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Interpretation of the French and Spanish Subjunctive by L1, L2, and L3 Speakers: Contexts Where Mood Can Alternate without Ungrammaticality

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A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree in French

INTERPRETATION OF THE SUBJUNCTIVE IN FRENCH AND SPANISH BY L1, L2, AND L3 SPEAKERS: CONTEXTS WHERE MOOD CAN ALTERNATE WITHOUT UNGRAMMATICALITY

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Abstract

This thesis looks at how factors such as cross-linguistic transfer affect the degree of attainment of one morphosyntax-pragmatic interface phenomenon in particular: the subjunctive in French and Spanish in contexts where mood can alternate without ungrammaticality.

According to Quer (1998), contexts where mood can alternate without ungrammaticality present variation amongst native speakers (NSs). In order to identify the external and internal factors that govern this variation, we asked our control groups, 43 NSs of French and 22 NSs of Spanish from a variety of geographical regions, to fill out a linguistic profile and a scenario selection task.

36 L1 English speakers completed these same tasks in addition to a second language learner questionnaire which helped us to better understand their language learning backgrounds. 23 of these participants were students of French and 13 were students of Spanish. 15 of the students of French had no knowledge of Spanish whereas 8 did. As for the students of Spanish, 5 had no knowledge of French and 8 did.

The results from our scenario selection task suggest that positive cross-linguistic influence occurs both from the direction of the L2 to the L3 and from the L3 to the L2 since the multilingual learners outperformed the bilingual learners, most likely due to their increased exposure to the subjunctive in more than one non native tongue. Such results also suggest that adult L2 learners are better able to acquire an interface phenomenon when they are also learning an L3 which uses it in the same way, because they are able to advantageously apply their knowledge of this concept in French to Spanish, and vice-versa. As a central question in regards to L2 adult learners is their ability to successfully acquire interface phenomena, our findings lead us to join the side of the debate that believes a near-native competence is possible despite the difficulties acquisition of these phenomena entails.

Keywords

morphosyntax-pragmatic interfaces; cross-linguistic influence; French subjunctive; Spanish subjunctive; L2 acquisition; L3 acquisition; variationist sociolinguistics

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List of Abbreviations

CLI:	cross-linguistic influence
IND1:	subordinate clauses introduced by a strong intensional verb that require an indicative
IND2:	subordinate clauses introduced by a negated main clause that require an indicative
IND3:	interrogative sentences with a subordinate clause that requires an indicative
INDALL:	all sentences with subordinate clauses requiring an indicative
L1:	first language
L2:	second language
L3:	third language
NS:	native speaker
NNS:	non-native speaker
SLA:	second language acquisition
TL:	target language
TLA:	third language acquisition
UG:	Universal Grammar
SUB1:	subordinate clauses introduced by a strong intensional verb that require a subjunctive
SUB2:	subordinate clauses introduced by a negated main clause that require a subjunctive

SUB3: interrogative sentences with a subordinate clause that requires a subjunctive

SUBALL: all sentences with subordinate clauses requiring a subjunctive

Chapter 1

1 Introduction

Globalization has rendered multilingualism the rule rather than the exception in our modern society. Such a linguistic evolution has engendered a need for research in this field, including the study of its educational implications. In the context of multilingual education and learning, it is not uncommon to find traces of a certain phenomenon known as cross-linguistic influence (CLI). CLI is the conscious or unconscious cognitive process of transferring knowledge of (a) previously acquired language(s) to one acquired later on. Recent research on CLI has focused on the syntactic and lexical development of foreign language learners from various linguistic backgrounds.

Berkes & Flynn (2012) analyze the acquisition of an L3 in which the CP properties are paralleled in the first (L1) and the third (L3) languages but not the second (L2). The results of their elicited imitation task completed by L1 Hungarian/L2 English and L1 Hungarian/L2 German/L3 English speakers provide evidence for the *Cumulative Enhancement Model for Language Acquisition*, which proposes that any additional language acquired facilitates the acquisition process. In addition to these theoretical implications, there are also didactic ones. For instance, if a language teacher knows which languages their learners already have advanced communicative competence in, they will be better informed about the solidity of certain grammatical properties in the brains of these learners and therefore more adept at pinpointing areas where more transparent input and practice are or are not needed.

Angelovska & Hahn (2012) investigate the type of negative transfer which occurs when L2 learners of German acquire English as an L3. They found evidence of L2 syntactical properties in the minds of the L2 German/L3 English learners at both initial and later stages of acquisition, but only when these structures did not exist in the L1. Such results suggest that L2 syntactic transfer is indeed a possibility in L3 acquisition.

Karpava, Grohmann & Fokianos (2012) find support for the Full Transfer/Full Access Hypothesis in their study on L2/L3 acquisition of Modern Greek by Russian and/or Georgian speakers. In general, the L2 and L3 learners demonstrated near-native knowledge of embedded aspect. Given that both child and adult participants were studied, early versus late acquisition was also examined. Regarding the L2 group, for example, the children's L2 production was more similar to child L1 production than to adult L2 production.

Kresic & Gulan (2012) come to the conclusion that making cross-linguistic equivalencies between languages explicit to learners is a beneficial learning strategy. Interlingual identification related to English modal elements and German modal particles happened to be an essential and frequent psycholinguistic process for the L1 Croatian participants. The authors urge that interlingual identifications be included as a basic element in the foreign language classroom so as to maximize the synergy between languages.

Odlin (2012) explores the role of individual variation and how L2 acquisition may or may not facilitate L3 acquisition. For example, the range of variation found in the L3 English of the L1Finnish/L2 Swedish speakers regarding article omission was comparable to that found in the L2 English of L1 Finnish speakers with no knowledge of Swedish. His findings emphasize that no two individuals will acquire a language in an identical fashion, thus looking at the implications of divergences in individual competencies should not be eclipsed by those revealed through group differences.

Our study also falls into this same niche of research, examining the role CLI plays when L1 English speakers acquire grammatical mood alternation in L2 French, L2 Spanish, and L2 French/L3 Spanish. In certain contexts in both French and Spanish, only one mood, the indicative or the subjunctive, is grammatical like in (1):

(1) Je veux qu'il *vienne* (SUB)/**vient* (IND).
'I want him to come.'

However, in the contexts examined in our study, the use of the subjunctive or the indicative is optional rather than obligatory. For example, the usage of the subjunctive in (2) indicates that the speaker doubts the existence of such a book whereas the usage of

the indicative in (3) shows that the speaker is certain that a book with that characteristic exists:

(2) a. J'ai besoin d'un livre qui *contienne* (SUB) une explication simple de la physique nucléaire.
b. Necesito un libro que *explique* (SUB) de manera fácil la física nuclear.
'I need a book that explains nuclear physics in an easy manner.'

(3) a. J'ai besoin d'un livre qui *contient* (IND) une explication simple de la physique nucléaire.
b. Necesito un libro que *explica* (IND) de manera fácil la física nuclear.
'I need a book that explains nuclear physics in an easy manner.'

Since the preference of one mood over another changes the interpretation of the sentence but does not affect its grammaticality, one can say that this grammatical concept is a morphosyntax-pragmatic interface phenomenon. In fact, linguistic phenomena situated at the interface between syntax (sentence structure) and other types of knowledge such as pragmatics (the usage of language in a context) and semantics (the meaning of words, expressions, phrases) is increasingly attracting the attention of researchers since they could be subject to linguistic transfer in contact situations such as simultaneous bilingual acquisition, the acquisition of an L2, and the attrition of a mother tongue (L1) (Hulk & Müller, 2000; Müller & Hulk, 2001; Paradis & Navarro, 2003; Serratice, Sorace & Paoli, 2004; Sorace, Serratrice, Filiaci & Baldo, 2009).

With relation to adult learners, a central question is whether or not they can successfully acquire interface phenomena. Filiaci (2003) and Sorace (2003, 2004, 2005) are supporters of the position that the acquisition of interface phenomena could be retarded or flawed, whereas other researchers (Borgonovo & Prévost, 2003; Dekydtspotter & Sprouse, 2001) are on the same wavelength when arguing that adult learners are capable of acquiring a near-native competence in their L2 despite the difficulties acquisition of this type of phenomenon entails.

Borgonovo, Bruhn de Garavito & Prévost (2006) examine one morphosyntax-pragmatic interface phenomenon in particular: the acquisition of the subjunctive in Spanish as an

L2 by Anglophones in contexts where mood can alternate without ungrammaticality (see examples 3 and 4). Since the subjunctive is virtually unknown in English, the fact that the advanced students tended to choose the same mood as the control group suggests that learners are capable of overcoming the constraints of their L1 and acquiring properties that only their L2 contains.

In order to better understand the influence of previously acquired languages on the interlanguage of adult learners, our study adopts the methodology of Borgonovo *et al*. (2006) with the aim of examining the relationships between the L1 (English) and the L2 (French), between the L2 and the L3 (Spanish), and between the L1 and the L3 of a speaker in contexts where alternation between the subjunctive and the indicative changes the interpretation and not the grammaticality of the sentence.

Since, as Leung (2005) affirms, the role of transfer remains integral to the scholarly discourse about the acquisition of an L3, these results aid in our understanding of the influence of the L1 and the L2 during this process. The participants of this study belong to the following linguistic groups: native speakers of French; native speakers of Spanish; students of French as an L2 without knowledge of Spanish; students of French as an L2 with knowledge of Spanish; students of Spanish as an L2 without knowledge of French; students of Spanish as an L3 with knowledge of French.

The second chapter of this thesis situates our study within the literature after offering an overview of previous studies on the development of mood in French and Spanish, mood selection, the acquisition of interface phenomena, UG and L2 acquisition, L2 versus L3 acquisition, factors that condition CLI, and CLI and interface phenomena. The third chapter draws upon these previous studies to construct hypotheses in regards to the external and internal factors influencing the interpretation of the subjunctive on the part of both native speakers (NSs) and non-native speakers (NNSs).

Next, we justify and describe our methodology. We describe the participants and the linguistic groups to which they belong, the linguistic profile, second language learner questionnaire (where applicable), and scenario selection task that they completed, and the way in which these tasks were administered.

Our results chapter is divided into three parts, beginning with a presentation of the results of the NS, followed by a comparison of the results of the NNSs and the NS, and concluding with a break-down of the results of the NNSs. Chapter 6 is a discussion which uses these results to specify the nature of variation that is found in the interpretation of mood amongst NSs and NNSs of French and Spanish, as well as to identify factors which could play a role in the acquisition of this morphosyntax-pragmatic interface phenomenon.

The last chapter then summarizes our study and proposes a conclusion. We also explain the limitations of the study and end the chapter by suggesting a way to use the results in future studies.

Chapter 2

2 Previous Studies

In this section we provide an overview of previous studies which address variation in the usage of mood and its acquisition by L1, L2, and L3 speakers of French and Spanish.

2.1 Development of Mood

When we speak about mood development in French and Spanish, we have to take multiple fields into account. For example, how is mood acquired by L1 and L2 speakers? How does mood usage vary from one linguistic community to another? How has mood usage evolved over time?

Faingold (2003) goes about answering these questions by compiling empirical data from French and Spanish and analyzing them. In doing so, he manages to identify marked versus unmarked structures, in turn leading him to propose a developmental model of markedness.

Markedness is a concept that delineates certain aspects of language as being unmarked and others as being marked. In this asymmetrical relationship between elements, one term is considered to be more 'dominant' and is known as the unmarked term, whereas the 'less prevalent' one is referred to as the marked term. Battistella (1996) points out that although both Chomskyan generative grammar and Jakobsonian structuralism contain the marked versus unmarked distinction, they look at this idea through different lenses. Jakobson (1963) views language as a system of oppositions that reflect conceptual and perceptual properties, acknowledging that some of the marked and unmarked elements are universals. Universals may be more abstract in the Chomskyan framework, but they play a more predominant role in it. Chomsky & Lasnik (1977) believe that markedness belongs to Universal Grammar (UG), the innate ability one has to acquire a language. In this intellectual tradition, language learning is represented as the setting of values of innate parameters, some of which are unmarked and exist as

default hypotheses, others of which are marked and therefore necessitate additional evidence to figure out.

A concrete example of an unmarked-marked relationship is the indicative mood versus the subjunctive mood in French and Spanish. The indicative, the less-marked mood, is used in non *irrealis* constructions (e.g. factual or neutral sentences) whereas the subjunctive, the more-marked mood, is used in *irrealis* constructions (e.g. sentences that reflect will, desire, incertitude, denial, counter-fact, possibility, attitude, or emotion).[1]

Below is a summary of the rules and constraints on mood development put forth by Faingold (2003) in his developmental model of markedness. Since findings from other studies on mood usage support his proposed model, they have been intertwined with his original examples. Although the rules and constraints on the development of mood revealed in his model are explained solely with reference to internal (systematic) factors, Faingold (2003) admits that it is impossible to give a complete explanation of the development of mood without reference to external (social) factors as well.

2.1.1 L1 Acquisition of Mood

As a whole, the results examined by Faingold (2003) show that small children acquire the subjunctive considerably later than the indicative, the infinitive, and the imperative. In (1) and (2) we see that children aged 4-6 tend to use the indicative even when the subjunctive is required:

(1) Tu veux bien que je *aille*/**vais aller* prendre quelque chose?
'You want me to take something?'
(Remacle, 1966: 303-4)

(2) Mamá duda que el niño + *subjunctive*/**indicative*
'Mom doubts that the child + *subjunctive*/*indicative*'
(Blake, 1980: 75-148, cited in Faingold, 2003)

[1] Both French and Spanish actually have three verb moods to which all verbs (save infinitives, participles,

Furthermore, Kempchinsky (1995) remarks that children learning languages similar to Spanish first acquire the subjunctive in subordinate clauses introduced by volitional verbs and then, much later, in subordinate clauses introduced by emotive verbs and the presence of negation. Pérez-Leroux (1998) attributes this development of the subjunctive to psychological maturity. Before children can acquire certain functions of this mood, it seems that they must be able to make the distinction between reality and their own beliefs. Thus, the rule governing L1 development of mood appears to be as follows: children select less-marked forms and omit or replace more-marked with less-marked forms.

2.1.2 L2 Acquisition of Mood

In terms of L2 acquisition in a natural environment, a similar rule seems to be firmly in place: less-marked structures are learned before more-marked forms by adults. Collentine (1995, 1997, 2003) explains that the lack of a communicative value of the subjunctive means that L1 English speakers do not need to master it to be understood in French or Spanish and therefore its acquisition is retarded or halted.[2]

In a classroom setting, where mood distinctions are explicitly taught, L2 learners are faced with the same constraint: less-marked structures are learned before more-marked forms. Collentine (1995, 1997, 2003) reasons that L1 English speakers store fewer subjunctive forms than indicative forms in memory because these forms do not differ considerably from one another, and therefore the presence of this mood is not salient. Also, learners must be able to generate syntactically complex sentences before their usage of the subjunctive can be reliable.

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[2] Although this may be true in the case of the obligatory subjunctive, this does not apply to the optional subjunctive, which is what our study examines (see Section 2.2 for a detailed explanation of the obligatory versus optional distinction). Now, whether the communicative intent in each case is explicitly taught is another matter.

2.1.3 Some Changes in Subjunctive Use in French and Spanish

One cannot forget to take the diachronic dimension of mood usage into consideration because it shows that changes in mood usage do no not just occur over the lifespan of a speaker (age-graded changes) but also over generations.

For instance, at the end of the 19th Century, the imperfect subjunctive (IMP SUB) began to disappear from oral French and be replaced by the present subjunctive (PRES SUB), as seen in (3):

(3) Je voulais qu'il *vienne* (PRES SUB)*/vînt* (IMP SUB) aujourd'hui.
'I wanted him to come today.'
(Barral, 1980: 341)

Although the imperfect subjunctive still subsists in written French, the choice to use this form instead of the present subjunctive depends on several factors: the person of the verb (third person singular), verb tense (after a conditional or a simple past), aspect (expression of a complete action), and the meaning of individual verbs (craindre, attendre, etc.) (Ayres-Bennett, Carruthers & Temple, 2001: 215).

Oral Spanish has seen comparable changes, such as the replacement of the future subjunctive (FUT SUB) by the present subjunctive (PRES SUB) observed in (4):

(4) Ojalá que *vengan* (PRES SUB)/*vinieren* (FUT SUB).
'I hope that they come.'
(Sastre 1997: 39-41)

Nevertheless, one can still find examples of the future subjunctive in written Spanish, in technical languages such as justice or administration, in addition to oral usage in the judiciary world.

Taking these and other historical patterns into consideration, Faingold (2003) asserts that the rule governing the evolution of mood development is the following: less-marked structures substitute for more-marked structures and not vice-versa.

2.1.4 Dialectal Variation

The acceptability of replacing an obligatory subjunctive with an indicative may vary depending upon the linguistic community that a speaker belongs to. For example, a speaker from Los Angeles (5) may accept a present indicative after an expression of time expressing an action that has not yet taken place, whereas a speaker from Madrid may reject it. Likewise, a speaker from Mexico (6) may use an indicative after an admission of doubt even though a speaker from Spain would use a subjunctive.

(5) Los Angeles
Quiero viajar por muchas partes hasta que *me caso*.
'I want to travel around up until I get married.'
(Silva-Corvalán, 1993, cited in Faingold, 2003)

(6) Mexico
No creo que lo *saben*.
'I don't believe that they know.'
(Lope Blanch, 1958: 384)

Similar dialectal differences can be detected in French. In (7), an Algerian speaker has used a present indicative after a matrix verb expressing volition, whereas a subjunctive would have been preferred in other speech communities. A subjunctive is generally favoured after a desire has been expressed that a concrete situation will come about as well, but the Belgian speaker in (8) has used the simple future.

(7) Algeria
Je ne veux pas que tu *viens* avec nous.
'I don't want you to come with us.'
(Cohen, 1965: 81)

(8) Belgium
Nous sommes assez tard, pourvu qu'il *sera* patient.
'We're fairly late, let's hope he's patient.'
(Pohl, 1962: 88)

By taking this empirical data from both French and Spanish into consideration, we can observe that the same constraint appears to operate in cases of dialectal variation: less-marked structures usually substitute for more marked structures.

2.1.5 Neutralization

Neutralization occurs when a distinction is lost in a particular environment where the less-marked form survives. Laurier (1989) observes the neutralization of the subjunctive in his study of young Franco-Ontarians who have very little exposure to standard French and who are in intensive contact with English, a language which manifests virtually no mood distinction. This study shows that speakers do not always use the subjunctive in contexts where the subjunctive is obligatory, and almost never use it in cases where it is optional and could add a particular nuance. Out of the 153 contexts where the subjunctive could have been observed in their corpus, only 8 usages like the one in (9) were found:

(9) Y'ont pas grand-chose qui leur *appartienne*.
'Not much belongs to them.'
(Laurier, 1989: 115)

Silva-Corvalán (1994) describes the same tendency in heritage speakers of Spanish because they are educated in English and thus have reduced exposure to the standard dialect. In (10), a speaker has used an indicative rather than the subjunctive that is required by normative grammar to express doubt:

(10) Quizás *vengo* mañana.
'Maybe I'll come tomorrow.'
(Silva- Corvalán, 1994: 42)

Poplack (1992) brings to our attention the fact that Spanish is more conservative than French in regards to its usage of the subjunctive, French being further along in the neutralization of this mood. Unlike in Spanish, the imperfect and pluperfect subjunctives, which should concord with the tense of the matrix verb, have disappeared

from spoken French. In (11), the matrix verb is in the pluperfect tense (PLUP) followed by a present subjunctive (PRES SUB) in the subordinate clause:

(11) Bien moi, s'il *avait fallu* (PLUP) qu'ils *fassent* (PRES SUB) ça, je le sais pas qu'est-ce que j'aurais faite. (118/1264)
'Personally, if they had had to do that, I don't know what I would have done.'
(Poplack, 1992: 239)

2.1.6 Frequency

Unmarked forms usually appear more frequently than marked forms both within and across languages. This frequency rule holds true for mood usage in both French and Spanish.

According to Poplack (1992), contexts in which the subjunctive is an option in the spoken language in French are rare, between five and ten per half hour of speech, and within these contexts almost half of the surface forms are morphologically ambiguous. In the present study, interviews with speakers resulted in 240 hours of naturally occurring speech and 2, 694 unambiguous verbs in a subordinate clause prescriptively requiring a subjunctive, 593 of which contained an indicative. Of all of the contexts in her study that are supposed to trigger the subjunctive, two thirds were made up of *falloir (que)*. Since the subjunctive is used between 89 per cent of the time in these contexts, their sheer frequency inflates the overall rate of subjunctive usage, as noted in (12):

(12) Même pour une job aujourd'hui, faut tu *sois* bilingue. (015/1902)
'Even for a job these days, you have to be bilingual.'
(Poplack, 1992: 250)

2.1.7 Constructional Iconicity

Constructional iconicity can be explained by marked structures usually being 'markered' by an overt additional form. As a rule, the degree of structural complexity in mark bearing corresponds to the degree of markedness.

For example, the presence of negation creates a greater degree of structural complexity than is present in affirmative sentences and so, as Kempchinsky (1995) points out, French

and Spanish-speaking children acquire the subjunctive in these contexts much later than others.

Montrul (2009) compares heritage Spanish speakers' knowledge of subjunctive-indicative usage to their knowledge of preterit-imperfect usage and reveals that their knowledge of mood is not as solid as their knowledge of aspect. Knowledge of the subjunctive seems to be inherently more difficult to master than that of the preterit-imperfect contrast due to its usage in syntactically and pragmatically complex sentences.

2.1.8 Cross-linguistic Correspondences

Faingold (2003) sees value in trying to identify cross-linguistic correspondences. If correspondences are found across diverse languages and linguistic systems, common explanations may be sought to account for universal principles of development. For instance, it is clear from the examples that mood usage on the part of both French and Spanish NSs deviates from the norm, with the unmarked form replacing the marked form.

2.1.9 Cross-field Correspondences

Faingold (2003) also believes that it is important to look for cross-field correspondences. If correspondences are found between implicational relationships and linguistic areas, a common explanation may be sought to account for developments in all domains. These types of correspondences often reveal general principles, such as unmarked forms occurring earlier in child acquisition. Within Faingold's (2003) model of markedness, one finds strong parallels between mood development in L1 and L2 acquisition, dialectal variation, and language history.

In Section 2.1, we saw examples of contexts where only one mood, the indicative or the subjunctive, is grammatical. However, the traditional approach relating mood selection to the *realis*/*irrealis* opposition is only partially accurate, because the syntactic, semantic, and pragmatic rules that govern the choice of the subjunctive versus the indicative are quite complicated. Prescriptive grammar in French and Spanish divides subjunctives into two types: obligatory and optional. A detailed explanation of this distinction follows in Section 2.2.

2.2 Mood Selection

2.2.1 Obligatory Subjunctive

The subjunctive generally occurs in embedded contexts. When the subjunctive is lexically selected by the matrix verb or impersonal expression, its use is obligatory:

(13) a. Je veux que tu *viennes*/**viens* ici.
b. Quiero que *vengas*/**vienes* aquí.
'I want you to come.'

(14) a. Il est important que tu *fasses*/**fais* attention.
b. Es importante que *prestes*/**prestas* atención.
'It is important that you pay attention.'

Nevertheless, its obligatory nature is not as categorical in informal spoken language as in formal written language. As demonstrated in Section 2.1, variation exists across space, time, and individuals. In fact, in addition to traditional grammar manuals which describe when the subjunctive must be used and when it must be avoided, descriptive grammar manuals such as Bosque & Demonte (2000) exist which recognize and document variations between 'norms' in subjunctive usage.

2.2.2 Optional Subjunctive

According to Quer (1998), contexts where the choice between the subjunctive and the indicative changes the interpretation rather than the grammaticality of the sentence show variability amongst NSs and are the first ones lost in attrition.

In Spanish, there are six operators which allow for mood alternation in the embedded clause: strong intensional verbs[3] (15), negation (16), interrogation (17), modals, future

[3] An 'intensional' interpretation opposes an 'extensional' interpretation and should not be confused with 'intention.' Verbs such as *look for* permit two different readings of an indefinite NP-complement:

(1) John is looking for a horse.

tense, and imperatives. As French only has parallel usages in the first three cases, these are the ones examined in our study and illustrated below. The usage of the subjunctive (SUB) in contexts (15) to (17) indicates that the speaker questions the existence of such a person or object whereas the usage of the indicative (IND) shows that the speaker is certain that such a person or object exists:

(15) a. Je cherche quelqu'un qui *sache* (SUB)/*sait* (IND) parler basque.
b. Estoy buscando (a) alguien que *hable* (SUB)/*habla* (IND) euskera.
'I am looking for someone who speaks Basque.'

(16) a. Je ne vois pas de voiture qui me *convienne* (SUB)/*convient* (IND).
b. No veo un coche que me *convenga* (SUB)/*conviene* (IND).
'I don't see a car that suits me.'

(17) a. Est-ce que vous connaissez un magasin de meubles qui *vende* (SUB)/*vend* (IND) des meubles anciens?
b. ¿Conoce una mueblería que *venda* (SUB)/*vende* (IND) muebles antiguos?
'Do you know a furniture store that sells antique furniture?'

2.2.3 Mood as a Marker of Specificity

In Hawkins (1978: 204), specificity is defined as, "a kind of definiteness, expressed by the interpretation of or grammatical marking on a noun or noun phrase, indicating that the speaker presumably knows the identity of the referent(s)."

Quer (1998) shares the prevailing belief that the indicative correlates with specificity (Farkas, 1985; Giannakidou, 1998; Pérez-Saldanya, 2000; Rivero, 1971), ensuring the presupposition that something exists which fits the definite description. The subjunctive,

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(2) There is a horse *x* and John is looking for *x*.

Examples (1) and (2) are equivalent on the first reading, known as the extensional interpretation. The second reading, or the intensional interpretation, has a non-specific character and implies that John is looking only to be relieved of his situation of not having a horse (Moltmann, 1997: 1).

in contrast, correlates with non-specificity and conveys uncertainty about the existence of an individual or an object possessing the characteristics which are attributed to it.

2.2.4 Other Markers of Mood

Borgonovo *et al*. (2006) points out that specificity and non-specificity can also be marked by other elements in a sentence: the type of determiner, indefinite determiners being more easily interpreted as non-specific than definite ones; negative determiners, which are obligatorily non-specific; the absence of a determiner, bare nouns being more easily interpreted as non-specific in Spanish; the presence or absence of the personal preposition *a* in Spanish in the case of direct objects, as in (18):

(18) **Non-specific**

a. Necesita un ayudante que *tenga* (SUB) un doctorado.

Specific

b. Necesita a un ayudante que *tiene* (IND) un doctorado.

'She needs an assistant who has a doctorate.'

