio más guapo.	tener
Subjunctive	Sarah siempre está pensando en su vida romántica y la de sus amigas. Sarah dice:	¡Necesitan un novio más guapo!	Sarah quiere _____ (tener) un novio más guapo.	que tengan
Indicative	Jesús y sus hijas están completando un	¡Unos refrescos para mí!	Jesús quiere _____ (tomar) unos refrescos.	tomar

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	viaje muy largo y deciden parar en una tienda. Jesús dice:			
Subjunctive	Jesús y sus hijas están completando un viaje muy largo y deciden parar en una tienda. Jesús dice:	¡Unos refrescos para mis hijas!	Jesús quiere _____ (tomar) unos refrescos.	que tomen
Indicative	Es un día muy frío y una abuela y sus nietas están solas en casa y todas las ventanas están abiertas. La abuela dice:	¡Que frio! Ahora cierro la ventana.	La abuela quiere _____ (cerrar) la ventana.	cerrar
Subjunctive	Es un día muy frío y una abuela y sus nietas están solas en casa y todas las ventanas están abiertas. La abuela dice:	Oye, ¿pueden cerrar la ventana?	La abuela quiere _____ (cerrar) la ventana.	que cierren
Indicative	El médico ha hablado con los Rojas sobre la importancia de la comida sana. Despues de la vista, la familia habla sobre ella. Señora Rojas dice:	¡Debo buscar comida más sana!	La señora Rojas quiere _____ (comprar) comida más sana.	comprar

Subjunctive	El médico ha hablado con los Rojas sobre la importancia de la comida sana. Despés de la vista, la familia habla sobre ella. Señora Rojas dice:	¡Hijos, deben buscar comida más sana!	La señora Rojas quiere _____ (comprar) comida más sana.	que compren
Indicative	El profesor de ciencias está hablando con sus estudiantes de la película "Ferrari" que está ahora en el cine. El profesor dice:	¡Ya mero sale la película, no puedo esperar al estreno!	El profesor de ciencias quiere _____ (ver) "Ferrari".	ver
Subjunctive	El profesor de ciencias está hablando con sus estudiantes de la película "Ferrari" que está ahora en el cine. El profesor dice:	¡Ustedes deberían ir al cine, es una película fenomenal!	El profesor de ciencias quiere _____ (ver) "Ferrari".	que ve
Indicative	Un doctor está hablando con su enfermera. El doctor dice:	Pido disculpas por hacerte esperar.	El doctor quiere _____ (ser) más puntual.	ser
Subjunctive	Un doctor está hablando con su enfermera. El doctor dice:	Por favor, no vuelvas a llegar tarde, Jessica.	El doctor quiere _____ (ser) más puntual.	que sea
Indicative	Es una cena muy especial, y le preguntan al cocinero quién hará la selección	¡La cocina la controlo yo!	El cocinero quiere _____ (escoger) los ingredientes.	Escoger

	de ingredientes para los tacos. El cocinero dice:			
Subjunctive	Es una cena muy especial, y le preguntan al cocinero quién hará la selección de ingredientes para los tacos. El cocinero dice:	¡La selección de ingredientes debería ser de los invitados!	El cocinero quiere _____ (escoger) los ingredientes.	
Indicative	Un director está hablando con su personal sobre una reunión. El director dice:	Yo mismo haré la presentación.	El director quiere _____ (hacer) la presentación.	hacer
Subjunctive	Un director está hablando con su personal sobre una reunión. El director dice:	Pongo la presentación en vuestras manos.	El director quiere _____ (hacer) la presentación.	que hagan
Subjunctive	En el restaurante hay una pareja con dos niños pequeños que están cenando juntos. El papá dice:	¡Eso es muy poco, niños, más comida en sus platos!	El papá quiere _____ (comer) más.	que comen