Unfortunately, the relationship between non-specific and subjunctive is not infallible; complex pragmatic inferences remain integral to deciphering the meaning encoded in the message.

We observed parallels between the acquisition of the obligatory subjunctive amongst L1 and L2 speakers in the previous section, but we have yet to see how L2 speakers acquire the optional subjunctive, which obviously entails greater pragmatic knowledge. We address this query in Section 2.3.

2.3 Acquisition of Interface Phenomena

An interface is the point of intersection between two modules of grammar that are theoretically assumed to be independent (i.e. morphology, syntax, semantics, pragmatics, etc.). The subjunctive in French and Spanish in contexts where mood can alternate without ungrammaticality is an ideal example of a morphosyntax-pragmatic interface because the choice between the indicative and the subjunctive depends on the

presuppositions of the speaker in conjunction with the linguistic and non linguistic contexts that motivate its use.

Interface phenomena are attracting the attention of researchers more and more because they represent possible sources of instability in the simultaneous and subsequent acquisition of an L2 (Paradis & Navarro, 2003; Serratrice, Sorace & Paoli, 2004 ; Sorace, 2000; Sorace *et al*. 2009), in developmental delays in L1 acquisition (Schmitt & Miller, 2007), and in attrition (Montrul, 2004). In the case of adult learners, it is not clear as to whether they can successfully acquire interface phenomena or not.

Unlike Filiaci (2003) and Sorace (2003, 2004, 2005) who support the position that the acquisition of interface phenomena could be retarded or flawed, Borgonovo *et al*. (2006) argued that Borgonovo & Prévost (2003) and Dekydtspotter & Sprouse (2001) were correct when arguing that adult learners are capable of acquiring a near-native competence in their L2 despite the difficulties acquisition of this phenomenon entails. In order to test their hypothesis, Borgonovo *et al*. (2006) chose to look at one morphosyntax-pragmatic interface in particular: the acquisition of the subjunctive in Spanish as an L2 by Anglophones in contexts where mood can alternate without ungrammaticality. Their methodology consisted of administering a grammaticality judgment task and a truth-value judgment task to 16 English-speaking learners (8 intermediate and 8 advanced) and 17 Spanish NSs. Since the subjunctive is virtually unknown in English, the fact that the advanced students tended to choose the same mood as the control group suggests that learners are capable of overcoming the constraints of their L1 and acquiring interface properties that only their L2 contains.

However, it must be noted that not all interface phenomena behave alike and that some pose fewer problems than others for L2 learners. Tsimpli & Sorace (2006) make a distinction between the syntax-semantics interface and the syntax-discourse interface in Greek based on the nature of the interaction between structures. They associate formal features and operations within syntax and Logical Form with the syntax-semantics interface and connect the syntax-discourse interface with pragmatic conditions that determine appropriateness in context. They go on to propose that L2 learners of Greek

struggle more so with the syntax-pragmatics interface than with the syntax-semantics interface based on their results from subject pronoun distribution and Focus tasks. Sorace *et al*. (2009) say that one might hypothesize that adult NSs have clear grammatical versus ungrammatical intuitions in regards to tasks concerning the syntax-semantics interface, whereas their acceptability judgments in tasks involving syntax and discourse-pragmatics could be pragmatically inappropriate seeing as violations of this interface lie on a gradient of acceptability.

Sorace & Serratrice (2009: 198-199) list the factors, which are not mutually exclusive, that can affect the degree of attainment of interface structures:

(a) Underspecification of interpretable features affecting interface mappings between syntactic structures and interpretation at the level of mental representations of grammatical knowledge.

(b) Cross-linguistic influence in representations and/or in parsing strategies.

(c) Processing limitations, intended as inefficient (incremental) access to knowledge, inefficient coordination of information, and/or inefficient allocation of resources.

(d) The input received by bilingual speakers, both in terms of quantity and quality (for example, whether it is produced by native, non-native, or attrited speakers).

(e) Bilingualism per se, including executive control limitations in handling languages in real time.

White (2008) goes beyond pinpointing particular interfaces that have varying levels of attainment in L2 acquisition and makes a general distinction between 'internal' and 'external' interfaces. Apparently, L2 learners are able to acquire 'internal' interfaces but find 'external' interfaces to be challenging even at very advanced stages of acquisition. An example of an external interface according to Jackendoff (2002) would be one relating the computational system (syntax) to the conceptual-intentional system (discourse), whereas internal interfaces include intersections between syntax and morphology, syntax and phonology, syntax and semantics, etc.

So as not to neglect other theories about why L2 learners struggle to attain the same level proficiency as L1 speakers, Section 2.4 delves into the UG access debate.

2.4 UG and L2 Acquisition

We adopt the theoretical position according to which the grammars of NSs are constrained by an ensemble of innate universal linguistic principles, known as UG (Chomsky, 1981). In the past, the incapacity of learners to acquire an L2 to the same degree of proficiency as NSs was interpreted as the absence of UG in 'interlanguages', a term created by Selinker (1979) to define non native grammars. However, there are now an increasing number of studies whose outcomes are compatible with the position that learners systematically arrive at the same mental representations as NSs in regards to input from the L2, and that these mental representations are constrained by UG (Haznedar, 1997; Schwartz & Sprouse, 1996; Slabakova, 2000; White, 2003; Yuan, 1998).

White (2003) attempts to characterize and explain the linguistic systems that L2 learners develop. L2 learners face a task which is parallel to that of L1 learners, that is to say, the need to arrive at a linguistic system which takes into account the input so that the learner can understand and speak the non native tongue. Given the similarity, a pertinent question that researchers have been pondering since the beginning of the eighties, is the extent to which the underlying linguistic competency of L2 speakers is constrained by the same universal principles that govern natural language in general.

Research carried out in the eighties focused on the question of access. The hypotheses put forth were based on the idea that L2 learners had no access, full access, or partial access to UG. The hypothesis of no access asserts that L2 adult acquisition is not constrained by UG, or that access is limited to properties only active in the L1 grammar. The nucleus of the no-access argument is that all of the linguistic mechanisms available to the L1 learner are no longer available to the L2 learner. The other side of the debate declares that L2 learners do indeed have access to UG and that their intermediate grammars possess parameters that are nonexistent in the L1. Some researchers (Cook & Newson, 1996; Flynn, 1987; Schwartz & Sprouse, 1996) argue in favour of the hypothesis of full-access, believing that L2 learners acquire properties of the L2 independently of the L1 grammar. Other researchers (Clahsen & Muysken, 1986; Eubank, 1993/94; Schachter, 1989; Vainikka & Young-Scholten, 1996) are supporters of

the hypothesis of partial access, which grants importance to the roles that both the L1 and UG play in the acquisition process. According to this theory, L2 learners have access to the principles and the parameters of UG, but at the start this access must pass through the L1 grammar, reserving the possibility for restructuration via contact with the L2.

White (2003) is of the opinion that an approach which classifies the problem as black or white (sole access to UG or sole access to L1) is perforated with flaws. In fact, she calls it a false dichotomy and asserts that it is misguided to contrast UG with the L1 as the source of knowledge because evidence points to involvement of both of these factors.

The strongest argument in favour of the existence of UG principles in interlanguage is the manifestation of subtle and abstract linguistic properties in the knowledge of the L2 learner that could neither be learned from L2 input nor derived from the L1 grammar. Two conditions must be met in order to provide convincing evidence that interlanguages are constrained by UG principles. First, the phenomenon under scrutiny cannot be acquired solely by coming into contact with input from the L2, including deduction based on frequency, analogy, or instruction. Second, this phenomenon must behave differently in the L1 and the L2 so as to eliminate transfer as a plausible explanation for the newly acquired knowledge of the L2 learner.

When an L1 is acquired, UG is the initial state. However, it is unclear as to whether the UG morphs into a stable state over the acquisition period of a language, or if it remains a distinct entity from specific grammars. In the context of L2 acquisition, this question is front and centre because if UG takes the shape of a grammar that can subsequently be modified over the course of acquisition, we would be left with access only to the stable state of UG when acquiring non native languages. Two possibilities logically arise from the knowledge we have at our fingertips: either the L1 grammar constitutes the initial state of an L2 or UG does.

Our review of the literature demonstrates that there is a perceivable difference between the acquisition of an L1 and the acquisition of an L2. However, we have yet to address the question as to whether every language acquired after the L1 behaves in the same way or if second language acquisition (SLA) and third language acquisition (TLA) are distinct

processes. In Section 2.5 we aim to make it clear that we favour the argument that SLA and TLA should be treated differently.

2.5 L2 versus L3 Acquisition

Leung (2005) compares the initial state of an L2 with the initial state of an L3 to determine whether or not L2 acquisition theories are equally valid for L3 acquisition. The participants in her study are two groups of learners of French. The L3 French group was comprised of L1 Cantonese and L2 English speakers. The L2 French group spoke Vietnamese as an L1. These participants completed tasks designed to examine the following grammatical properties: Determiner (Det), Number (Num), the strength of the Num feature and the formal feature [+/- definite]. The author explains her results in light of two opposing models of acquisition: Smith & Tsimpili's (1995) Failed Functional Features Hypothesis (FFFH) and Schwartz & Sprouse's (1996) Full Transfer Full Access (FTFA) model. These hypotheses differ from each other in their ways of conceptualizing L2 grammar development and in their notions of what the initial state of an L2 grammar contains.

In regards to SLA, the FFFH asserts that properties such as functional categories, official traits, and trait strength, which are not active in the L1, will not be acquired in the L2. The implication for TLA is that these same properties will not be acquired in the L3 either.

In contrast, FTFA supposes that all properties, functional and lexical, will transfer. FTFA further proposes that L2 learners have full access to both of the aforementioned categories, which also happen to be present at the onset of SLA. Learners restructure their grammar based on contact with input from the L2. According to this hypothesis, the L2 initial state is the L1 final state.

Leung's (2005) results show full transfer from the L1 into the initial state of the L2, and partial transfer of the L2 into the initial state of the L3. In addition, the L3 learners of French obtained better results than the L2 learners of French, which is not compatible either with the FFFH or with FTFA, highlighting the fact that the field of TLA is not just

an extension of the field of SLA. In SLA, the L1 proves to be the only source of transfer whereas in TLA, the L1 and the L2 can simultaneously be sources of transfer.

De Angelis (2007) takes a different approach from that of Leung (2005) to demonstrate that not every language acquired after the L1 behaves in the same way. She compares the hypothesis of non difference, which proposes that a distinction between SLA and TLA (or fourth language acquisition, etc.) is redundant seeing as the process at the root of the acquisition of all non native languages is essentially the same, to the hypothesis of difference, which puts forth the idea that a distinction between different types of acquisition is imperative because former knowledge and experiences have a powerful effect on the acquisition process. By examining the evidence for both positions, she spotlights the phenomena which are only possible when more than one language is found in the mind of the speaker with the aim of showing that a difference truly does exist. One of these phenomena is CLI. CLI, a term first introduced by Sharwood Smith & Kellerman (1986), refers to the phenomenon surrounding the interaction between languages acquired earlier and later on in the life of a speaker. Studies focusing on CLI try to explain how and in which circumstances previous linguistic knowledge influences the production, comprehension, and development of the target language (TL). When more than two languages occupy the mind of a speaker, at least two types of CLI become possible: CLI between the source language and the TL and the simultaneous CLI of another language on the TL.

Previous research conducted on multilingualism has identified certain factors that could affect the dependence that a learner has on already acquired languages or limit the type and quantity of CLI on the TL (Cenoz, 2001; De Angelis & Selinker, 2001; Dewaele, 1998; Möhle, 1989; Odlin, 1989; Williams & Hammarberg, 1998, etc.). We describe these factors in detail in Section 2.6.

2.6 Factors that Condition the Degree of CLI in SLA and TLA

2.6.1 Typological Distance

Typological distance refers to the structural characteristics which are either similar or different between languages and their families that linguists can objectively define. Kellerman (1995) is of the belief that similarities between the source language and the TL are responsible for transfer, whereas differences between languages do not contribute to the interference which manifests itself. In other words, the instances of transfer between the L1 and the L2 increase according to the number of similarities that the learner perceives between the two. Learners often perceive a distance between the languages that they know, but this perceived difference may not always be in synch with the actual distance. Polyglots have a tendency to be subjected to more influence on the part of the languages that they consider typologically closer to the TL. When several languages are present in the mind of the speaker, this cognitive link favours the usage of non native words and structures because, from their point of view, non native languages come across as sharing more similarities with the TL than does their mother tongue. Williams & Hammarberg (1998) study the acquisition of L3 Swedish by an L1 English speaker who draws upon her L2 German more so than on her mother tongue to facilitate communication in her L3. They postulate that the learner's behaviour resulted from a conscious strategy on her part as a means of disguising her L1 identity. In contrast, De Angelis (2005) argues that the notion of "foreignness" is a cognitive constraint rather than a strategy that a learner can control, because learners establish cognitive connections between all of the foreign languages that they have knowledge of, thereby attributing a common status to the lot.

2.6.2 Proficiency

Our understanding of the relationship between proficiency in the source language and CLI is less complete than our knowledge of how proficiency in the TL affects CLI due to the lack of studies which look into this variable. Thus, the predictions made in this section are based on the latter case. De Angelis & Selinker (2001) maintain that we are

more likely to encounter traces of CLI in the initial stages of acquisition when the speaker's knowledge of the TL is still weak and the need exists to fill in the blanks. However, this does not mean that CLI is absent in more advanced stages; the types of influence change according to the needs of the speakers and their fundamental knowledge. Odlin (1989) and Poulisse & Bongaerts (1994) remark that in the beginning, transfer is negative. That is to say, a speaker borrows an incorrect element from a previously acquired language due to a void in the grammar of the TL. In regards to comprehension, positive transfer typically takes place at advanced stages in the acquisition process when the speaker can take advantage of his or her supplementary linguistic knowledge, cognates in particular. If a learner is quite advanced, it is possible to witness interactions at the levels of structural syntax and semantics. Fuller (1999) distinguishes between transfer in the interlanguage of language learners and code-switching. She explains that the difference between these phenomena is linked to a lack of proficiency in one language. If a speaker is a balanced bilingual, we are dealing with code-switching. If a difference exists between the levels of proficiency in the languages of the speaker, we are talking about CLI.

2.6.3 Recency

Unlike typological distance and proficiency, recency is a factor that only applies to TLA and not SLA. According to Poulisse (1997), it is easier to access a word that one uses frequently as opposed to a word that one does not make use of so often. Following this principle, the languages that a learner uses frequently, or that he or she has used in the recent past, will have a stronger influence on the TL than other languages. Nevertheless, cases exist where lexical transfer from a language that has not been activated in many years has taken place. For example, Möhle (1989) discovered influences of French in the Spanish of L1 German speakers even though they had not used their French in current situations. These results suggest that recency is not a key factor affecting CLI.

2.6.4 Order of Acquisition

When the same combination of languages is involved, the L2 and the L3 develop links of varying strength with the L1 that help or hinder CLI. More specifically, the L3 has

stronger ties to the L2 than to the L1. Dewaele's (1998) study on the order of acquisition is probably the best known in the literature. He examined lexical inventions in the oral French of L1 Dutch speakers who had either L2 English and L3 French or L2 French and L3 English. He found that the Dutch who had L2 French preferred to look to their L1 for support whereas those who spoke L3 French relied more upon English, their L2. As these learners spoke the same combination of languages, Dewaele (1998) concluded that the order in which a language is acquired can determine the type of CLI found in the TL. Thanks to these TLA results, we are better able to understand another factor that does not apply to SLA research regarding the influence of the L1 on the L2.

It seems intuitive that CLI could occur at all linguistic sublevels (lexical, syntactic, semantic, etc.), but is it possible to predict which phenomena in particular are susceptible to CLI in a given language? When (morpho)syntactic phenomena are involved, some linguists (Döpke, 1997, 1998; Hulk & Müller, 2000; Müller & Hulk, 2001; Whitney, 1989, etc.), believe that they have identified the conditions that need to be satisfied in order for CLI to take place and their arguments are presented in Section 2.7.

2.7 CLI and Interface Phenomena

Döpke (1997, 1998) studied bilingual children raised in both English and German while working within the framework of the Competition Model of Bates and Whitney (1989). The children produced non-target structures for an extended period of time due to the input they received for partially overlapping structures in their two languages; these results led the author to propose that CLI was propelled by structural overlap. However, Hulk & Müller (2000) were the ones to expand upon this idea by trying to predict which syntactic phenomena in a given language would experience CLI. They postulated that in order for CLI to occur, two conditions had to be satisfied: presence of an interface phenomenon and structural overlap between the two languages at the surface level. By comparing the development of object drop (which involves both conditions) and root infinitives (only the former condition is satisfied) in a Dutch-French and a German-Italian child to monolingual children, they were able to confirm not only their own hypothesis but also that which postulates that CLI is due to language internal factors rather than language external factors such as language dominance. Later on, in Müller &

Hulk's (2001) longitudinal study on object omission in Romance languages, they specified that in order for CLI to occur, the distribution of the morphosyntactic construction in question must be regulated by the interface with discourse pragmatics. Partial structural overlap across two languages in bilingual L1 acquisition can be defined as construction X being used in context X and construction Y being used in context Y in language A, while language B uses construction X in both context X and context Y. In these instances, CLI results from mistakenly applying the overlapping construction X in language B to the inappropriate context Y in language A.

Now that we have seen how previous studies on mood selection, development of mood, acquisition of interface phenomena, UG, and CLI are interconnected, it is time to situate our own study within the literature. In order to do so, we summarize the pertinent research findings before explaining how our study adds to the dialogue in Section 2.8.

2.8 Situating Our Study within the Literature

Faingold's (2003) developmental model of mood shows us that there are parallels between the way that L1 and L2 speakers acquire mood, how mood has evolved over time, and how mood usage varies between dialects. These cross-linguistic and cross-field correspondences reveal general principles, such as unmarked forms appearing earlier in acquisition and marked forms being neutralized as history progresses. They also enable us to analyze concrete examples of NSs and NNSs of French and Spanish using mood in ways that deviate from the norm. However, as Faingold (2003) himself admits, his explanation of mood development is incomplete because it only takes internal factors into consideration and neglects to make reference to external ones as well. As a result, a sociolinguistic study of mood alternation would be useful in helping us to fill in gaps in our knowledge of this subject matter.

As noted in Section 2.2, the rules that govern the choice of the subjunctive versus the indicative can be quite complicated because prescriptive grammar makes a distinction between obligatory subjunctives (when the subjunctive is lexically selected by the matrix verb or impersonal expression) and optional subjunctives (where the choice between the subjunctive and the indicative changes the interpretation of the sentence without affecting

its grammaticality). When strong intensional verbs, negation, or interrogation are used, grammatical mood alternation is permitted in both French and Spanish. Additionally, we are aware that a (not infallible) relationship exists between specificity and the indicative and non-specificity and the subjunctive. This information underlines the importance of creating research instruments designed to test variability in the usage of the subjunctive.

Upon closer inspection, we discover that contexts where mood can alternate without ungrammaticality in French and Spanish are located at the morphosyntax-pragmatic interface. In fact, there is an on-going debate as to whether or not adult L2 learners can successfully acquire grammatical concepts located at the interface of a linguistic and non-linguistic system; our study strives to contribute to this dialogue.

Other related lines of SLA research hypothesize that L2 learners have no access, full access, or partial access to UG. According to White (2003), the strongest argument in favour of the existence of UG principles in interlanguage is the native-like acquisition of a property that cannot be acquired purely by being exposed to input from the L2, including inference based on frequency, analogy, or instruction. Moreover, this phenomenon must manifest distinct behaviour in both languages so that its acquisition cannot be attributed to transfer. Given that the acquisition of grammatical mood alternation in French and Spanish by L1 English speakers fits this description, if results from our study were to show NNSs using mood in the same way as NSs, they would lend support to the hypothesis of full-access to UG.

Seeing as it is not uncommon for L1 English speakers studying L2 French at the university level to also be studying L3 Spanish, we had to take the linguistic backgrounds of our participants into account before fully designing our study. Leung (2005) and and De Angelis (2007) present convincing arguments that SLA and TLA differ from each other in that in SLA only the L1 can be a source of transfer, whereas in TLA the L1 and L2 can influence the L3 simultaneously. Certain factors that could affect the type and quantity of CLI on the TL have been identified as: typological distance, proficiency, recency, and order of acquisition. This information is useful not only for constructing research questions, but also for designing the most effective test instruments. Lastly,

thanks to Hulk & Müller (2000) and Müller & Hulk (2001), we can predict with some certainty that the morphosyntax-pragmatic phenomenon that our study examines is indeed susceptible to CLI.

In brief, our study aims to identify the sources of CLI in the L2 and L3 acquisition of one morphosyntax-pragmatic interface phenomenon in particular on the part of L1 English speakers: grammatical mood alternations in French and Spanish. So as to have the opportunity to examine both internal and external factors, we have chosen to take a sociolinguistic approach. With regards to internal factors and cases where external factors apply to both NS and NNS (e.g. demographic traits), we carry out an analysis for both groups with the sole purpose of having as many points of reference as possible for the latter. Concerning cases where external factors apply only to our learner population, having points of reference is not an objective. Rather, we intend to answer Firth and Wagner's (1997) call for a better balance between the cognitive and the social in SLA research. More recently, Tarrone (2007) provides further evidence supporting the view that social and linguistic contexts affect L2 linguistic use, choice, and development. However, the author laments that few SLA approaches that explore the relationship between social context, cognition, and L2 use have delved into the acquisition of specific linguistic forms, rules, or systems, which has subsequently become an aim of our study. Finally, our results will extend two SLA debates into the field of TLA: whether or not L2 and/or L3 adult learners can acquire interface phenomena, and the amount of UG available to L2 and L3 NNSs.

Chapter 3

3 Hypotheses

First, we present our hypotheses for the control groups so that we can have points of comparison for the results of the NNSs. Next, we make our predictions about the students.

3.1 Hypotheses for Control Groups

The following hypotheses for the control groups are divided into the effect of external (social) factors and internal (systematic) factors.

3.1.1 Hypotheses Relating to External Factors

External factors which could interact to create linguistic variation are: the sex, age, social status, education, occupation, and geographical origin of the speaker. Our hypotheses related to these factors are presented below.

a. Sex. Women tend to use the standard form of a linguistic variable whereas men privilege the vernacular form (Labov, 1972: 243), therefore the women will favour the subjunctive and the indicative in their normatively prescribed contexts more frequently than the men. However, since women also tend to lead linguistic change (Labov, 1972: 303) and the subjunctive has been shown to be susceptible to neutralization over the passage of time, this hypothesis is more of a research question.

b. Age. In regards to age, one must acknowledge a difference between changes over time and age-graded changes. For example, sometimes the differences in speech from one generation to another can be attributed to the progress of a linguistic innovation that occurred over the decades separating the two age groups. Age-graded changes, on the other hand, refer to predictable changes that a child's speech undergoes as he or she matures and accommodates to adult society (Chambers & Trudgill, 1998: 151-52), as well as to changes that take

place in language use at any point during a speaker's lifespan (Blondeau & Sankoff, 2007: 584).

Ager (1990: 118) states that older speakers tend to be more conservative than younger speakers in regards to prescriptive grammar because each generation thinks that their language variety is superior to that used by subsequent generations. For this reason, older speakers will perform more normatively on the task than younger ones.

c. Social class. A relationship exists between social class and linguistic variation (Labov, 1972: 115). In our questionnaire, highest level of education and occupation were used as indicators of social class. We predict that the higher the level of education, the higher the tendency to prefer the prestigious variant because formal grammar instruction discourages the use of non-standard variants in written and oral contexts. Consequently, those with graduate and professional school level education will outperform those with an undergraduate education, who will in turn obtain higher scores than those with a high school education, since complex grammatical structures are less accessible than basic structures without prolonged instruction. As a logical extension of this hypothesis, speakers who have a job that requires a professional degree will show evidence of more normative usage than those who have a job that does not require one due to more exposure to prestigious variants.

d. Origin. Geographical divisions encourage the loss of homogeneity in a language due to contact with other languages, lack of contact with the language of origin, and reduced access to more formal principles (Penny, 2000: 28-30). Just as Faingold (2003) found examples of dialectal differences in the usage of the obligatory subjunctive, we too expect to find variation in regards to the way speakers from different regions interpret the subjunctive. To a certain extent, this is also a research question because we are interested in identifying how and where these dialectal differences manifest themselves.

3.1.2 Hypotheses Relating to Internal Factors

Previous studies on mood usage (see Chapter 2) reveal that certain linguistic factors favour the selection of one mood over the other. Our hypotheses, presented below, are based on these documented observations. While both obligatory and optional subjunctive contexts are treated in the literature, only the latter is examined in the present study. The contexts where mood can alternate without ungrammaticality fall into three categories: strong intensional verbs, negation, and interrogation. Mood alternation behaves similarly in French and Spanish in all three contexts, hence the reason why they were chosen.

a. Neutralization. Markedness plays a role in mood selection. In cases of neutralization, the indicative (the less-marked form) replaces the subjunctive (the more-marked form). For this reason, deviations from the norm will proceed in this direction and contexts prescriptively requiring the indicative will be interpreted more accurately.

b. Frequency. The more frequent a structure is, the more likely it is to be used normatively. We do not have any examples from the literature to show us which of the structures—subordinate clauses introduced by a strong intensional verb that requires a subjunctive (SUB1); subordinate clauses introduced by a negated main clause that requires a subjunctive (SUB2); interrogative sentences with a subordinate clause that requires a subjunctive (SUB3); subordinate clauses introduced by a strong intensional verb that requires an indicative (IND1); subordinate clauses introduced by a negated main clause that requires an indicative (IND2); interrogative sentences with a subordinate clause that requires an indicative (IND3)—occur with more frequency, thus this point is more of a research question to help us identify them.

c. Saliency. Saliency plays a role in distinguishing differences between variants. In Spanish, the subjunctive morphology is always perceivably different from that of the indicative, making it easier to recognize as a distinct form than in the case of French, where the three singular persons are homophones for regular verbs from the first group. Consequently, mood distinction as a whole in

Spanish will be acquired more precisely than in French. However, as we have found no support in the literature for this hypothesis, it is more of a research question.

d. Complexity. Complex structures are more difficult to acquire than simple ones. Since Kempchinsky (1995) notes that children acquire the subjunctive in subordinate clauses introduced by emotive verbs in the presence of negation much later than subordinate clauses introduced volitional verbs, we hypothesize that negation is a more complex operator than strong intensional verbs and will therefore be interpreted less normatively than the latter. As for interrogation involving grammatical mood alternation, we were unable to find any data to help us develop our hypothesis and thus must treat this topic as a research question.

3.2 Hyphotheses for Students of French and Spanish

Although the main focus of this study is on CLI, it also contains a secondary level of inquiry which stems from Watson-Gegeo and Nielsen's (2003) observation that there is a need for studies that look at language learning in conjunction with significant social factors, as well as Bayona's (2009) study which uncovered possible correlations between the participants' socio-demographic data and their performance on a written task in L3 Spanish. As such, our hypotheses are divided into three parts: CLI related to L3 acquisition of the Spanish subjunctive; the influence of demographic traits and linguistic background on the acquisition of mood in French and Spanish by NNSs; and internal factors.

3.2.1 Cross-linguistic Influence

a. L2 learners' performance on scenario selection task. Borgonovo *et al*. (2008) used an appropriateness judgment task and a sentence combination felicity task to compare how Spanish NSs and Spanish L2 speakers with French as an L1 distinguished between the subjunctive and the indicative in contexts where mood can alternate without ungrammaticality. They found a strong parallel between the results of the NSs and the advanced learners, but this similarity could be due to the fact that both languages exhibit mood distinctions. However, given that

the results of the intermediate learners point towards vulnerability, native-like attainment of mood distinctions in L2 Spanish seems to be more of a question of proficiency than of typological similarity between the TL and the source language. To be sure, the researchers advise testing learners with an L1 that does not contain the same interface phenomenon. Hence, we postulate that our L1 speakers of English who are either advanced learners only of L2 French or only of L2 Spanish will perform well on the scenario selection task, but perhaps not as well as those who have French as an L2 and Spanish as an L3, for reasons expanded upon in the following hypothesis.

b. L3 learners' performance versus L2 learners' performance on scenario selection task. Given that previous research on multilingualism (Cenoz, 2001; De Angelis & Selinker, 2001; Dewaele, 1998; Möhle, 1989; Odlin, 1989; Williams & Hammarberg, 1998, etc.) has identified certain factors that could affect the learner's dependence on already acquired languages or limit the type and quantity of the influence on the TL, measures were taken to control for: typological distance; proficiency in the source and target languages; recency; and order of acquisition. Only English NSs currently taking the university's advanced French grammar and/or advanced Spanish grammar course(s) were invited to participate in this study. Since all of the students had recently received in-class instruction concerning the optional subjunctive in all of the contexts presented in the selection scenario task, we hypothesize that they will obtain similar results in each. However, seeing as mood alternation behaves in an identical fashion according to prescriptive rules in both French and Spanish, we further hypothesize that the increased contact with the optional subjunctive on the part of the L3 learners will reinforce the concept and lead to more native-like proficiency in regards to this morphosyntax-pragmatics interface phenomenon in both French and Spanish.

3.2.2 Influence of Demographic Traits and Linguistic Background

We hypothesize that both the demographic traits and the linguistic background of NNSs influence their acquisition of mood in French and Spanish:

a. Sex. Although females generally outnumber males in language courses, we do not foresee any difference between their performances on our scenario selection task seeing as at this advanced level the language learners have been self-selected, meaning that both sexes have equal interest in learning the TL.

b. Age. We predict that the performance of the participants will decrease as their age increases due to maturational constraints. Long (1990) and Obler, Feign, Nicholas, & Albert (1991) suggest that biologically based neurological processes are responsible for maturational constraints in SLA. Examples of these processes are lateralization of the brain and myelination. For example, the ability to acquire grammatical knowledge deteriorates with the myelination of neural pathways which render the brain less malleable. This age-related loss in the ability for a speaker to achieve native-like attainment in their L2 is gradual, not abrupt, and starts in childhood.

c. Residence 8-18. We hypothesize that those who lived abroad between the ages of 8-18 will only have an advantage over those who lived in Canada during this period if they were in an environment where the TL was dominant. The length of their stay will also be a factor, as will be the dialect that they were exposed to since variation exists in the way that NSs interpret mood.

d. Origin of parents. We predict that having one or two foreign parents will only aid in the acquisition of mood if they are of French or Spanish-speaking origin.

e. Occupation of parents. We conjecture that having at least one parent whose occupation requires a professional degree will increase the participant's performance on the selection scenario task due to the tradition of academic pursuits in the family.

f. Field of studies. Siegel (2003) believes that educational contexts may affect the acquisition of non native languages. Consequently, we hypothesize that students who specialize in languages will outperform those who do not.

g. Age of initial acquisition. Humans are thought to have phases in their lives when they are more sensitive to acquiring language skills. For example, Krashen, Long, & Scarcella (1982) believe that after the age of 6 or 7, learners gradually lose the ability to achieve native-like attainment in their L2 and that this ongoing loss persists through childhood and puberty. When speaking of native-like attainment, Lee & Schachter (1997) and Schachter (1996) argue the importance of distinguishing between native-like performance and native-like competence if the L2 was acquired after the sensitive period. For example, just because L2 speakers perform in a native-like manner does not mean that their underlying linguistic competence is identical to that of NSs. In order to accommodate for this discrepancy, we chose a research instrument that evaluates both performance and competence and postulate that the scores of the participants on the scenario selection task will increase as their age of initial acquisition decreases, due to reasons linked to the sensitive period hypothesis.

h. Place of initial acquisition. We foresee that the performance of the participants will be the highest if they first learned the TL at home, and that those who first learned it in primary school will outperform those who began learning it in secondary school.

i. Role of the target language in school. Hoch (1998), Hakuta (1986), and Genesee (1984) have found that immersion programs provide an effective and efficient means of acquiring an L2. As such, we predict that the participants who received instruction in the TL will outperform those who learned it as a subject. Since Canada only has a French immersion system and not a Spanish one, we confine this hypothesis to the students of French.

j. Length of stay in a region where the TL is spoken. Howard (2005) affirms that exchange programs enhance language performance. However, as the usage of the subjunctive versus the indicative in contexts where mood can alternate without grammaticality is a very complex concept involving not only grammatical but also pragmatic skills, a large amount of exposure to the TL

would be needed to reinforce this concept. For this reason, we hypothesize that only the students who have spent a year or more in a region where the TL is spoken will perform more native-like than the others. The dialects that these students were exposed to must also be taken into consideration as variations in mood alternation exist amongst NSs.

k. Place(s) where the TL is used. We conjecture that the participants who only use the TL at school will obtain lower scores than those who also use it elsewhere. Furthermore, we guess that using the TL at home would be more advantageous than using it while engaged in other types of activities.

l. Hours spent in the TL per week. We do not foresee a couple of hours making a difference in the acquisition of mood selection, seeing as much of that time is spent in class where other topics are being addressed.

m. Self-assessment of the skills in the TL on a scale of 1-4. As the level of proficiency of the students taking a specific course can vary, we decided to gauge their skill level not only by the course(s) they were taking, but also by their own perception of these skills. Following this line of thought, we hypothesize that the higher the self-assessment score, the better the score on the scenario selection task.

n. Languages spoken in addition to English and the TL. We guess that the number of languages spoken in addition to English and the TL will only make a difference if these extra languages use mood alternation similarly to the way it is used in the TL. The more this concept is reinforced, the better the participant's performance will be.

3.2.3 Hypotheses Relating to Internal Factors

See Section 2.1.2.

In sum, we have listed external and internal factors which present possible cause for linguistic variation regarding the interpretation of the optional subjunctive amongst both NSs and NNSs. For some of these factors, we used previous research to formulate hypotheses. In other cases, a deficit in previous studies led us to put forth research questions rather than concrete conjectures. In Section 4, we lay out the methodology that we deemed to be best suited in order to test these hypotheses and find answers to our research questions.

Chapter 4

4 Methodology

In this section, we describe the participants and the linguistic groups to which they belong, the linguistic profile and the scenario selection task that they completed, the supplementary second language learner questionnaire that the NNSs filled out, and the way in which the tasks were administered and analyzed.

4.1 Participants

The participants belong to three main categories: control groups, students of French, and students of Spanish.

The first control group is made up of 43 French NSs who speak a variety of dialects from the following regions: Ontario (7), Quebec (11), Acadia (7), French-speaking Europe (14), and French-speaking Africa (4). They also vary according to demographic traits such as sex, age, and social class. The second control group is made up of 22 NSs from the following countries: Spain (2), Argentina (1), Uruguay (1), Mexico (8), Columbia (5), Valenzuela (1), and Peru (4). Table 1 gives a detailed breakdown of the demographic characteristics of the French and Spanish NSs.

In order to recruit NSs coming from diverse regions, it was necessary to invite them to use an online questionnaire. A link to the questionnaire (www.simpleinternetconsulting.ca/audrey) was distributed by email to graduate students in French and Spanish at an Ontario university, as well as to various French and Spanish-speaking organizations. The letter of information (see Appendix C) encouraged the participants to forward the link to other French and Spanish NSs whom they thought would be good candidates to participate in this study.

Given that multilingualism is so prevalent in our modern world, the concept of a NS cannot be classified as black and white and therefore it is imperative that we explain who qualified as a ‘NS’ for the purposes of our study. According to Davies (2003), with the exception of early childhood exposure to a language, all other characteristics (e.g.

intuitions, creativity, etc.) of a NS are contingent upon other factors. The author discusses the concept of a NS in terms of the Critical Period Hypothesis, the role of Standard Language in the NS's life, the kinds of knowledge (metalinguistic, discriminating, and communicational skills) the NS possesses, the importance of communicative competence in the NS's interactions, whether the NS uses the language at home, as an L1, as a dominant language, etc. Due to our limited contact with the NSs in our study, we decided to narrow our criteria down to the following: self-ascription of NS status and his or her formative years spent in a region where the language in question was the dominant language.

Table 1: Demographic Traits of the French and Spanish Native Speakers.

Trait	French native speakers	N	Spanish native speakers	N
Sex	Male	18	Male	10
	Female	25	Female	12
Age	18-29	29	18-29	13
	30-39	9	30-39	7
	40+	5	40+	2
Level of	High school	9	High school	2
Studies	Undergraduate	10	Undergraduate	5
	Grad school	24	Grad School	15
Occupation	Student	20	Student	17
	Degree required	3	Degree required	2
	No degree required	20	No degree required	3
Residence	Ontario	7	Spain	2
8-18	Quebec	11	Argentina/Uruguay	2
	Acadia	7	Mexico	8
	French Europe	14	Columbia/Venezuela	6
	Africa	4	Peru	4
Total		43		22

The 23 students of French can be divided into two groups: L2 students of French without knowledge of Spanish (15) and L2 students of French with L3 knowledge of Spanish (8). The 13 students of Spanish can also be placed into two groups: L2 students of Spanish without knowledge of French (5) and L3 students of Spanish with knowledge of French (8). The demographic traits and language learning background of these students are displayed in Table 2.

Table 2: Demographic Traits of the French and Spanish Students.

Trait	French Students	N	Spanish Students	N
Sex	Male	6	Male	4
	Female	17	Female	9
Age	18-19	12	18-19	4
	20-29	7	20-29	8
	30+	4	30+	1
Residence 8-18	Abroad	4	Abroad	3
	Canada	19	Canada	10
Origin of Parents	2 Foreign Parents	7	2 Foreign Parents	5
	1 Foreign Parent	5	1 Foreign Parent	5
	2 Canadian Parents	11	2 Canadian Parents	3
Occupation of Parents	0 requires a degree	11	0 requires a degree	7
	1 requires a degree	8	1 requires a degree	3
	2 require a degree	4	2 require a degree	3
Field of Studies	No specialization in languages	12	No specialization in languages	9
	Specialization in languages	11	Specialization in languages	4
Age of Initial Acquisition	8-18	11	8-18	8
	Before age 8	12	Before age 8	1
	After age 18	0	After age 18	4
Place of Initial Acquisition	Secondary School	3	Post secondary school	3
	Primary School	20	Secondary school	9
	Home	0	Home	1

Table 2. Continued.

Trait	French Students	N	Spanish Students	N
Role of the TL in School	Subject	16	Subject	12
	Medium of instruction	7	Medium of instruction	1
Length of Stay in a Region Where the TL is Spoken	0-5 weeks	10	0-5 weeks	8
	6 weeks-11 months	9	6 weeks-11 months	4
	1 year or more	4	1 year or more	1
Place(s) Where the TL Is Used	Only school	12	Only school	5
	School + other	7	School + other	5
	School + home	4	School + home	3
Hours Spent in the TL per Week	0-2	8	0-4	6
	3-6	8	5-6	4
	6+	7	7+	3
Self-assessment of Skills in the Target Language on a Scale of 1-4, 4 Being the Highest	1	7	1	5
	2-3	11	2-3	4
	4	5	4	4
Languages Spoken in Addition to English and the TL	0	10	0	3
	1	9	1	8
	2+	4	2+	2
Type of Student	French Student without Spanish	15	Spanish Student without French	5
	French Student with Spanish	8	Spanish Student with French	8
Total		23		13

In order to recruit the students of French and Spanish, I visited all sections of the advanced French grammar course being offered and both sections of the advanced Spanish grammar course being offered by the host university. After giving a brief explanation of the study, I distributed the test instruments to interested students during class time; they were asked to complete tasks during their own time without any outside help. These visits took place at the end of the semester so as to ensure that mood selection had been covered in its entirety before the students were evaluated on their knowledge. If French students felt that they had a high enough level of Spanish to complete the tasks in Spanish as well, they were provided with the supplementary instruments and vice versa. Luckily, there was overlap between the students of French and the students of Spanish. All 8 of the advanced students of Spanish who also completed the tasks in French were simultaneously enrolled in the advanced French grammar class. In other words, the L2 students of French with knowledge of Spanish were also the L3 students of Spanish with L2 knowledge of French. Although other students of French claimed to have knowledge of Spanish and other students of Spanish claimed to have knowledge of French, their self-assessment proficiency scores were that of beginners and they did not attempt the tasks in the other language in question.

4.2 Tasks

4.2.1 Linguistic Profile

The linguistic profile (see Appendices E and G) is a questionnaire used to determine the demographic characteristics such as the age, sex, social class, and origin of each participant. In regards to the dialect spoken by NSs, only the participants' place of residence from ages 8-18 was taken into account as this is the period of time when one receives formal language education. The participants from the control groups completed the linguistic profile in their mother tongue while the NNSs chose whether they wanted to complete it in French or Spanish.

4.2.2 Scenario Selection Task

The scenario selection task (see Appendices F and H) is a test to see if the participants are able to choose the appropriate context according to the mood. The French version and

the Spanish contained similar scenarios; NSs and NNSs completed the task according to the language(s) they spoke. The task consisted of 18 sentences, 9 with a subordinate clause that contains a subjunctive and 9 with a subordinate clause that contains an indicative; only verbs with saliently different subjunctive and indicative forms were used. The sentences were equally divided between the following contexts: subordinate clauses introduced by a strong intensional verb that requires a subjunctive (SUB1); subordinate clauses introduced by a negated main clause that requires a subjunctive (SUB2); interrogative sentences with a subordinate clause that requires a subjunctive (SUB3); subordinate clauses introduced by a strong intensional verb that requires an indicative (IND1); subordinate clauses introduced by a negated main clause that requires an indicative (IND2); interrogative sentences with a subordinate clause that requires an indicative (IND3); all sentences with subordinate clauses requiring a subjunctive (SUBALL); all sentences with subordinate clauses requiring an indicative (INDALL). Examples of each context can be seen in (1) to (3). In addition, 6 distractors contrasting the simple past with the imperfect were integrated into the randomized task.

(1) Strong Intensional Verbs

a. Je cherche quelqu'un qui *sache* (SUB1)/*sait* (IND1) parler basque.

b. Estoy buscando (a) alguien que *hable* (SUB1)/*habla* (IND1) euskera.
'I am looking for someone who speaks Basque.'

(2) Negation

a. Je ne vois pas de voiture qui me *convienne* (SUB2)/*convient* (IND2).

b. No veo un coche que me *convenga* (SUB2)/*conviene* (IND2).
'I don't see a car that suits me.'

(3) Interrogation

a. Est-ce que vous connaissez un magasin de meubles qui *vende* (SUB3)/*vend* (IND3) des meubles anciens?

b. ¿Conoce una mueblería que *venda* (SUB3)/*vende* (IND3) muebles antiguos?
'Do you know a furniture store that sells antique furniture?'

In Borgonovo, Bruhn de Garavito & Prévost (2008), methodological issues are raised concerning traditional interpretation tasks. Traditional interpretation tasks go from context to form (i.e. presentation of a context X followed by a choice between sentences W and Y), and may not test whether or not an interpretation triggered by a particular morphosyntactic device has been acquired. In order to avoid mirroring the production side of the equation, the experiment needs to proceed in the opposite direction, going from form to interpretation, which mirrors comprehension. Context-to-form tasks may show whether a speaker has acquired a link between interpretation and form or not. However, form-to-interpretation tasks aim to show that a certain form primes a certain interpretation. As the second type of task proved to be more reliable in the Borgonovo *et al*. (2008) study, this was the methodology adopted for the current study.

A major difference, however, between the two test instruments is the use of specificity markers. Contrary to Borgonovo *et al*. (2008), the sentences in the scenario selection task for this study used definite and indefinite articles to force non-specific and specific interpretations, respectively. In the case of Spanish, the personal *a* preposition was omitted when a non-specific reading was desired. Initially, only indefinite articles were used because either mood can be selected in these cases depending on the context. Subsequently, upon the advice of our two native Spanish-speaking informants and two native French-speaking informants who were unable to choose just one context in several questions, definite articles were inserted into sentences containing an indicative to ensure a specific interpretation.

An extract from the scenario selection task is shown in (4).

(4)

a. Xavier vient d'acheter une maison de l'époque victorienne. Il veut trouver des meubles de la même époque, mais la majorité des magasins dans son quartier semblent ne vendre que des meubles modernes. Il demande à ses voisins : Est-ce que vous connaissez un magasin de meubles qui *vende* des meubles anciens? b. Xavier vient d'acheter une maison de l'époque victorienne. Il veut trouver des meubles de la même époque, et il a entendu dire qu'il y en a un au centre ville. Il demande à ses voisins : Est-ce que vous connaissez un magasin de meubles qui *vende* des meubles anciens?	**a** b ?

a. Javier se compró una casa que fue construida en el siglo XVIII. Ahora sólo quiere comprar muebles que combinen con la arquitectura de la casa, pero la mayoría de las tiendas solo tienen muebles modernos. Le pregunta a su amigo: ¿Conoces una mueblería que *venda* muebles antiguos? b. Javier se compró una casa que fue construida en el siglo XVIII. Ahora sólo quiere comprar muebles que combinen con la arquitectura de la casa y ha escuchado hablar sobre una tienda que queda en el centro que vende muebles exclusivamente de este siglo. Le pregunta a su amigo: ¿Conoces una mueblería que *venda* muebles antiguos?	**a** b ?
a. 'Xavier has just bought an 18th Century house. He wants to furnish it with furniture from the same era, but the majority of stores in his neighbourhood seem to only sell modern furniture. He asks his neighbours: Do you know a furniture shop that sells antique furniture?' b. 'Xavier has just bought an 18th Century house. He wants to furnish it with furniture from the same era and has heard of a furniture shop downtown that sells furniture exclusively from this century. He asks his neighbours: Do you know a furniture shop that sells antique furniture?'	**a** b ?

Since the verb in the example sentence contains a subjunctive, the correct context is the first one in which the speaker is unsure of whether or not such a shop exists. If the verb had been in the indicative, the second context would have been preferred because the speaker is certain of the furniture shop's existence.

4.2.3 Questionnaire: French and/or Spanish as (a) Second Language(s)

A second questionnaire (see Appendix I) was administered in English to the students of French and Spanish to determine their level of proficiency in all of the languages that they speak, age and place of acquisition of the TL(s), frequency of use of the TL(s), and length of time spent in an environment where the TL(s) is (are) spoken.

4.3 Data Analysis

4.3.1 Linguistic Profile

The answers given in the linguistic profiles and the language learner questionnaires were coded and then entered into SPSS so that a 1-way analysis of variance (ANOVA) could determine whether significant differences existed among these independent (demographic) variables in terms of their apparent effects on the dependent variable, the mean scores on the scenario selection task. In the case of the learners, their language learning information was also taken into account. The process was then repeated to make comparisons between the different types of students as well as between the students and the NSs.

If a statistically significant effect is revealed in an ANOVA when the means of two groups are being compared (e.g. interpretation of mood alternations by French students versus Spanish students), it is obvious which groups are significantly different. However, when three or more means are being compared and the ANOVA detects a significant difference between them, it is impossible to know which means differ without conducting a follow-up test. For example, if you discover that there is a significant difference between the way that Spaniards, Mexicans, and Peruvians interpret mood, you cannot tell where the dialectal divisions exist until you perform a post-hoc test separating them into subsets. Moreover, if the ANOVA does not detect a significant difference between all three of the groups, this does not mean that there is not a significant difference between two of the three. In this case, the Duncan test is useful because it can separate the two significantly different means by placing them into their own subgroups, with the one mean that is not significantly different from the other two belonging to both new groups. It is important to note these significance values are never shown because it is understood that they are $p<.005$; otherwise, separate subgroups would not be created. The significance values which appear at the bottom of each subgroup merit their own explanation so as to be interpreted correctly. If the significance value is very high ($p>.950$), this represents homogeneity and means that the two means in the subgroup are significantly similar and that these two groups behave the same. However, if the significance value is between .950 and .005 ($.005<p<.950$), it means that even though

these means have been placed in the same subgroup, these groups do not manifest significantly similar tendencies. Nevertheless, such information does not change the fact that the means in this subgroup are significantly higher or lower than those in another subgroup.

In the case of our Duncan test results, it must be noted that the means displayed in our tables are only estimated means since the sizes of our groups were uneven. If the sizes of our groups had been the same, SPSS would have left them as they were rather than making these automatic adjustments.

A number of methods, known as multiple comparison procedures, have been developed for determining which means differ. Since they all have pros and cons, choosing the most appropriate one for this study was a challenge. After consulting Dr. Martin Olazar, a professor with a strong background in statistics from The University of the Basque Country, we finally made a decision. With our small sample size, it was ill-advised to use the Tukey procedure due to its conservative reputation. The Newman-Keuls may be more powerful (e.g. less conservative) than the Tukey, but Duncan's Multiple Range Test was created to be more powerful than the Newman-Keuls. We are well-aware that the Duncan has a greater risk of making Type I errors than the Tukey, but would rather err on the side of caution, knowing that a larger-scale study in the future could help rule out false positives. Furthermore, our choice was supported by Keselman & Lix (1995) who recommend that researchers in the social sciences and humanities adopt Duncan's method in certain situations after comparing numerous multiple comparison procedures.

4.3.1.1 Linguistic Profiles of French Native Speakers

Regarding place of residence from ages 8-18, certain groups encompass larger geographical locations than others. For example, the 4 speakers from Senegal, Burundi, and Congo were placed together under the heading of "Africa" so as to create a group large enough for statistical comparison. Likewise, the lone speaker from Switzerland was combined with the 13 from France to create the group "French Europe." As for age groups, 18-19-year-olds and 20-29-year-olds were merged so that the one speaker in the

18-19-year-old group could be included in the statistical analyses. The groups over 40 had so few speakers that they were all combined as well for statistical purposes.

4.3.1.2 Linguistic Profiles of Spanish Native Speakers

Concerning place of residence from ages 8-18, certain countries with only 1 speaker had to be combined so as to allow for statistical comparisons. Given the geographical proximity of Argentina and Uruguay, they seemed to form a logical group. The Venezuelan speaker was added to the Columbian group for similar reasons. In the case of age groups, the two 18-19-year-olds were put into the 20-29-year-old category so as to mirror the French NS age divisions. All of the groups over 40 years of age were merged as well for statistical purposes.

4.3.1.3 Linguistic Profile of French and Spanish Students

Certain categories had to be collapsed for the students of French and Spanish in order to improve statistical conditions. For example, all age groups above 20-29 were combined into "30+". As for residence from 8-18, the countries mentioned outside of Canada were varied and so were put under the general category of "Abroad". For similar reasons, parents born in another country received the general classification of "Foreign." The parents' occupations were also quite diverse, and so it was most helpful for the purposes of this study to divide them into occupations requiring a professional degree or not. In addition, rather than create multiple subfields of studies, only two categories were created: specialization and non specialization in languages.

4.3.2 Scenario Selection Task

The answers for the scenario selection task were entered into an Excel spread sheet. A wrong answer received a score of 0, an indecisive answer was attributed a 1, and a correct answer was allotted a 2. Each question was regrouped into its appropriate category: subordinate clauses introduced by a strong intensional verb that require a subjunctive (SUB1); subordinate clauses introduced by a negated main clause that require a subjunctive (SUB2); interrogative sentences with a subordinate clause that requires a subjunctive (SUB3); subordinate clauses introduced by a strong intensional verb that

require an indicative (IND1); subordinate clauses introduced by a negated main clause that require an indicative (IND2); interrogative sentences with a subordinate clause that requires an indicative (IND3); all sentences with subordinate clauses requiring a subjunctive (SUBALL); all sentences with subordinate clauses requiring an indicative (INDALL); all of the sentences. Next, the mean scores and standard deviation for each subgroup were obtained. The mean scores were then entered into SPSS for comparison with the information obtained with the linguistic profiles and language learner questionnaires. See Section 4.3.1 for details concerning the statistical analysis.

4.3.3 Questionnaire: French and/or Spanish as (a) Second Language(s)

The information from the language learner questionnaire was coded and entered into SPSS; the details concerning the statistical analysis can be found in Section 4.3.1. However, certain subgroup divisions require further explanation. For example, the divisions for the hours spent per week in the TL differ for students of French and students of Spanish because students of Spanish receive more in-class instruction than do students of French. Concerning the initial age of acquisition, we took the sensitive period hypothesis into account and only created three divisions, which corresponded to before puberty, during puberty, and after puberty. Additionally, the self-assessment score of language proficiency was a mean value which combined the participants' evaluation of their reading, writing, listening, and speaking skills. These scores helped us to determine whether or not a participant spoke another language well enough for it to be included as part of their repertoire in addition to English and the TL; only scores of 2 or more were considered to be sufficient to include them in this category. Unfortunately, we did not ask our students to specify the order of acquisition of their languages, as we worked under the assumption that English-speakers in Canada first learn English at home, then French as a mandatory subject or medium of instruction in primary school, and finally Spanish as an optional subject in secondary school or university. Although our participants learned English, then French (if applicable), then Spanish (if applicable), a few also learned another language at home as heritage speakers, a detail we can deduce by looking at the origin of their parents and their self-assessment of their proficiency in

the language of that country, despite the fact that they were born and raised in Canada. Rather than reduce our sample size, we chose to examine the impact of this factor.

In brief, this section acquainted us with the demographic details of our French and Spanish NSs and NNSs, provided us with a detailed description of the tasks that these groups of participants had to complete, justified the reasoning behind choosing a scenario selection task to test our hypotheses, and explained how we analyzed our data, paying special attention to the decision to use a Duncan test as a pot-hoc test. In Section 5, we present the results of the aforementioned tasks accompanied by graphs and tables.

Chapter 5

5 Results

In this section, we analyze and comment on our results. In order to make the presentation of our data as legible as possible, we have included the tables of mean scores and standard deviation for the French and Spanish NSs and NNSs regarding all demographic and language learning divisions in Appendix J, along with their corresponding ANOVA results.

First, we present the results of the control groups so that we can have points of comparison for the results of the students. Next, we compare the results of the NSs and the NNSs. Finally, we describe the results of the students in detail.

To facilitate interpretation of the results, we have re-listed the types of contexts under investigation: subordinate clauses introduced by a strong intensional verb that requires a subjunctive (SUB1); subordinate clauses introduced by a negated main clause that requires a subjunctive (SUB2); interrogative sentences with a subordinate clause that requires a subjunctive (SUB3); subordinate clauses introduced by a strong intensional verb that requires an indicative (IND1); subordinate clauses introduced by a negated main clause that requires an indicative (IND2); interrogative sentences with a subordinate clause that requires an indicative (IND3); all sentences with subordinate clauses requiring a subjunctive (SUBALL); all sentences with subordinate clauses requiring an indicative (INDALL). Examples of each context can be seen in (1) to (3):

(1) Strong Intensional Verbs
   a. Je cherche quelqu'un qui *sache* (SUB1)/*sait* (IND1) parler basque.
   b. Estoy buscando (a) alguien que *hable* (SUB1)/*habla* (IND1) euskera.
   'I am looking for someone who speaks Basque.'

(2) Negation
   a. Je ne vois pas de voiture qui me *convienne* (SUB2)/*convient* (IND2).
   b. No veo un coche que me *convenga* (SUB2)/*conviene* (IND2).
   'I don't see a car that suits me.'

(3) Interrogation

a. Est-ce que vous connaissez un magasin de meubles qui *vende* (SUB3)/*vend* (IND3) des meubles anciens?

b. ¿Conoce una mueblería que *venda* (SUB3)/*vende* (IND3) muebles antiguos?

'Do you know a furniture store that sells antique furniture?'

5.1 French and Spanish Native Speaker Comparison

Figure 1 compares the mean scores of the French and Spanish NSs (see Table 86 in Appendix J for precise values) and Table 3 gives the corresponding significance values. Although overall both French and Spanish speakers seem to significantly interpret indicative sentences in the same way, a closer inspection of IND1, IND2, and IND3 tells a different story. In the case of IND1, Spanish speakers perform significantly closer to the norm than the French speakers, who favour the context requiring the subjunctive.

However, whereas the scores of the Spanish speakers remain the same for IND1 and IND3, the scores of the French speakers increase dramatically from IND1 to IND3 and surpass the IND3 scores of the other group by a nearly significant amount. IND2, on the other hand, does not show much variation. Contrary to our neutralization hypothesis, both groups scored higher on the subjunctives than on the indicatives, particularly regarding SUB1; it seems that strong intensional verbs easily trigger an indefinite interpretation in the minds of NSs. Our saliency hypothesis was not supported by the results either, seeing as the Spanish speakers' ability to interpret mood was not significantly more normative than that of the French speakers. Most notable, perhaps, is the fact that both groups of NSs fall short of the prescriptive norm in all of the mood categories, an observation that will be returned to when evaluating the results of the learners.

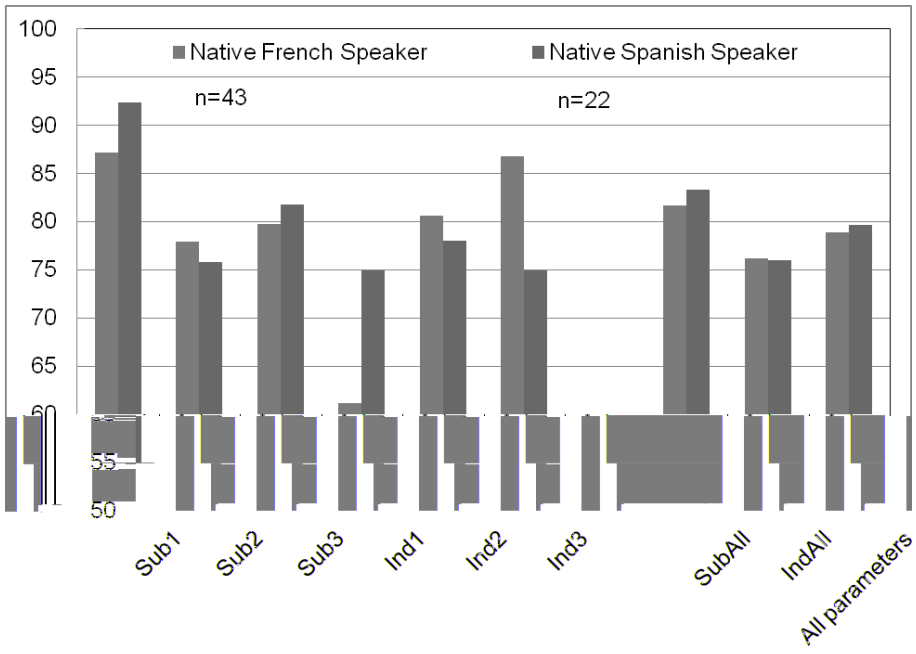

Figure 1: Mean Scores for French and Spanish Native Speakers: Language Spoken.

Table 3: ANOVA for French and Spanish Native Speakers: Language Spoken.

Mood Category	df	F	Significance
Sub1[1]	1	1.007	.319
	63		
Sub2[2]	1	.140	.710
	63		
Sub3[3]	1	.155	.695
	63		
Ind1[4]	1	4.140	.046
	63		
Ind2[5]	1	.169	.682
	63		
Ind3[6]	1	3.587	.063
	63		
SubAll[7]	1	.269	.606
	63		
IndAll[8]	1	.002	.963
	63		
All parameters	1	.084	.772
	388		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;

[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.2 French Native Speakers

5.2.1 French Native Speakers: No Demographic Divisions

Table 4 shows the ANOVA test results for all of the parameters for French NSs and Table 5 presents the corresponding Duncan test results. Not only are we able to see that French NSs interpret all of the parameters in a significantly different way, we are able to sort them into three different groups. IND1 belongs to the lowest subgroup and therefore has the interpretation furthest from the norm, meaning that an indefinite interpretation is more likely to be activated by strong intensional verbs regardless of the mood of the verb. SUB2 belongs to the middle group, indicating that that the mean for SUB2 is significantly higher than that of IND1. Since a significant difference can only be deemed to exist when two means belong to different subgroups, the fact that SUB3 and IND2 straddle the line between the middle and the highest group means that although the IND1 mean can be considered significantly lower than them, the SUB2 mean cannot. However, given that the means for IND3 and SUB1 belong solely to the highest group which elicits the most normative interpretations, we can state with certainty that the SUB2 mean is significantly lower than them. Finally, despite being able to assert with confidence that the IND3 and SUB1 means are significantly higher than the SUB2 and IND1 means, we are unable to arrive at similar conclusions for the SUB3 and IND2 means since these means fall between both the middle and highest groups. By examining the significance values at the bottom of each subgroup, it is clear that these subgroups lack homogeneity because *p* is not greater than .995. As such, it comes as no surprise that the SUB3 and IND2 means share characteristics with more than one subgroup.

Table 4: ANOVA for French Native Speakers: No Demographic Divisions.

Mood Category	df	F	Significance
All Parameters	5	7.531	.000
	252		

Table 5: Duncan Test for French Native Speakers: No Demographic Divisions: All Parameters.

			Subgroups		
Mood Category	**Type of Speaker**	**N**	**1**	**2**	**3**
Ind1[4]	**Native French**	43	61.2		
Sub2[2]		43		77.9	
Sub3[3]		43		79.8	79.8
Ind2[5]		43		80.6	80.6
Ind3[6]		43			86.8
Sub1[1]		43			87.2
	Significance		1.000	.604	.173

1=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
2=subordinate clauses introduced by a negated main clause that requires a subjunctive;
3= interrogative sentences with a subordinate clause that requires a subjunctive;
4=subordinate clauses introduced by a strong intensional verb that requires an indicative;
5=subordinate clauses introduced by a negated main clause that requires an indicative;
6= interrogative sentences with a subordinate clause that requires an indicative.

5.2.2 French Native Speakers: Age

Figure 2 depicts the mean scores for French NSs according to age (see Table 90 in Appendix J for precise values) and Table 6 presents the corresponding ANOVA results. It is evident that all age groups interpret SUB1 as the norm dictates, their results being significantly the same. Although their results for IND1 are significantly equal, the explanation is different: they are deviating from the norm. Overall, it appears that the three groups interpret the indicative in a significantly similar fashion because the INDALL significance value is so high, but it is good that we examined each type of

indicative separately so that we can see that this similarity is just a case of high means in one context canceling out low means in another one.

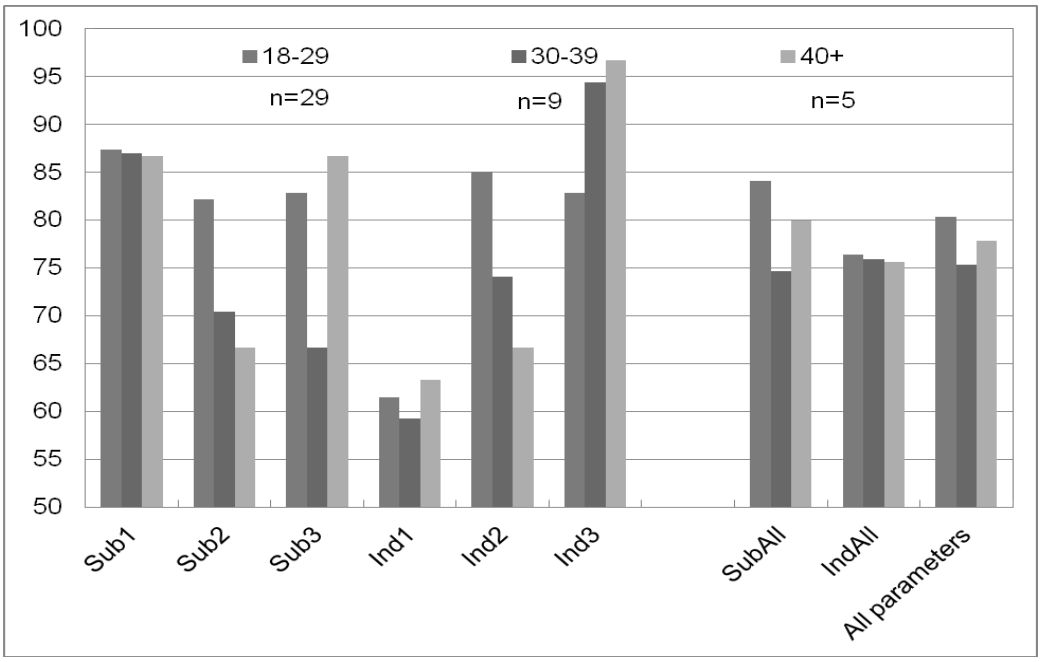

Figure 2: Mean Scores for French Native Speakers: Age.

Table 6: ANOVA for French Native Speakers: Age.

Mood Category	df	F	Significance
Sub1[1]	2	.003	.997
	40		
Sub2[2]	2	1.517	.232
	40		
Sub3[3]	2	2.636	.084
	40		
Ind1[4]	2	.037	.964
	40		
Ind2[5]	2	1.906	.162
	40		
Ind3[6]	2	1.853	.170
	40		
SubAll[7]	2	2.284	.115
	40		
IndAll[8]	2	.007	.993
	40		
All parameters	2	.917	.831
	255		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

By examining the Duncan results in Table 7, we see that the 30-39-year-olds perform less normatively than the other age groups in regards to SUB3 because their scores have been placed in a lower subgroup, which contradicts our hypothesis that the older a speaker is, the more normative his or her language use will be. As a reminder, in Section 4.3 we saw that the Duncan test detects significantly different means and places them into separate subgroups; this significance value is never shown because different subgroups are only created if a significant difference exists. For example, since the means for 30-39-year-olds and 18-29-year-olds belong to different subgroups, we know that there is a significant difference between them. We are equally sure of a significant difference between the means of the 30-39-year-olds and the 40+ group due to their placement into separate subgroups. However, classification as members of the same subgroup does not necessarily mean that two groups are significantly similar; it only means that they are not significantly different. In order to determine whether or not members of the same subgroup are significantly similar, you must consult the significance values in the Duncan test chart. For instance, in Table 7 we notice that the significance value (*p*) for subgroup 2 is not greater than .950 and therefore the 18-29-year-olds and the 40+ groups do not have significantly similar means even though both of their means are significantly higher than those of the 30-39-year-olds.

Table 7: Duncan Test for French Native Speakers: Age: Sub3.

			Subgroups	
Mood Category	**Age Group**	**N**	**1**	**2**
Sub3[3]	**30-39**	9	66.7	
	18-29	29		82.8
	40+	5		86.7
	Significance		1.000	.681

3= interrogative sentences with a subordinate clause that requires a subjunctive.

5.2.3 French Native Speakers: Highest Level of Studies

Figure 3 displays the mean scores for the NSs of French according to their highest level of studies (see Table 91 in Appendix J for precise values) and the corresponding ANOVA results are shown in Table 8. The ANOVA only detected significant values in the case of homogeneity for SUB3 and All Parameters, but the Duncan results in Table 9 show that level of education plays a role in the way SUB2 is interpreted. The high school group, as predicted, performs less normatively than the other groups. However, given that the graduate student group could be merged with the former group or with the undergraduate group that performed the most normatively, we can see that our hypothesis is not fully supported.

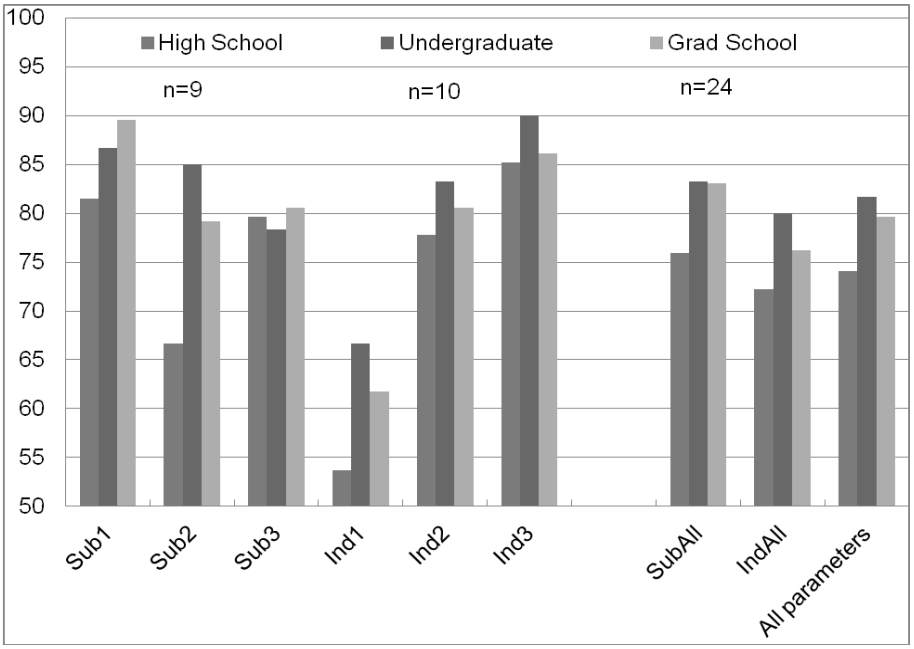

Figure 3: Mean Scores for French Native Speakers: Highest Level of Studies.

Table 8: ANOVA for French Native Speakers: Highest Level of Studies.

Mood Category	df	F	Significance
Sub1[1]	2	.556	.578
	40		
Sub2[2]	2	1.522	.231
	40		
Sub3[3]	2	.040	.960
	40		
Ind1[4]	2	.520	.598
	40		
Ind2[5]	2	.133	.876
	40		
Ind3[6]	2	.158	.855
	40		
SubAll[7]	2	1.310	.281
	40		
IndAll[8]	2	.493	.615
	40		
All parameters	2	1.560	.212
	255		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

Table 9: Duncan Test for French Native Speakers: Highest Level of Studies: Sub2.

			Subgroups	
Mood Category	**Level of Studies**	**N**	**1**	**2**
Sub2[2]	**High School**	9	66.7	
	Graduate School	24	79.2	79.2
	Undergraduate	10		85.0
	Significance		.202	.548

[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive.

If we look at Table 10 which displays the Duncan results for All Parameters, our hypothesis finds more support because the graduate students belong to a higher subgroup than the high school students, and the undergraduate students obtained scores that fall in the middle of the three groups.

Table 10: Duncan Test for French Native Speakers: Highest Level of Studies: All Parameters.

			Subgroups	
Mood Category	**Level of Studies**	**N**	**1**	**2**
All	**High school**	9	74.1	
Parameters	**Undergraduate**	10	79.6	79.6
	Grad School	24		81.7
	Significance		.168	.613

5.2.4 French Native Speakers: Occupation

Figure 4 shows the mean scores of French NSs according to occupation (see Table 92 in Appendix J for precise values), and Table 11 provides the corresponding ANOVA results. Significant differences arose where INDALL was concerned, and also in the case of IND3 in particular. As for SUB2, both groups had significantly similar performances.

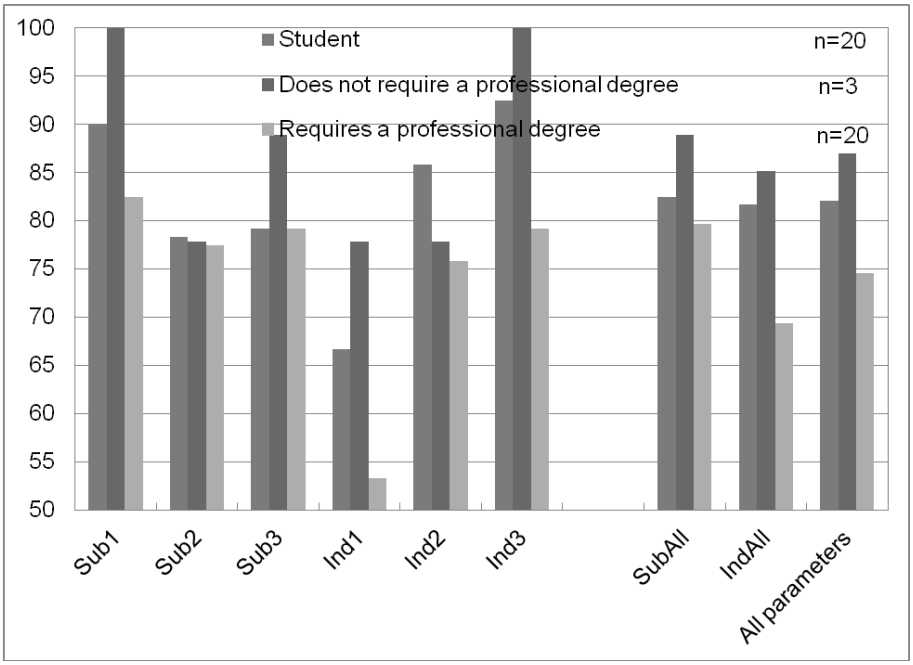

Figure 4: Mean Scores for French Native Speakers: Occupation.

Table 11: ANOVA for French Native Speakers: Occupation.

Mood Category	df	F	Significance
Sub1[1]	2	1.460	.244
	40		
Sub2[2]	2	.006	.994
	40		
Sub3[3]	2	.306	.738
	40		
Ind1[4]	2	1.809	.177
	40		
Ind2[5]	2	.970	.388
	40		
Ind3[6]	2	3.077	.057
	40		
SubAll[7]	2	.843	.438
	40		
IndAll[8]	2	3.443	.042
	40		
All parameters	2	4.120	.017
	255		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;

[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

Tables 12-14 provide the Duncan test divisions according to occupation. Contrary to our hypothesis that having an occupation that requires a professional degree translates into more normative language use, we find that speakers fitting this description performed significantly further from the norm than those whose occupation does not require a professional degree concerning INDALL, IND3, and All Parameters. However, if one compares the size of each group, one might wonder if the non-degree group made fewer errors since much fewer participants belonged to it.

Table 12: Duncan Test for French Native Speakers: Occupation: IndAll.

			Subgroups	
Mood Category	**Occupation**	**N**	**1**	**2**
IndAll[8]	**Requires a professional degree**	20	69.4	
	Student	20	81.7	81.7
	Does not require a professional degree	3		85.2
	Significance		.162	.684

[8]=all sentences with subordinate clauses requiring an indicative.

Table 13: Duncan Test for French Native Speakers: Occupation: Ind3.

			Subgroups	
Mood Category	**Occupation**	**N**	**1**	**2**
Ind3[6]	**Requires a professional degree**	20	79.2	
	Student	20	92.5	92.5
	Does not require a professional degree	3		100.0
	Significance		.210	.478

[6]= interrogative sentences with a subordinate clause that requires an indicative.

Table 14: Duncan Test for French Native Speakers: Occupation: All Parameters.

			Subgroups	
Mood Category	**Occupation**	**N**	**1**	**2**
All parameters	**Requires a professional degree**	20	74.6	
	Student	20	82.1	82.1
	Does not require a professional degree	3		87.0
	Significance		.151	.343

5.2.5 French Native Speakers: Place of Residence from Ages 8-18.

In Figure 5, we find the mean scores obtained by NSs from various origins (see Table 93 in Appendix J for precise values). Even though the ANOVA results displayed in Table 15 do not convey any significant differences between countries of origin, the post-hoc tests reveal interesting divisions in Tables 15-20.

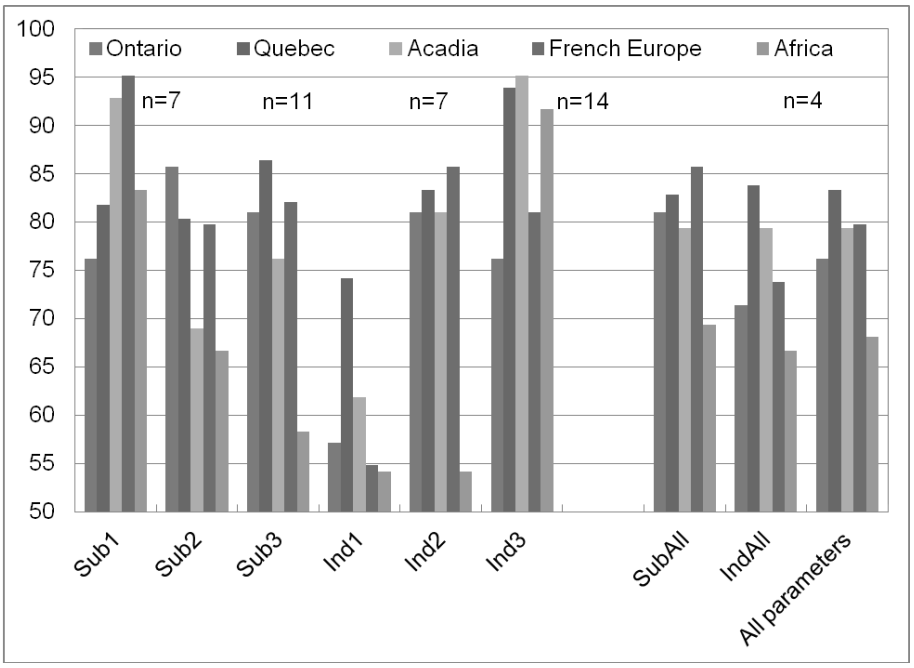

Figure 5: Mean Scores for French Native Speakers: Place of Residence from Ages 8-18.

Table 16 places speakers from Ontario and French-speaking Europe into two distinct subgroups for SUB1, with other countries on the fence between the two. We could say that these results suggest that European dialects are more conservative vis-à-vis normative grammar use than those regions that have greater contact with other languages, but the high scores of the Acadians whose geographical situation amongst Anglophone communities mirrors that of the Ontarians calls into question that interpretation of the results.

Table 15: ANOVA for French Native Speakers: Place of Residence from Ages 8-18.

Mood Category	df	F	Significance
Sub1[1]	4	1.637	.185
	38		
Sub2[2]	4	.683	.608
	38		
Sub3[3]	4	1.576	.201
	38		
Ind1[4]	4	.897	.475
	38		
Ind2[5]	4	1.628	.187
	38		
Ind3[6]	4	1.522	.215
	38		
SubAll[7]	4	1.612	.191
	38		
IndAll[8]	4	1.176	.337
	38		
All parameters	4	1.978	.098
	253		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

Table 16: Duncan Test for French Native Speakers: Place of Residence from Ages 8-18: Sub1.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
Sub1[1]	**Ontario**	7	76.2	
	Quebec	11	81.8	81.8
	Africa	4	83.3	83.3
	Acadia	7	92.9	92.9
	French Europe	14		95.2
	Significance		.137	.230

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive.

Table 17 is devoid of ambiguity. The Africans clearly perform less normatively than all other French speakers regarding IND2. It is as though they have memorized a relationship between negation and indefinite contexts and are unable to connect negation with definite ones. Unfortunately, we did not ask in our questionnaire for participants to specify other languages that they spoke, and so we cannot examine whether or not proficiency in an African language could have been a source of negative transfer.

Table 17: Duncan Test for French Native Speakers Place of Residence from Ages 8-18: Ind2.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
Ind2[5]	**Africa**	4	54.2	
	Ontario	7		81.0
	Acadia	7		81.0
	Quebec	11		83.3
	French Europe	14		85.7
	Significance		1.000	.717

[5]=subordinate clauses introduced by a negated main clause that requires an indicative.

In Table 18, we see a similar stark contrast between the Africans and the other NSs concerning SUB3 because their lower mean scores have caused them to be placed exclusively in the subgroup which performs the least normatively. They seem to have internalized another rule, this time associating interrogative sentences with definite contexts rather than indefinite ones.

Table 18: Duncan Test for French Native Speakers: Place of Residence from Ages 8-18: Sub3.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
Sub3[3]	**Africa**	4	58.3	
	Acadia	7		76.2
	Ontario	7		81.0
	French Europe	14		82.1
	Quebec	11		86.4
	Significance		1.000	.386

[3]= interrogative sentences with a subordinate clause that requires a subjunctive.

Table 19 yields similar results for the Africans, with Acadians falling between the two groups when taking all of the subjunctive sentences into account. Seeing as the Acadians were in the top tier of the SUB1 interpretation, they obviously had more problems with SUB2 and SUB3. In agreement with our hypothesis, the speakers from the two regions where French is the dominant language performed the closest to the norm. However, the fact that the Franco-Ontarians, who are a minority in their English-dominant province, also belong to the most normative group lessens the impact of these observations.

Table 19: Duncan Test for French Native Speakers: Place of Residence from Ages 8-18: SubAll.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
SubAll[7]	**Africa**	4	69.4	
	Acadia	7	79.4	79.4
	Ontario	7		81.0
	Quebec	11		82.8
	French Europe	14		85.7
	Significance		.117	.357

[7]=all sentences with subordinate clauses requiring a subjunctive.

Table 20 shows a great deal of overlapping vis-à-vis interpretation of INDALL. The Africans are definitively in a lower subgroup than the Quebecers, but the other countries could belong to either one. The Quebecers may have performed as expected, but the French-speaking Europeans did not. The fact that they placed lower than the Acadians implies that even a lack of contact with another language cannot stave off linguistic variation.

Table 20: Duncan Test for French Native Speakers: Place of Residence from Ages 8-18: IndAll.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
IndAll[8]	**Africa**	4	66.7	
	Ontario	7	71.4	71.4
	French Europe	14	73.8	73.8
	Acadia	7	79.4	79.4
	Quebec	11		83.8
	Significance		.198	.209

[8]=all sentences with subordinate clauses requiring an indicative.

As noted in the results presented above, Table 21 places the Africans in a group apart from the majority for All Parameters. Only the Ontarians hesitate between groups when considering all of the parameters at once, with the Quebecers, French Europeans, and Acadians performing the most normatively.

Table 21: Duncan Test for French Native Speakers: Place of Residence from Ages 8-18: All Parameters.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
All parameters	**Africa**	4	68.1	
	Ontario	7	76.2	76.2
	Acadia	7		79.4
	French Europe	14		79.8
	Quebec	11		83.3
	Significance		.115	.210

5.3 Spanish Native Speakers

5.3.1 Spanish Native Speakers: No Demographic Divisions

Table 22 shows the ANOVA test results for All Parameters for Spanish NSs and Table 23 presents the corresponding Duncan test results. We can see that the difference between all of the parameters borders on being significant, with SUB1 clearly being interpreted

more normatively than all of the other parameters. The low significance value for Subgroup 2 means that SUB1 and SUB3 cannot be looked at as having significantly homogenous behaviour, and so SUB3 occupies the next position, even though it is not completely detached from the lower subgroup. Our research questions regarding frequency and complexity seem to have an answer when the subjunctive is involved, even if it cannot be validated for the indicative mood: subordinate clauses introduced by a strong intensional verb that requires a subjunctive occur more frequently and are less complex than interrogative sentences with a subordinate clause that requires a subjunctive, which in turn occur more frequently and are less complex than subordinate clauses introduced by a negated main clause that requires a subjunctive. As for our markedness hypothesis which postulated that the more-marked subjunctive would be interpreted less normatively than the unmarked indicative, support cannot be found seeing as IND1, IND2, and IND3 are all part of the subgroup that performs less normatively.

Table 22: ANOVA for Spanish Native Speakers: No Demographic Divisions.

Mood Category	df	F	Significance
All parameters	5	2.017	.081
	126		

Table 23: Duncan Test for Spanish Native Speakers: No Demographic Divisions: All Parameters.

			Subgroup	
Mood Category	**Type of Speaker**	**N**	**1**	**2**
Ind1[4]	**Native Spanish**	22	75.0	
Ind3[6]		22	75.0	
Sub2[2]		22	75.8	
Ind2[5]		22	78.0	
Sub3[3]		22	81.8	81.8
Sub1[1]		22		92.4
	Significance		.377	.118

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative.

5.3.2 Spanish Native Speakers: Sex

Figure 6 shows the mean score for Spanish NSs of opposing sexes (see Table 95 in Appendix J for precise values), and Table 24 attests to the significant differences that arise amongst their mood interpretation of All Parameters.

Their IND1 interpretations prove to be homogeneous, but their INDALL scores teeter on being significantly different, IND3 showing a significant discrepancy. Males and females scored equally on IND1, but males deviated more from the norm in IND2 and IND3, just as our hypothesis predicted. However, given that no significant differences come to light in our analysis of the male and female French speakers, this trend seems to be specific to Spanish.

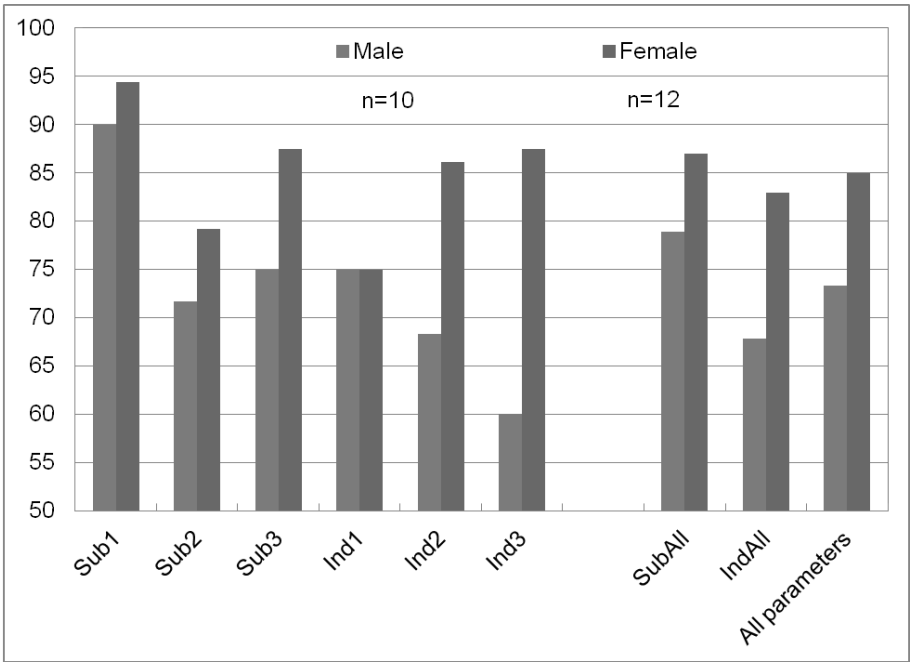

Figure 6: Mean Scores for Spanish Native Speakers: Sex.

Table 24: ANOVA for Spanish Native Speakers: Sex.

Mood Category	df	F	Significance
Sub1[1]	1	.250	.623
	20		
Sub2[2]	1	.988	.332
	20		
Sub3[3]	1	3.664	.070
	20		
Ind1[4]	1	.000	1.000
	20		
Ind2[5]	1	2.785	.111
	20		
Ind3[6]	1	5.864	.025
	20		
SubAll[7]	1	2.295	.145
	20		
IndAll[8]	1	3.825	.065
	20		
All parameters	1	9.043	.003
	130		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.3.3 Spanish Native Speakers: Place of Residence from Ages 8-18

Unlike the French NSs, no significant differences were detected between the results of the participants belonging to different age groups, having completed different levels of studies, or practicing different professions (see Tables 97, 99, and 101 in Appendix J), which suggests that the relationships between linguistic and social factors in these cases are specific to French.

Place of residence from ages 8-18, however, did play a significant role in mood interpretation. The mean scores of Spanish NSs are depicted in Figure 7 (see Table 102

in Appendix J for precise values), and the corresponding significance values are given in Table 25. Significant differences are visible in subjunctive and indicative contexts, SUB1, SUB2, and IND2 encompassing the most variation. To identify the commonalities and disparities between dialects, various Duncan tests were conducted and presented in Tables 25-33.

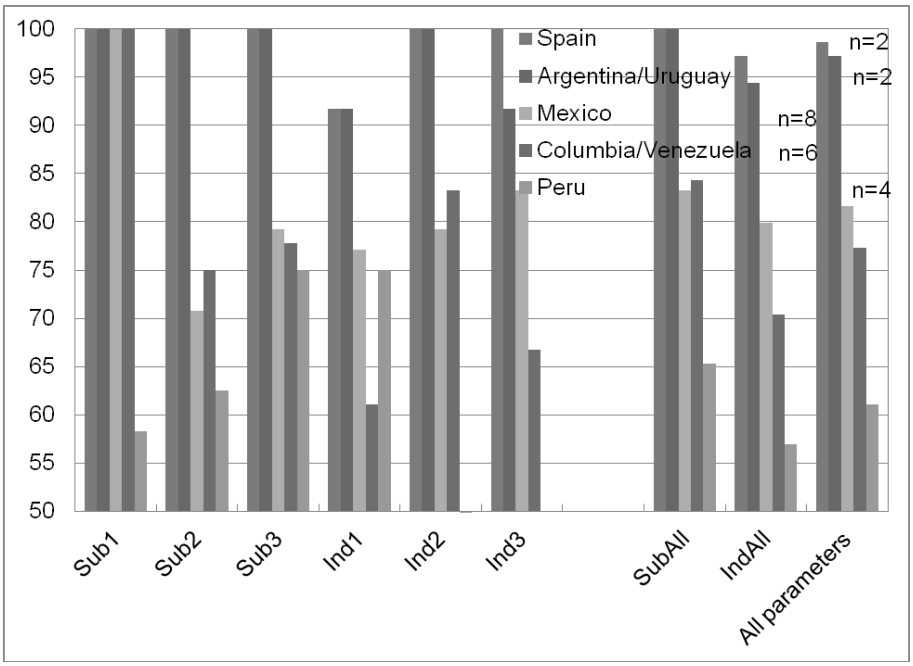

Figure 7: Mean Scores for Spanish Native Speakers: Place of Residence from Ages 8-18.

In Table 26 we see three distinct subgroups for All Parameters. The Peruvians belong to the lowest one, the Columbians/Venezuelans and the Mexicans belong to the middle one, and the Argentines/Uruguayans and the Spaniards belong to the highest one. Given these results, it appears as though dialectal differences exist in regards to mood interpretation. Nevertheless, we cannot ignore the fact that our sample size was quite small and thus it is possible that these differences could be between individuals and not dialects.

Table 25: ANOVA for Spanish Native Speakers: Place of Residence from Ages 8-18.

Mood Category	df	F	Significance
Sub1[1]	4	7.903	.001
	17		
Sub2[2]	4	4.234	.015
	17		
Sub3[3]	4	1.839	.168
	17		
Ind1[4]	4	1.295	.311
	17		
Ind2[5]	4	3.388	.033
	17		
Ind3[6]	4	1.737	.188
	17		
SubAll[7]	4	9.366	.000
	17		
IndAll[8]	4	3.231	.038
	17		
All parameters	4	13.301	.000
	127		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

Table 26: Duncan Test for Spanish Native Speakers: Place of Residence from Ages 8-18: All Parameters.

			Subgroups		
Mood Category	**Residence 8-18**	**N**	**1**	**2**	**3**
All parameters	**Peru**	4	61.1		
	Columbia/Venezuela	8		77.3	
	Mexico	6		81.6	
	Argentina/Uruguay	2			97.2
	Spain	2			98.6
	Significance		1.000	.508	.830

Table 27 contains very striking information. Speakers from every Spanish-speaking country in this study, with the exception of the Peruvians, obtained perfect scores on SUB1. The Peruvians belong to a group of their own, having obtained very low scores in these contexts. Unfortunately, we did not ask the NSs to specify additional languages that they speak, and so cannot make any educated guesses as to whether or not contact with Quechua, another official language of Peru, could have influenced this particular dialect of Spanish.

Table 27: Duncan Test for Spanish Native Speakers: Place of Residence from Ages 8-18: Sub1.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
Sub1[1]	**Peru**	4	58.3	
	Spain	2		100.0
	Argentina/Uruguay	2		100.0
	Mexico	8		100.0
	Columbia/Venezuela	6		100.0
	Significance		1.000	1.000

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive.

Table 28 shows that variation exists not only in Peru but also in Mexico and Columbia/Venezuela in regards to SUB2. The Spaniards and Argentines/Uruguayans achieved perfect scores in these contexts, but there is a clear distinction between the interpretation of SUB2 in these dialects and the others.

Table 28: Duncan Test for Spanish Native Speakers: Place of Residence from Ages 8-18: Sub2.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
Sub2[2]	**Peru**	4	62.5	
	Mexico	8	70.8	
	Columbia/Venezuela	6	75.0	
	Spain	2		100.0
	Argentina/Uruguay	2		100.0
	Significance		.292	1.000

[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive.

In Table 29, we observe that the Peruvians have again been disassociated with the participants from other Spanish-speaking countries concerning IND2.

Table 29: Duncan Test for Spanish Native Speakers: Place of Residence from Ages 8-18: Ind2.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
Ind2[5]	**Peru**	4	45.8	
	Mexico	8		79.2
	Columbia/Venezuela	6		83.3
	Spain	2		100.0
	Argentina/Uruguay	2		100.0
	Significance		1.000	.272

[5]=subordinate clauses introduced by a strong intensional verb that requires an indicative.

The results in Tables 30 and 31 show that the interpretations of SUB3 and IND3 on the part of the Peruvians differ significantly from those of the Spaniards and Argentines/Uruguayans, but the Columbians/Venezuelans and the Mexicans show a pattern similar to both groups.

Table 30: Duncan Test for Spanish Native Speakers: Place of Residence from Ages 8-18: Sub3.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
Sub3[3]	**Peru**	4	75.0	
	Columbia/Venezuela	6	77.8	77.8
	Mexico	8	79.2	79.2
	Spain	2		100.0
	Argentina/Uruguay	2		100.0
	Significance		.743	.100

[3]= interrogative sentences with a subordinate clause that requires a subjunctive.

Table 31: Duncan Test for Spanish Native Speakers: Place of Residence from Ages 8-18: Ind3.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
Ind3[6]	**Peru**	4	50.0	
	Columbia/Venezuela	6	66.7	66.7
	Mexico	8	83.3	83.3
	Argentina/Uruguay	2		91.7
	Spain	2		100.0
	Significance		.162	.174

[6]= interrogative sentences with a subordinate clause that requires an indicative.

In Tables 32, we see three different dialectal groupings in regards to the subjunctive in general and all of the parameters combined: Peru is in a group on its own, Mexico and Columbia/Venezuela share similarities, and Spain and Argentina/Uruguay form a distinct group with high scores as always. Spain's unwavering position as the country whose mood alternation is the most normative suggests that Europeans put more emphasis on proper usage than others. However, we need to bear in mind that this result is based on a small sample size. As Argentina/Uruguay also obtained very high scores in each context, we might imagine that these dialects alternate between moods more like the Europeans as opposed to the Latin Americans, despite their geographical location.

Table 32: Duncan Test for Spanish Native Speakers: Place of Residence from Ages 8-18: SubAll.

			Subgroups		
Mood Category	**Residence 8-18**	**N**	**1**	**2**	**3**
SubAll[7]	**Peru**	4	65.3		
	Mexico	8		83.3	
	Columbia/Venezuela	6		84.3	
	Spain	2			100.0
	Argentina/Uruguay	2			100.0
	Significance		1.000	.885	1.000

[7]=all sentences with subordinate clauses requiring a subjunctive.

The dialectal subgroups for the indicative (see Table 33) differ from those of the subjunctive, Peru and Columbia/Venezuela belonging to the same group, Spain and Argentina/Uruguay clearly distinguishing themselves from the aforementioned countries, and Mexico sharing characteristics with all.

Table 33: Duncan Test for Spanish Native Speakers: Place of Residence from Ages 8-18: IndAll.

			Subgroups	
Mood Category	**Residence 8-18**	**N**	**1**	**2**
IndAll[8]	**Peru**	4	56.9	
	Columbia/Venezuela	6	70.4	
	Mexico	8	79.9	79.9
	Argentina/Uruguay	2		94.4
	Spain	2		97.2
	Significance		.103	.210

[8]=all sentences with subordinate clauses requiring an indicative.

5.4 Students versus Native Speakers

As mentioned above, NSs exhibit variation in regards to interpretation of mood alternation, so it is best to compare the NS and NNS results before determining whether or not students are capable of near-native attainment of mood alternation in French and Spanish.

5.4.1 French Native Speakers and French Students

5.4.1.1 French Native Speakers and French Students: Type of Speaker

Figure 8 compares the mean scores of the French NSs and the students of French (see Table 151 in Appendix J for precise values) and Table 34 presents the corresponding ANOVA results. Worthy of note is the fact that there are no significant differences between the way that NSs interpret mood and the way that NNSs interpret mood. Moreover, the high significance values for SUB1, SUB2, SUB3, and SUBALL imply that there is more homogeneity between the groups than heterogeneity. Contrary to our hypothesis, although the NSs had higher average scores in IND2 and IND3, they were the ones who obtained lower scores in regards to IND1, where a near-significant difference was detected between the NSs and the NNSs. Since the NSs performed more normatively in contexts containing its subjunctive counterpart, SUB1, it is possible that they are more inclined to interpret subordinate clauses introduced by strong intensional verbs as being indefinite than as definite. The students' fairly uniform performance across all of the indicative contexts, on the other hand, indicates that they are more prone to follow rules as opposed to native-like intuition in the case of IND1.

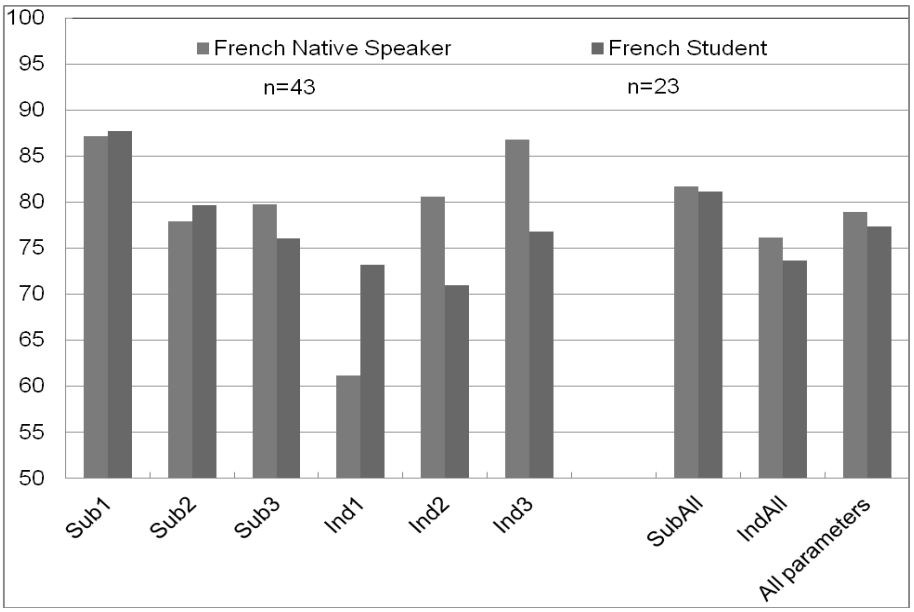

Figure 8: Mean Scores for French Native Speakers and French Students: Type of Speaker.

Table 34: ANOVA for French Native Speakers and French Students: Type of Speaker.

Mood Category	df	F	Significance
Sub1[1]	1	.009	.925
	64		
Sub2[2]	1	.081	.777
	64		
Sub3[3]	1	.484	.489
	64		
Ind1[4]	1	3.223	.077
	64		
Ind2[5]	1	1.871	.176
	64		
Ind3[6]	1	2.360	.129
	64		
SubAll[7]	1	.017	.897
	64		
IndAll[8]	1	.278	.600
	64		
All parameters	1	.337	.562
	394		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.4.1.2 French Students: Languages Spoken

We divided the students of French into two subgroups: those with only French as an L2 and those with French as an L2 and Spanish as an L3; Figure 9 compares their mean scores (see Table 152 in Appendix J for precise values). Despite the lack of significant values presented in Table 35 with the exception of All Parameters, the students who had Spanish as an L3 consistently obtained higher scores in every context. Perhaps if larger groups were to be used in the future, we could state with more assurance that our hypothesis has merit and that the extra exposure to the subjunctive in an L3 promotes the acquisition of the morphosyntax-pragmatics interface phenomenon in question.

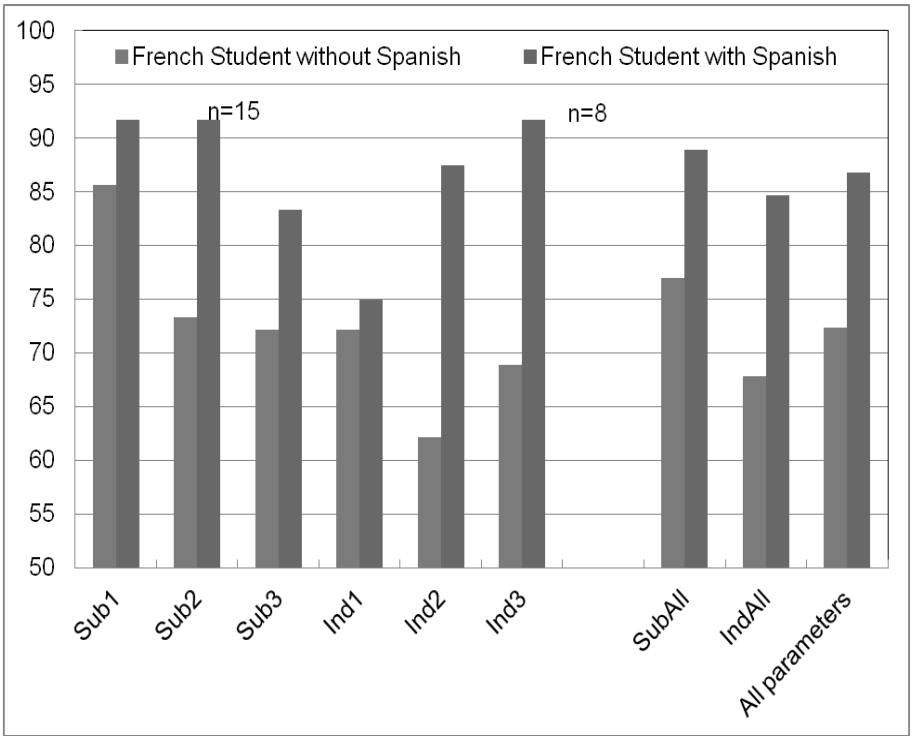

Figure 9: Mean Scores for French Students: Languages Spoken.

Table 35: ANOVA for French Students: Languages Spoken.

Mood Category	df	F	Significance
Sub1[1]	1	.531	.474
	21		
Sub2[2]	1	2.785	.110
	21		
Sub3[3]	1	1.378	.254
	21		
Ind1[4]	1	.082	.778
	21		
Ind2[5]	1	3.213	.087
	21		
Ind3[6]	1	2.775	.111
	21		
SubAll[7]	1	2.190	.154
	21		
IndAll[8]	1	3.445	.078
	21		
All parameters	1	9.860	.002
	136		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;

[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.4.1.3 French Native Speakers and French Students with Spanish: Type of Speaker

Interestingly, the L2 French learners with L3 Spanish performed more normatively than the French NSs in each context as we can see in Figure 10 (see Table 153 in Appendix J for precise values). The corresponding ANOVA results in Table 36 may not show significant similarities between the two groups, but they do not show that there are any significant differences between them either. It appears that positive transfer has taken place from L3 Spanish to L2 French, helping to ingrain normative grammar rules into these students, but a larger sample size is needed to attain a higher level of certainty.

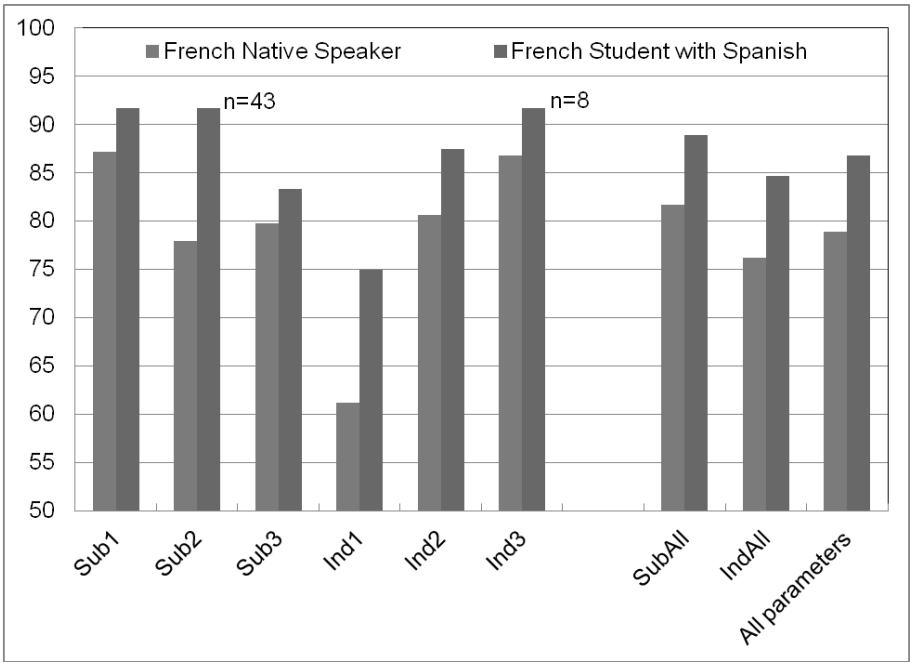

Figure 10: Mean Scores for French Native Speakers and French Students with Spanish: Type of Speaker.

Table 36: ANOVA for French Native Speakers and French Students with Spanish: Type of Speaker.

Mood Category	df	F	Significance
Sub1[1]	1	.371	.545
	49		
Sub2[2]	1	2.265	.139
	49		
Sub3[3]	1	.204	.654
	49		
Ind1[4]	1	1.740	.193
	49		
Ind2[5]	1	.591	.446
	49		
Ind3[6]	1	.404	.528
	49		
SubAll[7]	1	2.215	.143
	49		
IndAll[8]	1	1.848	.180
	49		
All parameters	1	4.536	.034
	304		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.4.1.4 French Native Speakers and French Students without Spanish: Type of Speaker

Figure 11 (see Table 154 in Appendix J for precise values) and Table 37 yield more interesting results in the case of the NSs compared to the L2 advanced learners of French having no knowledge of Spanish: the NNS obtained significantly lower scores than the NSs in the IND2 and IND3 contexts, and for All Parameters. As the L2 French with L3 Spanish learners never showed significantly lower scores than the NSs, we might infer that our results point to multilingualism being more effective than bilingualism when it comes to interpretation of mood in typologically similar L2s and L3s such as French and Spanish.

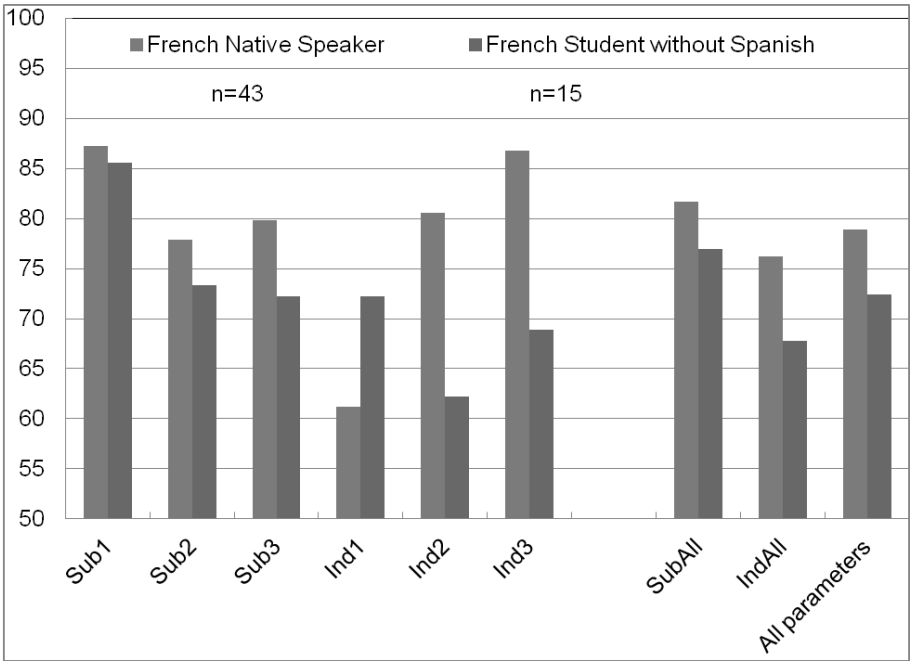

Figure 11: Mean Scores for French Native Speakers and French Students without Spanish: Type of Speaker.

Table 37: ANOVA for French Native Speakers and French Students without Spanish: Type of Speaker.

Mood Category	df	F	Significance
Sub1[1]	1	.077	.782
	56		
Sub2[2]	1	.394	.533
	56		
Sub3[3]	1	1.440	.235
	56		
Ind1[4]	1	1.948	.168
	56		
Ind2[5]	1	5.314	.025
	56		
Ind3[6]	1	5.510	.022
	56		
SubAll[7]	1	1.166	.285
	56		
IndAll[8]	1	2.213	.142
	56		
All parameters	1	4.511	.034
	346		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;

[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.4.2 Spanish Native Speakers and Spanish Students

5.4.2.1 Spanish Native Speakers and Spanish Students: Type of Speaker

Figure 12 compares the mean scores of the Spanish NSs and students of Spanish (see Table 155 in Appendix J for precise values) and Table 38 displays the corresponding significance values. First of all, it is important to notice the high significance value for INDALL which borders on demonstrating significant similarities between the ways in which the two groups interpret the indicative. The low value for SUBALL, on the other hand, points to disparities. By looking more closely at the mean scores for both groups, we can see that although both groups have significantly similar interpretations of SUB3, the NNSs scored significantly higher than the NSs in SUB2 and slightly higher in SUB1. When it comes to the subjunctive, learners of Spanish appear to be sticklers for grammar more so than NSs.

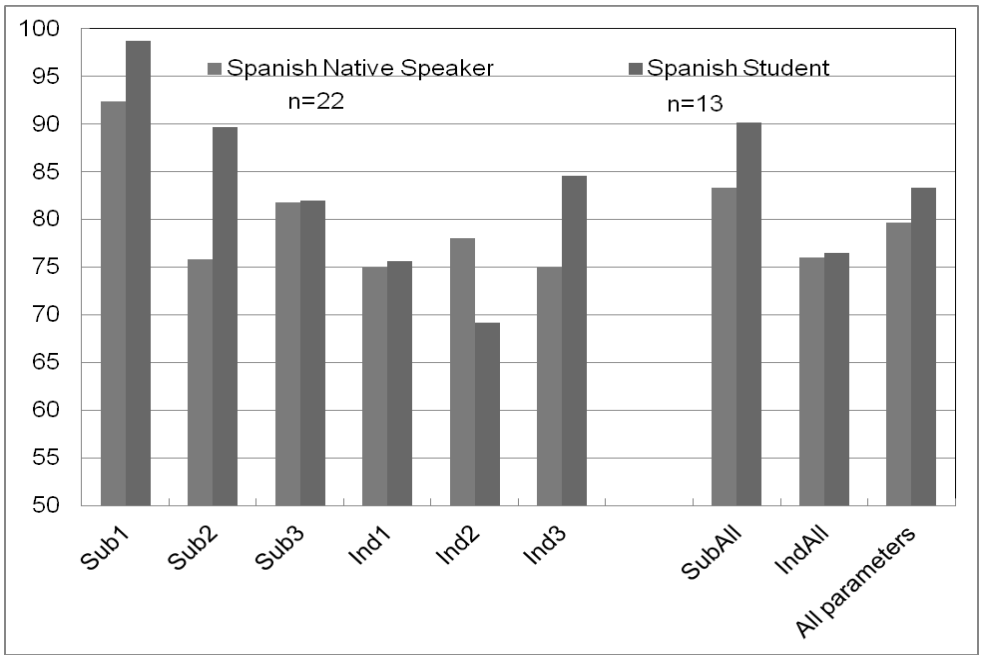

Figure 12: Mean Scores for Spanish Native Speakers and Spanish Students: Type of Speaker.

Table 38: ANOVA for Spanish Native Speakers and Spanish Students: Type of Speaker.

Mood Category	df	F	Significance
Sub1[1]	1	.188	.284
	33		
Sub2[2]	1	4.465	.042
	33		
Sub3[3]	1	.002	.968
	33		
Ind1[4]	1	.004	.948
	33		
Ind2[5]	1	.890	.352
	33		
Ind3[6]	1	1.039	.316
	33		
SubAll[7]	1	2.792	.104
	33		
IndAll[8]	1	.005	.946
	33		
All parameters	1	1.187	.277
	208		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;

[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.4.2.2 Spanish Students: Languages Spoken

We divided the students of Spanish into two groups: those with only Spanish as an L2 and those with French as an L2 and Spanish as an L3; Figure 13 compares these means (see Table 156 in Appendix J for precise values) and Table 39 provides the corresponding ANOVA results. In a manner consistent with our hypothesis, L3 Spanish learners performed significantly better than L2 Spanish learners when All Parameters were taken into account, and for IND3, INDALL, and SUB2 in particular. Such results suggest that having a solid base in French before studying Spanish helps these learners to achieve greater success in regards to the interface phenomenon under scrutiny.

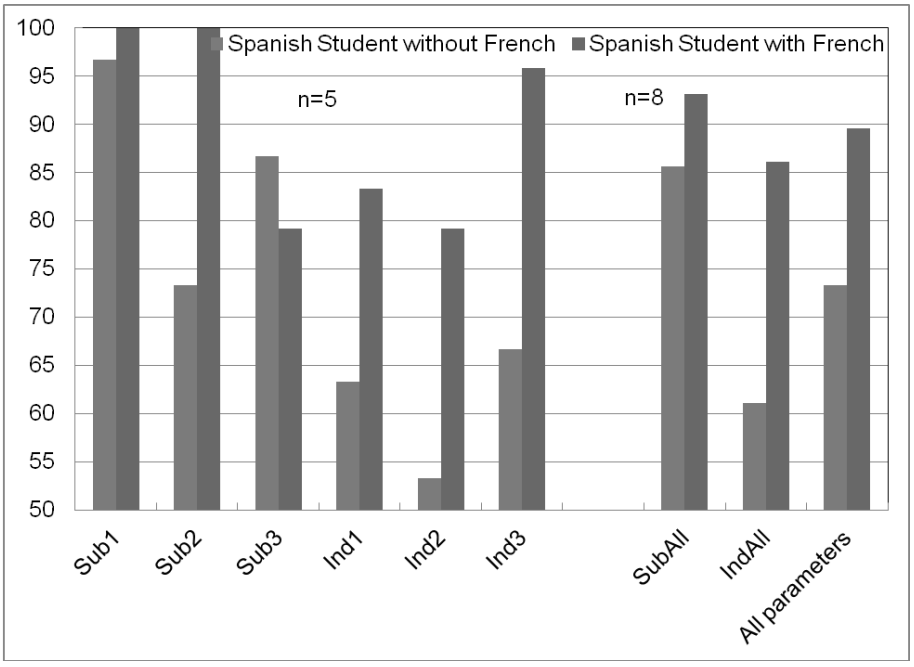

Figure 13: Mean Scores for Spanish Students: Languages Spoken.

Table 39: ANOVA for Spanish Students: Languages Spoken.

Mood Category	df	F	Significance
Sub1[1]	1 11	1.692	.220
Sub2[2]	1 11	7.736	.018
Sub3[3]	1 11	.557	.471
Ind1[4]	1 11	.923	.357
Ind2[5]	1 11	3.092	.106
Ind3[6]	1 11	9.013	.012
SubAll[7]	1 11	2.310	.157
IndAll[8]	1 11	5.040	.046
All parameters	1 76	8.749	.004

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.4.2.3 Spanish Native Speakers and Spanish Students with French: Type of Speaker

The mean scores for the Spanish NSs and the L3 students of Spanish in Figure 14 (see Table 157 in Appendix J for precise values) and the significance results in Table 40 bring to mind the results of the French NSs and the L2 French students with L3 Spanish because the NNSs performed more normatively than the NSs. As a matter of fact, the students performed significantly better for SUB2 and SUBALL than the NSs. It seems most likely that these high scores can be attributed to positive transfer from L2 French, but more data is needed to obtain a more definitive answer.

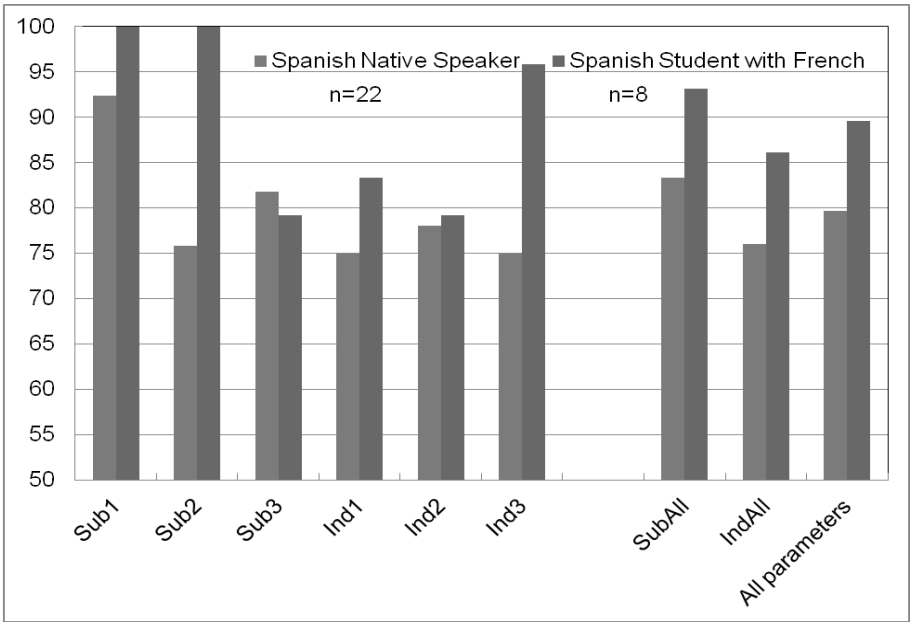

Figure 14: Mean Scores for Spanish Native Speakers and Spanish Students with French: Type of Speaker.

Table 40: ANOVA for Spanish Native Speakers and Spanish Students with French: Type of Speaker.

Mood Category	df	F	Significance
Sub1[1]	1	1.079	.308
	28		
Sub2[2]	1	14.818	.001
	28		
Sub3[3]	1	.152	.699
	28		
Ind1[4]	1	.608	.442
	28		
Ind2[5]	1	.013	.910
	28		
Ind3[6]	1	3.720	.064
	28		
SubAll[7]	1	4.140	.051
	28		
IndAll[8]	1	1.736	.198
	28		
All parameters	1	7.151	.008
	178		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;

[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.4.2.4 Spanish Native Speakers and Spanish Students without French: Type of Speaker

Figure 15 compares the mean scores of the Spanish NSs and L2 students of Spanish having no knowledge of French (see Table 158 in Appendix J for precise values) and Table 41 provides the corresponding significance values. Although the L2 Spanish students without French had lower mean scores than the NSs in INDALL, IND1, IND2, IND3, and SUB2, the differences between the two groups were not significant. Nevertheless, these results do make the higher results of the L3 Spanish students compared to the NSs stand out even more than they did before, reinforcing the idea that multilingualism could be beneficial when acquiring grammatical mood alternations.

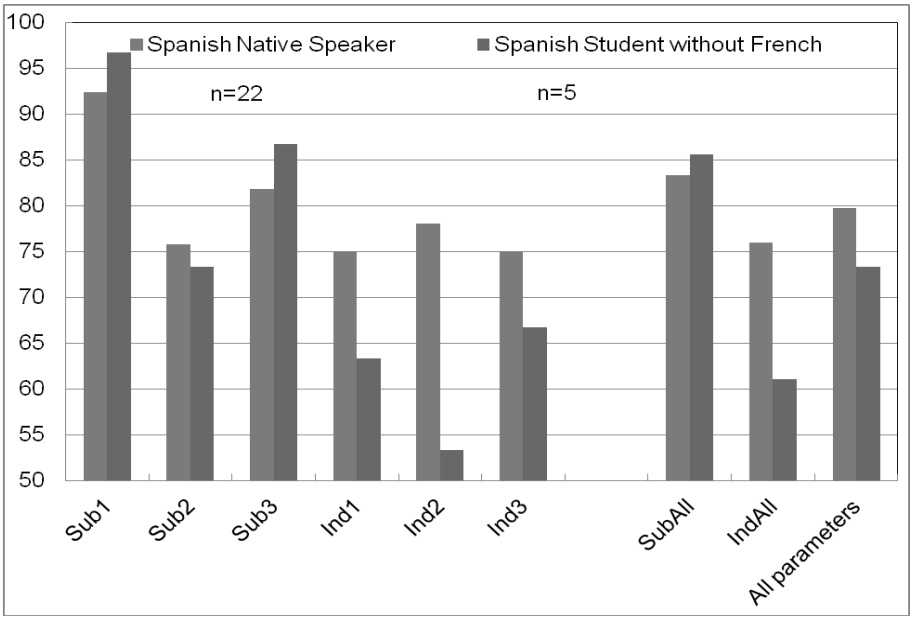

Figure 15: Mean Scores for Spanish Native Speakers and Spanish Students without French: Type of Speaker.

Table 41: ANOVA for Spanish Native Speakers and Spanish Students without French: Type of Speaker.

Mood Category	df	F	Significance
Sub1[1]	1 25	.205	.655
Sub2[2]	1 25	.062	.805
Sub3[3]	1 25	.350	.559
Ind1[4]	1 25	.886	.355
Ind2[5]	1 25	3.215	.085
Ind3[6]	1 25	.346	.561
SubAll[7]	1 25	.122	.729
IndAll[8]	1 25	2.256	.146
All parameters	1 160	1.705	.194

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.5 French and Spanish Students

5.5.1 French and Spanish Students: Language Studied

Figure 16 compares the mean scores of the students of French and Spanish (see Table 103 in Appendix J for precise values) and Table 42 gives the corresponding significance values. The students of Spanish had higher mean scores in all categories with the exception of IND2, but only their higher values in regards to SUB1 were deemed to be significant. A possible reason why the students of Spanish interpret the subjunctive more normatively than the students of French could be linked to saliency: the more salient a

variant is, the easier it is to master. In Spanish, the subjunctive morphology is always perceivably different from that of the indicative, making it easier to recognize as a distinct form than in the case of French, where the three singular persons are homophones for regular verbs from the first group.

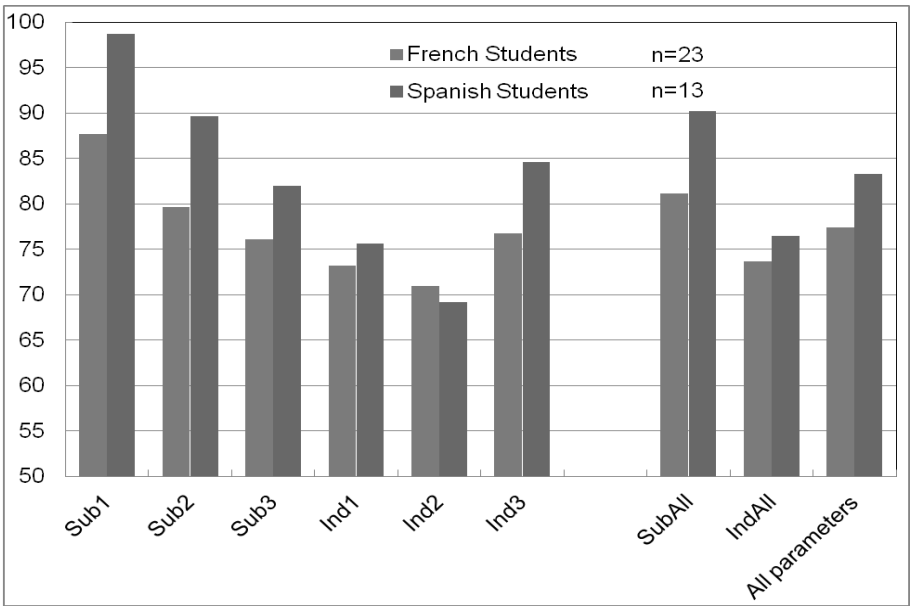

Figure 16: Mean Scores for French and Spanish Students: Language Studied.

Table 42: ANOVA for French and Spanish Students: Language Studied.

Mood Category	df	F	Significance
Sub1[1]	1	4.218	.048
	34		
Sub2[2]	1	1.402	.245
	34		
Sub3[3]	1	.715	.404
	34		
Ind1[4]	1	.065	.801
	34		
Ind2[5]	1	.026	.873
	34		
Ind3[6]	1	.593	.447
	34		
SubAll[7]	1	2.618	.115
	34		
IndAll[8]	1	.134	.716
	34		
All parameters	5	3.104	.010
	210		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.5.2 French Students

5.5.2.1 French Students: No Demographic Divisions

In order for the ANOVA to have detected a significant difference between the way in which the French students used All Parameters, there would have had to have been a significant difference between every single mean, implying six different subgroups. As the ANOVA result was not significant (see Table 105 in Appendix J), this is a case where the Duncan test was especially useful because it was able to identify the small number of means which did indeed differ significantly and divide them into two subgroups. In Table 43, we see that students of French clearly interpret IND1 and IND2 less normatively than

SUB1, whereas the way that they interpret SUB2, SUB3, and IND3 does not show a clear pattern.

Table 43: Duncan Test for French Students: No Demographic Divisions.

			Subgroups	
	Mood Category	**N**	**1**	**2**
French Students	**Ind2**[5]	23	71.0	
	Ind1[4]	23	73.2	
	Sub3[3]	23	76.1	76.1
	Ind3[6]	23	76.8	76.8
	Sub2[2]	23	79.7	79.7
	Sub1[1]	23		87.7
	Significance	23	.329	.179

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative.

5.5.2.2 French Students: Age

Figure 17 depicts the mean scores for the students of French according to age (see Table 108 in Appendix J for precise values) and Table 44 presents the corresponding significance values. We can see from the ANOVA results that the age groups have significantly different ways of interpreting mood alternation when taking all mood categories into account, but we need to look at the Duncan results shown in Tables 45-47 to make sense of these differences because even if the ANOVA does not show a significant difference between all of the groups, that does not mean that there is not one between 2 of the 3.

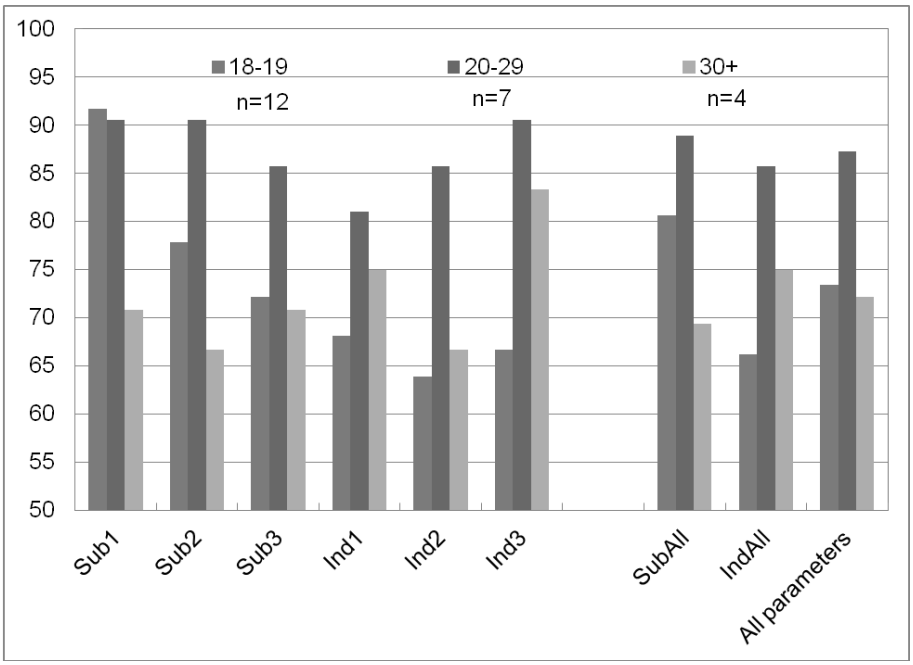

Figure 17: Mean Scores for French Students: Age.

Table 44: ANOVA for French Students: Age.

Mood Category	df	F	Significance
Sub1[1]	2	2.118	.146
	20		
Sub2[2]	2	1.143	.339
	20		
Sub3[3]	2	.986	.391
	20		
Ind1[4]	2	.778	.473
	20		
Ind2[5]	2	.959	.400
	20		
Ind3[6]	2	1.325	.288
	20		
SubAll[7]	2	1.431	.263
	20		
IndAll[8]	2	1.892	.177
	20		
All parameters	2	4.440	.014
	135		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

Table 45 shows us that students over the age of 30 perform significantly less normatively than students under the age of 30 regarding SUB1, confirming our hypothesis that performance decreases with age, perhaps for physiological reasons. However, the results in Table 46 weaken our arguments because although the 20-29-year-olds clearly belong to another subgroup when interpreting SUBALL, the 18-19-year-olds, despite their higher scores, do not perform significantly better than those over 30 years of age. In fact, regarding all of the parameters (see Table 47), the scores of the 18-19-year-olds were closer to those of the group over 30 than to those of the group in their twenties.

Table 45: Duncan Test for French Students: Age: Sub1.

			Subgroups	
Mood Category	**Age**	**N**	**1**	**2**
Sub1[1]	**30+**	4	70.8	
	20-29	7		90.5
	18-19	12		91.7
	Significance		1.000	.908

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive.

Table 46: Duncan Test for French Students: Age: SubAll.

			Subgroups	
Mood Category	**Age**	**N**	**1**	**2**
SubAll[7]	**30+**	4	69.4	
	18-19	12	80.6	80.6
	20-29	7		88.9
	Significance		.297	.432

[7]=all sentences with subordinate clauses requiring a subjunctive.

Table 47: Duncan Test for French Students: Age: All Parameters.

			Subgroups	
Mood Category	**Age**	**N**	**1**	**2**
All	**30+**	4	72.2	
parameters	**18-19**	12	73.4	
	20-29	7		87.3
	Significance		.846	1.000

5.5.2.3 French Students: Age of Initial Acquisition

Figure 18 displays the mean scores for students of French regarding their initial age of acquisition of this language (see Table 117 in Appendix J for precise values) and Table 48 gives provides the corresponding ANOVA results. Contrary to our hypothesis linked to the sensitive period, performance did not increase significantly as age of acquisition decreased. Surprisingly, those who started learning French after age 8 obtained significantly higher scores for IND1 than those who started learning it before. That being said, since these students started learning French in a school setting as opposed to a natural one, it is possible that environmental factors played a bigger role in these outcomes than did age, a point which will be addressed in further detail in the discussion.

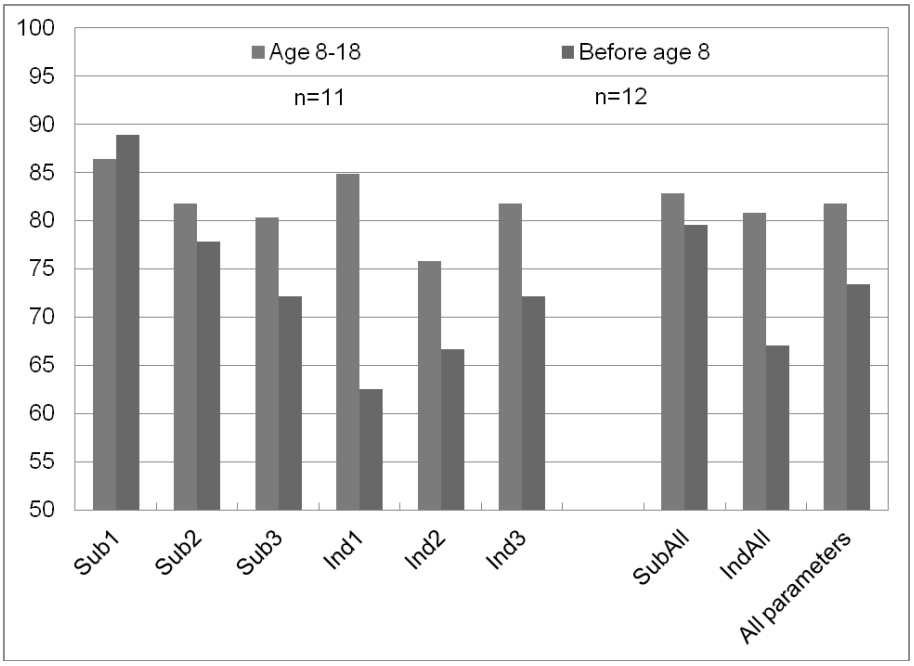

Figure 18: Mean Scores for French Students: Age of Initial Acquisition.

Table 48: ANOVA for French Students: Age of Initial Acquisition.

Mood Category	df	F	Significance
Sub1[1]	1	.098	.758
	21		
Sub2[2]	1	.132	.720
	21		
Sub3[3]	1	.780	.387
	21		
Ind1[4]	1	7.979	.010
	21		
Ind2[5]	1	.404	.532
	21		
Ind3[6]	1	.490	.492
	21		
SubAll[7]	1	.160	.693
	21		
IndAll[8]	1	2.360	.139
	21		
All parameters	1	3.565	.061
	136		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.5.2.4 French Students: Role of French at School

Figure 19 presents the mean scores for students of French according to the role French played at school (see Table 120 in Appendix J for precise values) and Table 49 gives the corresponding significance values. Although students from both French Immersion and Core French backgrounds obtained fairly similar scores for SUBALL, the students from a Core French background obtained higher (albeit not significantly higher) scores for INDALL, IND1, IND2, IND3, and SUB2. As for All Parameters, the students from a Core French background performed significantly better than those who had completed a French Immersion program, a finding which does not support our hypothesis.

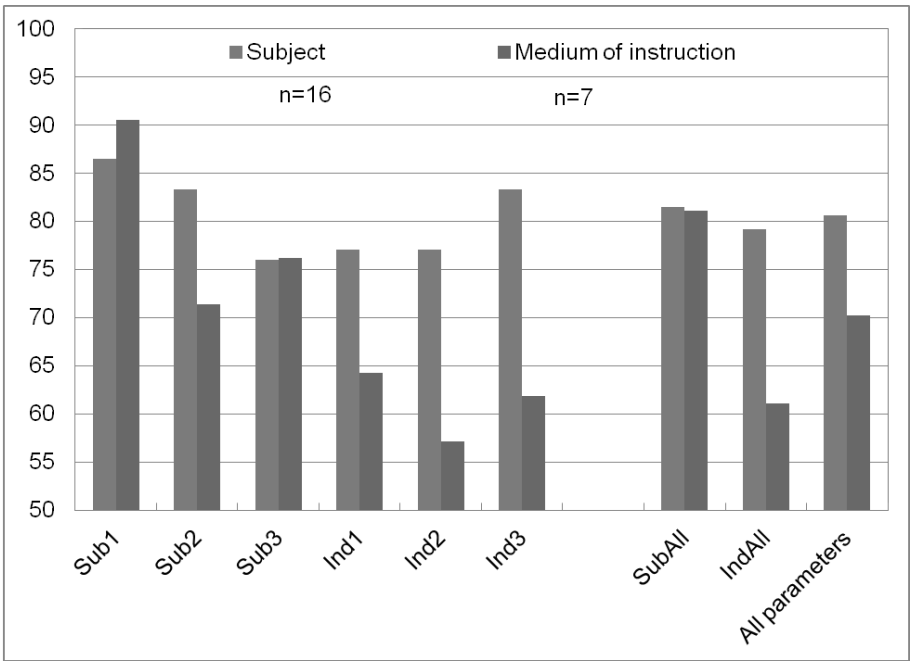

Figure 19: Mean Scores for French Students: Core versus French Immersion.

Table 49: ANOVA for French Students: Core versus French Immersion.

Mood Category	df	F	Significance
Sub1[1]	1	.211	.651
	21		
Sub2[2]	1	1.014	.325
	21		
Sub3[3]	1	.000	.988
	21		
Ind1[4]	1	1.742	.201
	21		
Ind2[5]	1	1.754	.200
	21		
Ind3[6]	1	2.241	.149
	21		
SubAll[7]	1	.088	.770
	21		
IndAll[8]	1	3.686	.069
	21		
All parameters	1	4.554	.035
	136		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;

[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.5.2.5 French Students: Length of Stay in a French-Speaking Region

Figure 20 depicts the mean scores of the French NNSs according to the length of time they have spent in a French-speaking region (see Table 121 in Appendix J for precise values) and Table 50 shows the corresponding ANOVA results. In shocking contrast to our predictions, students who had spent over a year in a French-speaking region performed significantly less normatively than those who had spent less time in a native environment. The only instance where this group obtained scores of significant similarity to those of the other groups was for IND1. As for SUB1, SUB2, SUBALL, and All Parameters, the groups exhibited significant differences which can only be fully understood by examining the corresponding Duncan results in Tables 51, 52, 55 and 56.

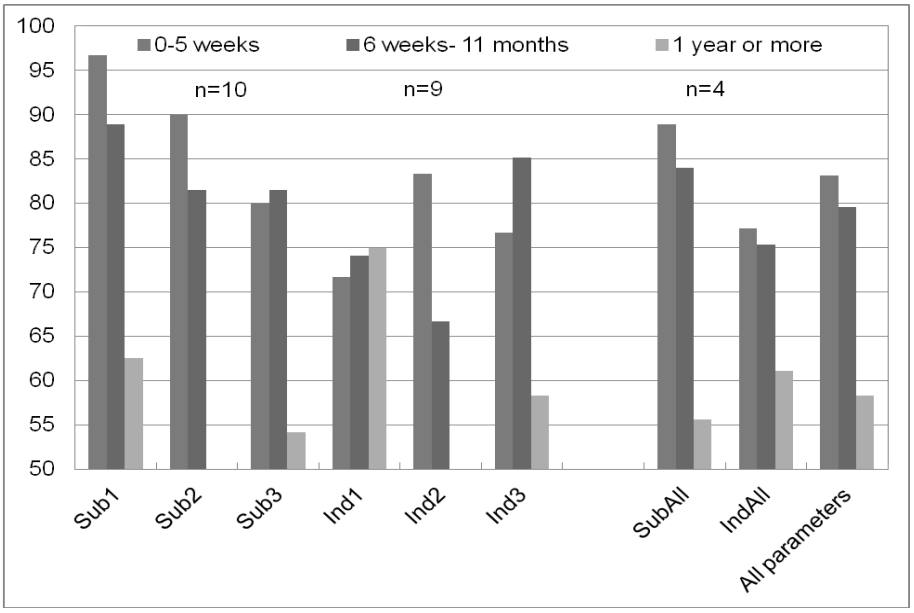

Figure 20: Mean Scores for French Students: Length of Stay in a French-Speaking Region.

Table 50: ANOVA for French Students: Length of Stay in a French-Speaking Region.

Mood Category	df	F	Significance
Sub1[1]	2	7.391	.004
	20		
Sub2[2]	2	4.458	.025
	20		
Sub3[3]	2	2.877	.080
	20		
Ind1[1]	2	.042	.959
	20		
Ind2[2]	2	1.594	.228
	20		
Ind3[3]	2	.942	.406
	20		
SubAll[7]	2	7.357	.004
	20		
IndAll[8]	2	.793	.466
	20		
All parameters	2	8.657	.000
	135		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

Additionally, even though the ANOVA did not detect a significant difference between all of the groups for IND2 and SUB3, the Duncan proved to be useful in doing so. In Tables 51, 52, and 54, we see that the group who spent a year or more abroad interpreted SUB1, SUB2, and SUB3 significantly less normatively than the other groups because the Duncan test isolated their lower scores into a subgroup apart from the rest. As for IND2 (see Table 53), only those who had spent less than six weeks in a French-speaking region belong exclusively to a higher subgroup. As for SUBALL (see Table 55) and All Parameters (see Table 56), the group who had the most experience in a native environment has the lowest subgroup to itself again.

Table 51: Duncan Test for French Students: Length of Stay in a French-Speaking Region: Sub1.

Mood Category	Length of Stay in a French-Speaking Region	N	Subgroups 1	2
Sub1[1]	**1 year or more**	4	62.5	
	6 weeks-11months	9		88.9
	0-5 weeks	10		96.7
	Significance		1.000	.363

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive.

Table 52: Duncan Test for French Students: Length of Stay in a French-Speaking Region: Sub2.

Mood Category	Length of Stay in French-Speaking Region	N	Subgroups 1	2
Sub2[2]	**1 year or more**	4	50.0	
	6 weeks-11months	9		81.48
	0-5 weeks	10		90.0
	Significance		1.000	.507

[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive.

Table 53: Duncan Test for French Students: Length of Stay in a French-Speaking Region: Ind2.

Mood Category	Length of Stay in French-Speaking Region	N	Subgroups 1	2
Ind2[5]	**1 year or more**	4	50.0	
	6 weeks-11months	9	66.7	66.7
	0-5 weeks	10		83.3
	Significance		.372	.372

[5]=subordinate clauses introduced by a negated main clause that requires an indicative.

Table 54: Duncan Test for French Students: Length of Stay in a French-Speaking Region: Sub3.

Mood Category	Length of Stay in French-Speaking Region	N	Subgroups 1	2
Sub3[3]	**1 year or more**	4	54.2	
	0-5 weeks	10		80.0
	6 weeks-11 months	9		81.5
	Significance		1.000	.996

[3]= interrogative sentences with a subordinate clause that requires a subjunctive.

Table 55: Duncan Test for French Students: Length of Stay in a French-Speaking Region: SubAll.

Mood Category	Length of Stay in French-Speaking Region	N	Subgroups 1	2
SubAll[7]	**1 year or more**	4	55.6	
	6 weeks-11 months	9		84.0
	0-5 weeks	10		88.9
	Significance		1.000	.558

[7]=all sentences with subordinate clauses requiring a subjunctive

Table 56: Duncan Test for French Students: Length of Stay in a French-Speaking Region: All Parameters.

Mood Category	Length of Stay in French-Speaking Region	N	Subgroups 1	2
All parameters	**1 year or more**	4	58.3	
	6 weeks-11 months	9		79.6
	0-5 weeks	10		83.1
	Significance		1.000	.548

5.5.2.6 French Students: Place(s) Where French is used

Figure 21 illustrates the mean scores of the students of French according to the place(s) where they use French (see Table 122 in Appendix J for precise values) and Table 57 gives the corresponding significance values. The ANOVA results show significant differences in the way that the three groups interpret all of the parameters and nearly

significant differences for SUB3, but we need to look at the Duncan test results in Tables 58-64 to have a clearer picture of the variation that exists.

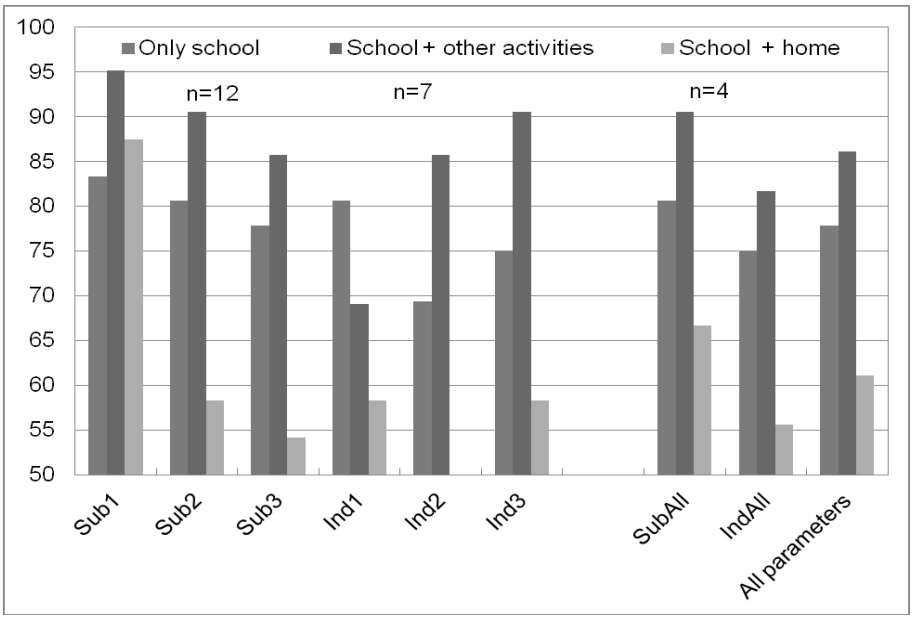

Figure 21: Mean scores for French Students: Place(s) Where French is Used.

Table 57: ANOVA for French Students: Place(s) Where French Is Used.

Mood Category	df	F	Significance
Sub1[1]	2	.862	.437
	20		
Sub2[2]	2	2.148	.143
	20		
Sub3[3]	2	3.317	.057
	20		
Ind1[4]	2	1.889	.177
	20		
Ind2[5]	2	1.517	.244
	20		
Ind3[6]	2	1.325	.288
	20		
SubAll[7]	2	2.302	.126
	20		
IndAll[8]	2	2.025	.158
	20		
All parameters	2	7.470	.001
	135		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;

[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

We hypothesized that using French at home in addition to at school would give students an advantage over their peers. Tables 58-64 show that this hypothesis is not supported because this group performed significantly less normatively than the group who only uses French at school in the case of IND1 and SUB3. As for SUB2, IND2, SUB3, SUBALL, INDALL, and All Parameters, the students who used French at school in addition to during activities obtained significantly higher scores than the group who used French at home. If anything, our results imply that students who take part in activities in French are more likely to have success when acquiring the interface phenomenon in question.

Table 58: Duncan Test for French Students: Place(s) Where French Is Used: Ind1.

			Subgroups	
Mood Category	**Place(s) Where French Is Used**	**N**	**1**	**2**
Ind1[4]	**School + home**	4	58.3	
	School + other activities	7	69.1	69.1
	Only school	12		80.6
	Significance		.374	.341

[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative.

Table 59: Duncan Test for French Students: Place(s) Where French Is Used: Sub2.

			Subgroups	
Mood Category	**Place(s) Where French Is Used**	**N**	**1**	**2**
Sub2[2]	**School + home**	4	58.3	
	Only school	12	80.6	80.6
	School + other activities	7		90.5
	Significance		.128	.486

[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive.

Table 60: Duncan Test for French Students: Place(s) Where French Is Used: Ind2.

			Subgroups	
Mood Category	**Place(s) Where French Is Used**	**N**	**1**	**2**
Ind2[5]	**School + home**	4	50.0	
	Only school	12	69.4	69.4
	School + other activities	7		85.7
	Significance		.308	.392

[5]=subordinate clauses introduced by a negated main clause that requires an indicative.

Table 61: Duncan Test for French Students: Place(s) Where French Is Used: Sub3.

			Subgroups	
Mood Category	**Place(s) Where French Is Used**	**N**	**1**	**2**
Sub3[3]	**School + home**	4	54.2	
	Only school	12		77.8
	School + other activities	7		85.7
	Significance		1.000	.485

[3]= interrogative sentences with a subordinate clause that requires a subjunctive.

Table 62: Duncan Test for French Students: Place(s) Where French Is Used: SubAll.

			Subgroups	
Mood Category	**Place(s) Where French Is Used**	**N**	**1**	**2**
SubAll[7]	**School + home**	4	66.7	
	Only school	12	80.6	80.6
	School + other activities	7		90.5
	Significance		.180	.333

[7]=all sentences with subordinate clauses requiring a subjunctive.

Table 63: Duncan Test for French Students: Place(s) Where French Is Used: IndAll.

			Subgroups	
Mood Category	**Place(s) Where French Is Used**	**N**	**1**	**2**
IndAll[8]	**School + home**	4	55.6	
	Only school	12	75.0	75.0
	School + other activities	7		81.7
	Significance		.116	.575

[8]=all sentences with subordinate clauses requiring an indicative.

Table 64: Duncan Test for French Students: Place(s) Where French Is Used: All Parameters.

			Subgroups	
Mood Category	**Place(s) Where French Is Used**	**N**	**1**	**2**
All parameters	**School + home**	4	61.1	
	Only school	12		77.8
	School + other activities	7		86.1
	Significance		1.000	.155

5.5.2.7 French Students: Hours Spent in French per Week

Figure 22 compares the means of the students of French based on the number of hours they spend in French each week (see Table 123 in Appendix J for precise values) and Table 65 displays the corresponding ANOVA results. We can see by the high significance values for SUBALL that the hours a student spends per week in French does not have much of an effect on the way that they interpret the subjunctive in the contexts under investigation, just as we predicted. As a matter of fact, they interpret SUB1 in a significantly similar manner. As for the indicative, their behaviour is neither significantly similar nor significantly different.

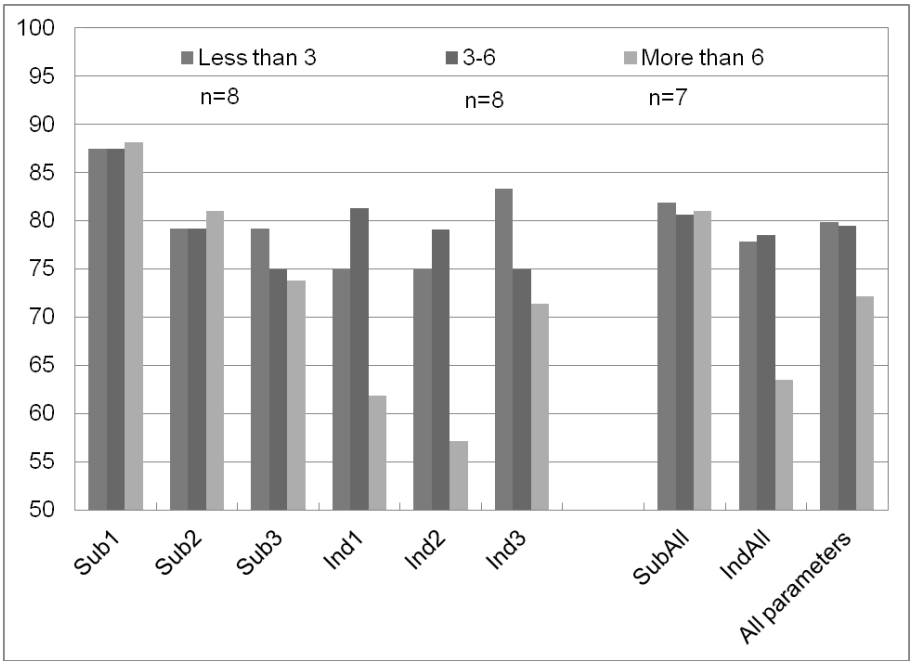

Figure 22: Mean scores for French Students: Hours Spent in French per Week.

Table 65: ANOVA for French Students: Hours Spent in French per Week.

Mood Category	df	F	Significance
Sub1[1]	2	.002	.998
	20		
Sub2[2]	2	.010	.990
	20		
Sub3[3]	2	.118	.890
	20		
Ind1[4]	2	1.602	.226
	20		
Ind2[5]	2	.868	.435
	20		
Ind3[6]	2	.252	.780
	20		
SubAll[7]	2	.011	.990
	20		
IndAll[8]	2	1.090	.355
All parameters	2	1.167	.314
	135		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.5.2.8 French Students: Self-assessment of Skills in French on a Scale of 1-4, 4 Being the Highest

Figure 23 presents the mean scores for the students of French according to their self-assessment of their skills in French (see Table 124 in Appendix J for more details) and Table 66 shows the corresponding ANOVA results. These results do not corroborate our hypothesis that the students' performance increases along with their self-assessment scores. The values for SUB2 and SUBALL show significant similarities between the mean scores of each proficiency group, whereas the ANOVA value for IND1 and the corresponding Duncan test results in Table 67 show that the more proficient one perceives oneself to be in French, the less normatively one performs in these contexts. It

seems as though the group with the highest self-assessment score associates strong intensional verbs (SUB1/IND1) with indefinite interpretations and has difficulty linking them to definite ones. Although self-assessment scores do not appear to be accurate predictors of how well a student has acquired this particular morphosyntax-pragmatic interface, we cannot assume this to be true for every aspect of French seeing as we did not evaluate any other parts of their knowledge.

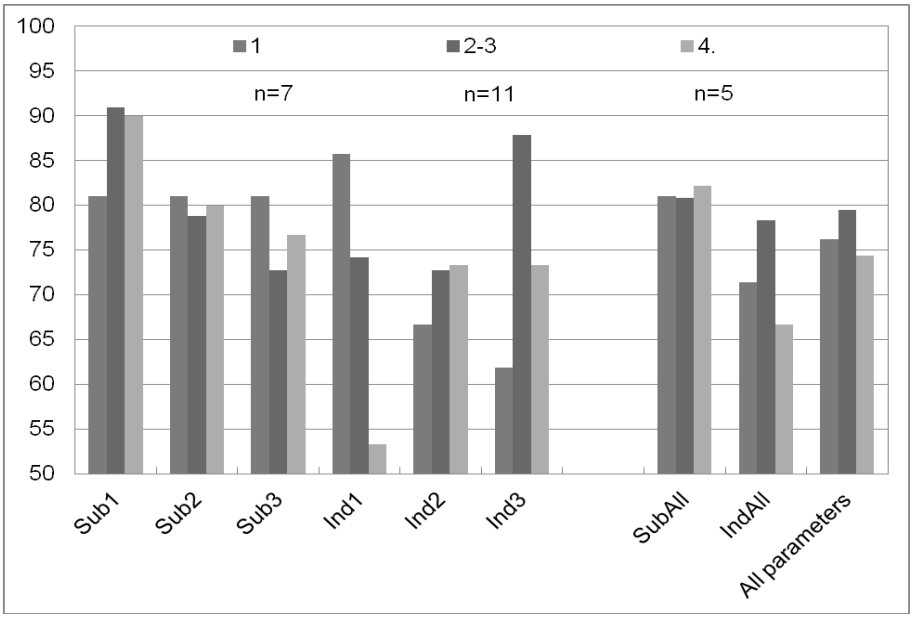

Figure 23: Mean Scores for French Students: Self-assessment of Skills in French on a Scale of 1-4, 4 Being the Highest.

Table 66: ANOVA for French Students: Self-assessment of Skills in French on a Scale of 1-4, 4 Being the Highest.

Mood Category	df	F	Significance
Sub1[1]	2	.616	.550
	20		
Sub2[2]	2	.014	.986
	20		
Sub3[3]	2	.287	.754
	20		
Ind1[4]	2	4.205	.030
	20		
Ind2[5]	2	.077	.926
	20		
Ind3[6]	2	1.465	.255
	20		
SubAll[7]	2	.009	.991
	20		
IndAll[8]	2	.609	.609
All parameters	2	.444	.642
	135		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

Table 67: Duncan Test for French Students: Self-assessment of Skills in French on a Scale of 1-4, 4 Being the Highest: Ind1.

			Subgroups	
Mood Category	**Self-assessment of Skills in French on a Scale of 1-4**	**N**	**1**	**2**
Ind1[4]	**4**	5	53.3	
	2-3	11		74.2
	1	7		85.7
	Significance		1.000	.278

[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative

5.5.2.9 French Students: Languages Spoken in Addition to English and French

Figure 24 displays the mean scores for French students (see Table 126 in Appendix J for precise values) and Table 68 gives the corresponding ANOVA results. With the exception of SUB3, the students who speak more than 3 languages obtained the highest mean scores in each category, followed by the students who speak 3 languages, trailed by the students who only speak two. Although the ANOVA only detected significant differences between all of the groups for INDALL, the Duncan succeeded in identifying other interesting divisions as well.

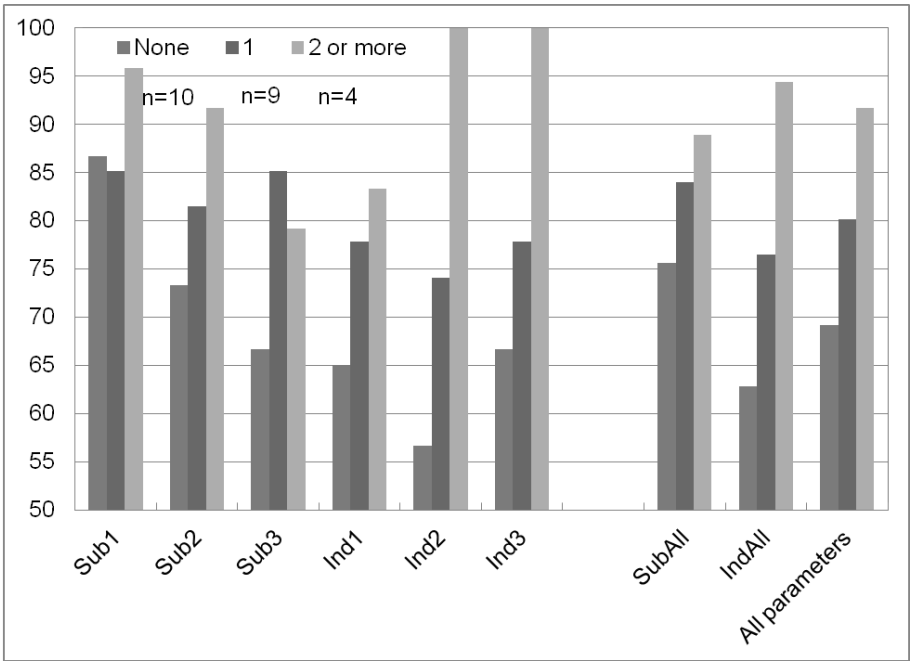

Figure 24: Mean scores for French Students: Languages Spoken in Addition to English and French.

Table 68: ANOVA for French Students: Languages Spoken in Addition to English and French.

Mood Category	df	F	Significance
Sub1[1]	2	.439	.651
	20		
Sub2[2]	2	.721	.499
	20		
Sub3[3]	2	1.901	.176
	20		
Ind1[4]	2	1.392	.272
	20		
Ind2[5]	2	2.805	.084
	20		
Ind3[6]	2	1.594	.228
	20		
SubAll[7]	2	.873	.433
	20		
IndAll[8]	2	3.908	.037
	20		
All parameters	2	7.318	.001
	135		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

By examining the Duncan test results for additional languages spoken in Tables 69-72, we are able to have a clearer understanding of the group rankings. In regards to IND2, IND3, and INDALL, it is obvious that the group who speaks the highest number of languages interprets these contexts more normatively than the group who speaks the least number. Although the group who speaks three languages could belong to either group

for these contexts, when all of the parameters are taken into account they make up their own group, which sits in between the other two.

Table 69: Duncan Test for French Students: Languages Spoken in Addition to English and French: Ind2.

Mood Category	Languages Spoken in Addition to English and French	N	Subgroups 1	2
Ind2[5]	**None**	10	56.7	
	1	9	74.1	74.1
	2 or more	4		100.0
	Significance		.328	.151

[5]=subordinate clauses introduced by a negated main clause that requires an indicative.

Table 70: Duncan Test for French Students: Languages Spoken in Addition to English and French: Ind3.

Mood Category	Languages Spoken in Addition to English and French	N	Subgroups 1	2
Ind3[6]	**None**	10	66.7	
	1	9	77.8	77.8
	2 or more	4		100.0
	Significance		.533	.220

[6]= interrogative sentences with a subordinate clause that requires an indicative.

Table 71: Duncan Test for French Students: Languages Spoken in Addition to English and French: IndAll.

Mood Category	Languages Spoken in Addition to English and French	N	Subgroups 1	2
IndAll[8]	**None**	10	62.8	
	1	9	76.5	76.5
	2 or more	4		94.4
	Significance		.219	.114

[8]=all sentences with subordinate clauses requiring an indicative.

Table 72: Duncan Test for French Students: Languages Spoken in Addition to English and French: All Parameters.

Mood Category	Languages Spoken in Addition to English and French	N	Subgroups 1	2	3
All parameters	**None**	10	69.2		
	1	9		80.2	
	2 or more	4			91.7
	Significance		1.000	1.000	1.000

5.5.3 Spanish Students

5.5.3.1 Spanish Students: No Demographic Divisions

Table 73 shows the ANOVA results for the students of Spanish for All Parameters. The significant ANOVA value tells us that the students of Spanish do not interpret each context involving mood alternations with the same degree of accuracy. The corresponding Duncan results in Table 74 help us to identify which contexts are more problematic than others. We see that IND2 receives the least normative interpretation and that SUB1 receives the most normative one. SUB2 is next in line, followed by IND3, SUB3, and IND1. Due to the equal amount of explicit instruction each context receives in class, we did not foresee internal factors having much of an effect on the students' performance. If anything, we would have been inclined to think that they would have preferred the unmarked indicative to the more marked subjunctive, giving rise to higher scores in definite contexts requiring this mood. Instead, strong intensional verbs and negation seem to trigger an indefinite interpretation even when a definite one is being forced.

Table 73: ANOVA for Spanish Students: No Demographic Divisions.

Mood Category	df	F	Significance
All parameters	5	2.510	.038
	72		

Table 74: Duncan Test for Spanish Students: No Demographic Divisions.

		Subgroups		
Mood Category	**N**	**1**	**2**	**3**
Ind2	13	69.2		
Ind1	13	75.6	75.6	
Sub3	13	82.1	82.1	82.1
Ind3	13	84.6	84.6	84.6
Sub2	13		89.7	89.7
Sub1	13			98.7
Significance		.135	.171	.105

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative.

5.5.3.2 Spanish Students: Place of Residence from Ages 8-18

Figure 25 depicts the mean scores for the students of Spanish according to their age of residence between the ages of 8 and 18 (see Table 131 in Appendix J for precise values) and Table 75 gives the corresponding significance values. Out of the 3 students who lived abroad, one spent this time living in Columbia as her mother was born there. This student obtained perfect scores in every category except for SUB3, supporting our hypothesis. Despite this advantage, the entire group that lived abroad between the ages of 8-18 only obtained higher mean scores than the Canadians regarding SUB1 and IND1. As for SUB2, the Canadians had significantly higher scores and their performance for SUBALL approached the level of significance as well. However, given the small number of students who resided abroad during their youth, these results do not carry much weight.

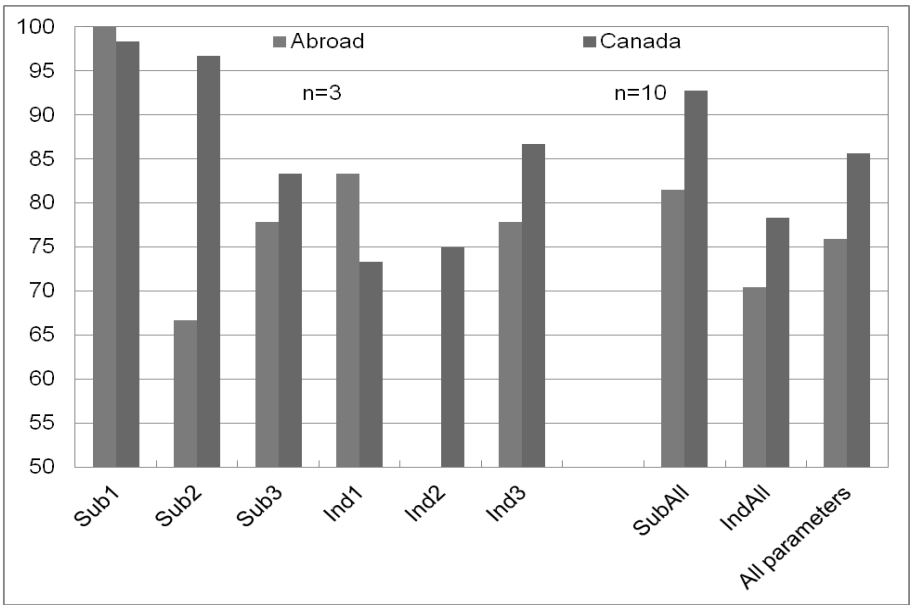

Figure 25: Mean scores for Spanish Students: Place of Residence from Ages 8-18.

Table 75: ANOVA for Spanish Students: Place of Residence from Ages 8-18.

Mood Category	df	F	Significance
Sub1[1]	1 11	.282	.606
Sub2[2]	1 11	7.090	.022
Sub3[3]	1 11	.223	.646
Ind1[4]	1 11	.162	.695
Ind2[5]	1 11	2.004	.185
Ind3[6]	1 11	.356	.563
SubAll[7]	1 11	4.610	.055
IndAll[8]	1 11	.269	.614
All parameters	1 76	2.124	.149

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;

[8]=all sentences with subordinate clauses requiring an indicative.

5.5.3.3 Spanish Students: Origin of Parents

Figure 26 shows the mean scores for the students of Spanish based on the origin of their parents (see Table 132 in Appendix J). The ANOVA was unable to detect significant differences between all of the groups (see Table 133 in Appendix J), but the Duncan test managed to discover two different subgroups, as shown in Tables 76 and 77. According to the results, students with two foreign parents (i.e. from Bosnia, Bulgaria, Switzerland, etc.) interpret SUB2 significantly less normatively than all the others. As for SUBALL, the students with two Canadian parents obtained significantly higher scores than those with two foreign parents, but the students with one of each could belong to either subgroup. It is difficult to determine the reasons behind these outcomes, but one could conjecture that it is linked to cultural differences regarding educational traditions. Given the small sizes of the three groups, it is difficult to tell whether or not these results are typical of the groups or the individuals themselves, and therefore they need to be interpreted with caution.

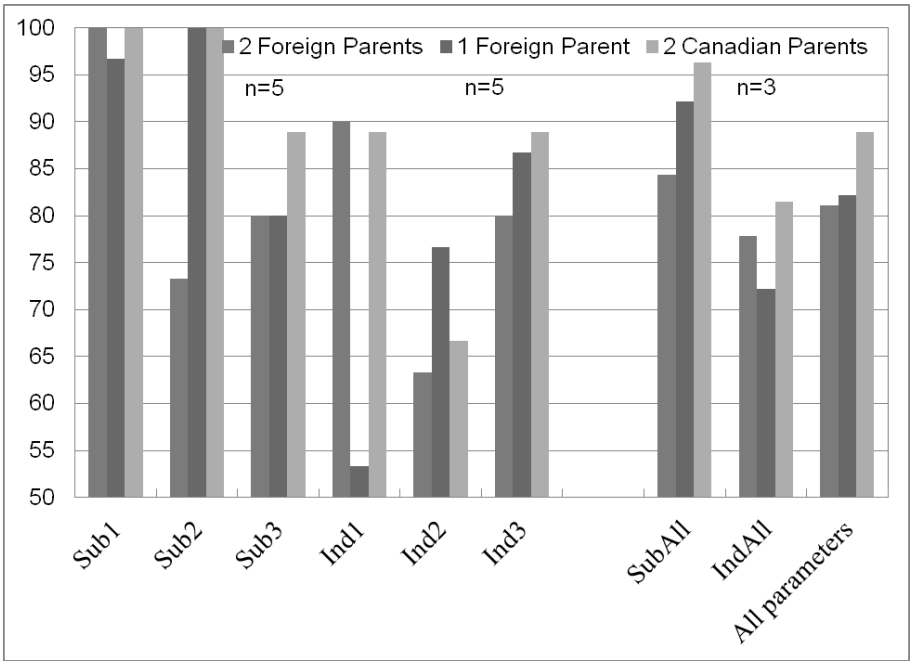

Figure 26: Mean scores for Spanish Students: Origin of Parents.

Table 76: Duncan Test for Spanish Students: Origin of Parents: Sub2.

			Subgroups	
Mood Category	**Origin of parents**	**N**	**1**	**2**
Sub2[2]	**2 Foreign Parents**	5	73.3	
	1 Foreign Parent	5		100.0
	2 Canadian Parents	3		100.0
	Significance		1.000	1.000

[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive.

Table 77: Duncan Test for Spanish Students: Origin of Parents: SubAll.

			Subgroups	
Mood Category	**Origin of parents**	**N**	**1**	**2**
SubAll[7]	**2 Foreign Parents**	5	84.4	
	1 Foreign Parent	5	92.2	92.2
	2 Canadian Parents	3		96.3
	Significance		.213	.502

[7]=all sentences with subordinate clauses requiring a subjunctive.

5.5.3.4 Spanish Students: Field of Studies

Figure 27 presents the mean scores for the students of Spanish according to their field of studies (see Table 136 in Appendix J for precise values) and Table 78 shows the corresponding significance values. These results run counter to our hypothesis that specializing in a language increases one's ability to interpret mood alternation. The significance values for IND1, IND3, SUBALL, and INDALL show (counter intuitively) that students who are not specializing in languages have a better mastery of the subjunctive. Apparently, more time on task and the goal of using Spanish professionally does not translate into a better understanding of mood alternation.

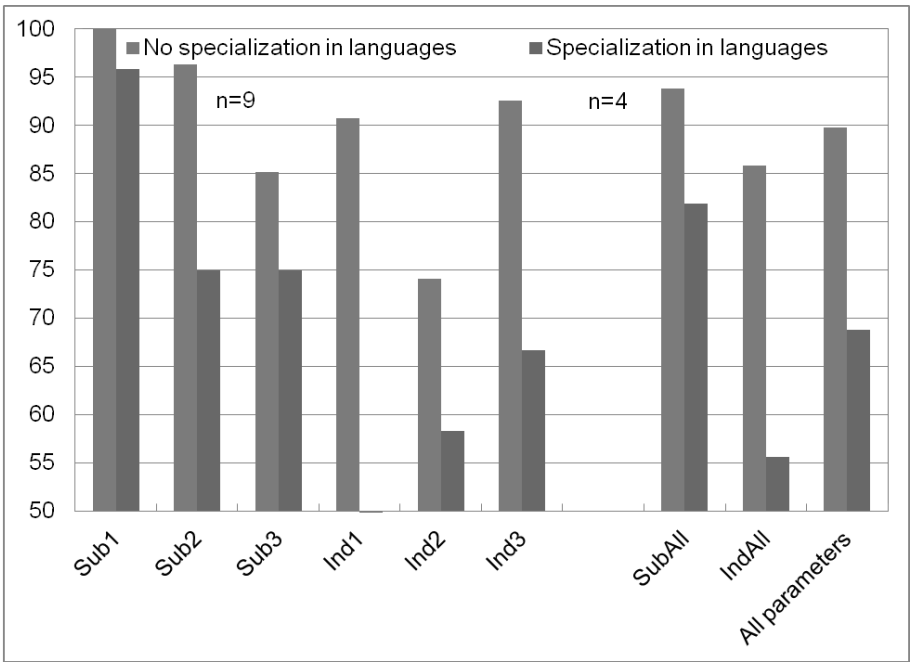

Figure 27: Mean scores for Spanish Students: Field of Studies.

Table 78: ANOVA for Spanish Students: Field of Studies.

Mood Category	df	F	Significance
Sub1[1]	1 11	2.538	.139
Sub2[2]	1 11	3.417	.092
Sub3[3]	1 11	.957	.349
Ind1[4]	1 11	7.949	.017
Ind2[5]	1 11	.870	.371
Ind3[6]	1 11	5.183	.044
SubAll[7]	1 11	7.096	.022
IndAll[8]	1 11	7.769	.018
All parameters	1 76	14.061	.000

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;

[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.5.3.5 Spanish Students: Length of Stay in a Spanish-Speaking Region

Figure 28 compares the means of students of Spanish who have spent varying lengths of time in a Spanish-speaking region (see Table 143 in Appendix J for precise values) and Table 79 displays the corresponding ANOVA results. Judging by the significantly similar results of all of the groups for SUBALL, the length of time spent in a Spanish-speaking region neither increases nor decreases one's ability to associate the subjunctive with indefinite contexts. We had postulated that spending a year or more in a native environment would increase one's performance, but as there was only one student who fit this description, it is impossible to draw any reliable conclusions from these results.

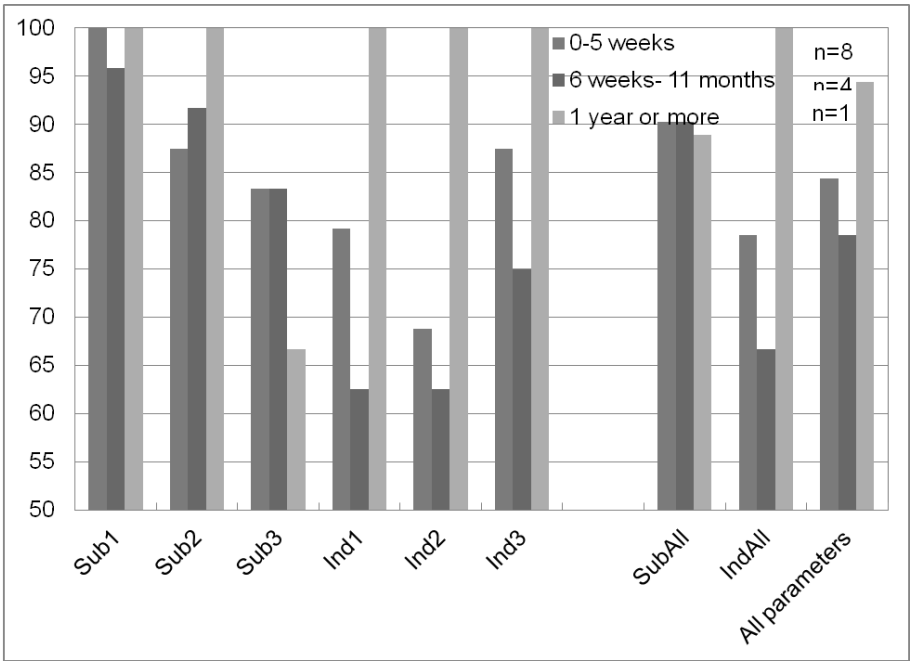

Figure 28: Mean scores for Spanish Students: Length of Stay in a Spanish-Speaking Region.

Table 79: ANOVA for Spanish Students: Length of Stay in a Spanish-Speaking Region.

Mood Category	df	F	Significance
Sub1[1]	2	1.154	.354
	10		
Sub2[2]	2	.156	.858
	10		
Sub3[3]	2	.385	.690
	10		
Ind1[4]	2	.477	.634
	10		
Ind2[5]	2	.686	.526
	10		
Ind3[6]	2	.655	.540
	10		
SubAll[7]	2	.009	.991
	10		
IndAll[8]	2	.422	.422
	10		
All parameters	2	1.112	.334
	75		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;
[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

5.5.3.6 Spanish Students: Hours Spent in Spanish per Week

Figure 29 shows the mean scores for students of Spanish according to the hours they spend in Spanish per week (see Table 146 in Appendix J for precise values) and Table 80 gives the corresponding significance values. By taking solely the ANOVA results into account, we are only able to detect a difference in interpretation which touches on being significant for IND1. However, the corresponding Duncan test results provided in Tables 81-83 allow us to see the divisions between groups with more clarity.

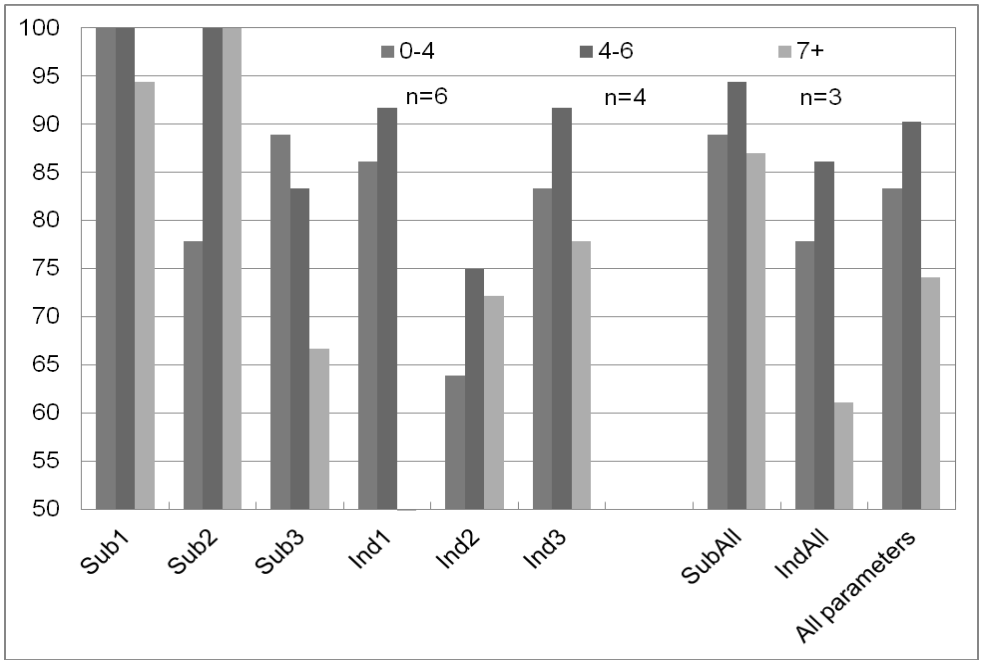

Figure 29: Mean scores for Spanish Students: Hours Spent in Spanish per Week.

Table 80: ANOVA for Spanish Students: Hours Spent in Spanish per Week.

Mood Category	df	F	Significance
Sub1[1]	2	1.923	.196
	10		
Sub2[2]	2	2.154	.167
	10		
Sub3[3]	2	1.923	.196
	10		
Ind1[4]	2	3.989	.053
	10		
Ind2[5]	2	.183	.835
	10		
Ind3[6]	2	.319	.734
	10		
SubAll[7]	2	.635	.550
	10		
IndAll[8]	2	1.083	.375
	10		
All parameters	2	2.275	.110
	75		

[1]=subordinate clauses introduced by a strong intensional verb that requires a subjunctive;
[2]=subordinate clauses introduced by a negated main clause that requires a subjunctive;
[3]= interrogative sentences with a subordinate clause that requires a subjunctive;
[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative;

[5]=subordinate clauses introduced by a negated main clause that requires an indicative;
[6]= interrogative sentences with a subordinate clause that requires an indicative;
[7]=all sentences with subordinate clauses requiring a subjunctive;
[8]=all sentences with subordinate clauses requiring an indicative.

In Table 81, we are surprised to find that the students who spend the greatest amount of time in Spanish obtained significantly lower scores than their peers for IND1. They remain at the bottom of the pack for SUB3 (see Table 82) and for All Parameters (see Table 83), with the other two groups shifting between first and second position. We had postulated that the number of hours one spends in Spanish per week would yield no benefit in light of the complexity of the grammatical concept we are examining, thus these results come as a surprise.

Table 81: Duncan Test for Spanish Students: Hours Spent in Spanish per Week: Ind1.

			Subgroups	
Mood Category	**Hours spent per week in Spanish**	**N**	**1**	**2**
Ind1[4]	**7+**	3	33.3	
	0-4	6		86.1
	5-6	4		91.7
	Significance		1.000	.797

[4]=subordinate clauses introduced by a strong intensional verb that requires an indicative.

Table 82: Duncan Test for Spanish Students: Hours Spent in Spanish per Week: Sub3.

			Subgroups	
Mood Category	**Hours spent per week in Spanish**	**N**	**1**	**2**
Sub3[3]	**7+**	3	66.7	
	5-6	4	83.3	83.3
	0-4	6		88.9
	Significance		.174	.636

[3]= interrogative sentences with a subordinate clause that requires a subjunctive.

Table 83: Duncan Test for Spanish Students: Hours Spent in Spanish per Week: All Parameters.

			Subgroups	
Mood Category	**Hours spent per week in Spanish**	**N**	**1**	**2**
All parameters	**7+**	3	74.1	
	0-4	6	83.3	83.3
	5-6	4		90.3
	Significance		.192	.327

5.5.3.7 Spanish Students: Self-assessment of Skills in Spanish on a Scale of 1-4, 4 Being the Highest

Figure 30 displays the means obtained by students of Spanish according to their self-assessment of their skills in Spanish (see Table 147 in Appendix J for precise values). Although the ANOVA (see Table 148 in Appendix J) did not reveal any significant differences between all three proficiency groups, the Duncan test (see Table 84 below) was able to find a significant difference between two of the groups for SUBALL. Contrary to our predictions, students' performance for SUBALL decreased as their self-assessment score increased. In fact, those who assigned the highest score to their level of proficiency interpreted SUBALL significantly less normatively than those who assigned the lowest score to their level of proficiency.

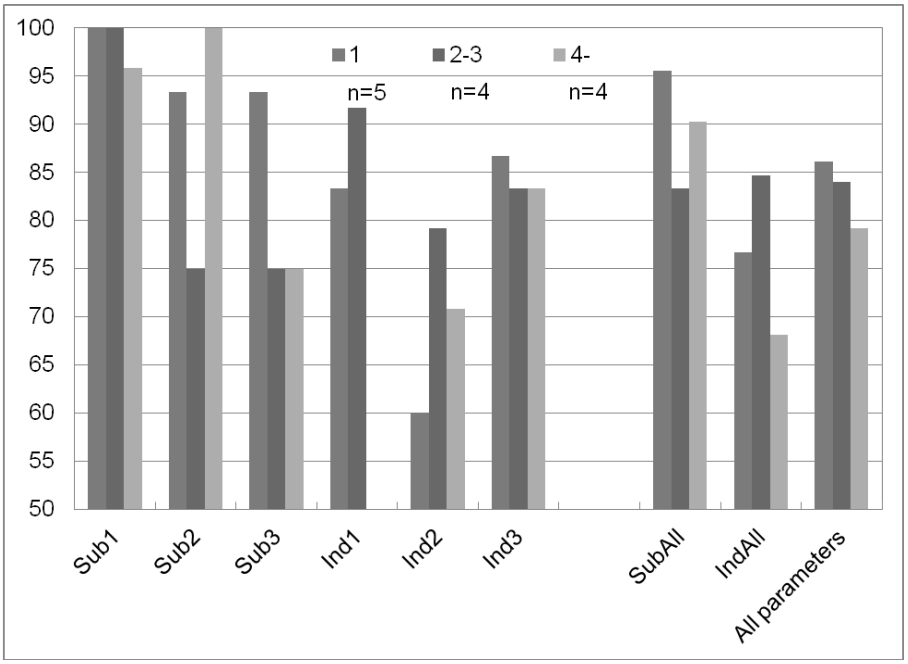

Figure 30: Mean Mean scores for Spanish Students: Self-assessment of Skills in Spanish on a Scale of 1-4, 4 Being the Highest.

Table 84: Duncan Test for Spanish Students: Self-assessment of Skills in Spanish on a Scale of 1-4, 4 Being the Highest: SubAll.

			Subgroups	
Mood Category	**Self-assessment of skills in Spanish on a scale of 1-4**	**N**	**1**	**2**
SubAll[7]	2-3	4	83.3	
	4	4	90.3	90.3
	1	5		95.6
	Significance		.241	.366

[7]=all sentences with subordinate clauses requiring a subjunctive.

5.5.3.8 Spanish Students: Languages Spoken in Addition to English and Spanish

Figure 31 presents the mean scores for Spanish students according to the languages they speak in addition to English and Spanish (see Table 149 in Appendix J for precise values). Although the ANOVA (see Table 150 in Appendix J) yielded no significant values, the Duncan results provided in Table 85 were able to detect significant differences between two of the three groups. When all of the parameters are taken into account, the two students who speak two or more languages (Italian with parents and French, Serbo-Croatian with parents and French) perform significantly more normatively than those who only speak one more, and therefore belong to the higher subgroup.

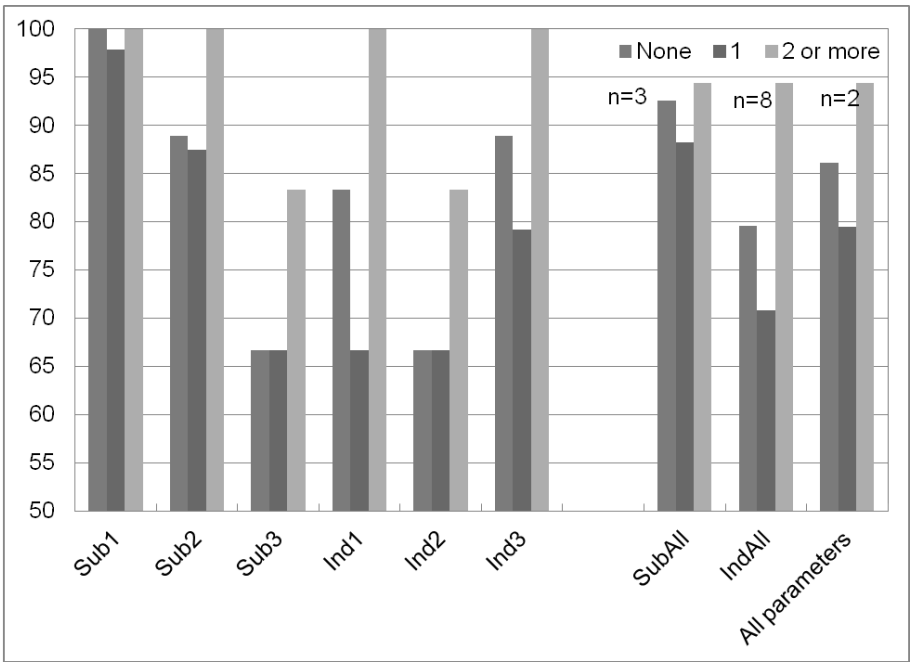

Figure 31: Mean scores for Spanish Students: Languages Spoken in Addition to English and Spanish.

Table 85: Duncan Test for Spanish Students: Languages Spoken in Addition to English and Spanish: All Parameters.

Mood Category	Languages Spoken in Addition to English and Spanish	N	Subgroups 1	2
All parameters	**1**	8	79.5	
	None	3	86.1	86.1
	2 or more	2		94.4
	Significance		.411	.300

5.6 Summary of Results

In this section we summarize the results of the French versus Spanish NSs, the French NSs, the Spanish NSs, the students versus NSs, the French students, and the Spanish students.

5.6.1 French and Spanish Native Speaker Comparison

A comparison of the French and Spanish NSs reveals that the Spanish NSs interpret IND1 significantly more normatively than the French NSs. With respect to all of the mood categories, although no other significant differences manifested themselves between the two groups, it cannot be overlooked that both French and Spanish NSs interpret mood in ways that deviate from the prescriptive norm.

5.6.2 French Native Speakers

Before sorting the French NSs into various demographic divisions, we see that French NSs as a whole interpret IND1 the least normatively and IND3 and SUB1 the most normatively. When we divide the French NSs into their appropriate age groups, the Duncan test reveals that 30-39-year-olds interpret SUB3 significantly less normatively than the 18-29-year-olds and the 40+ group. As for level of studies, high school students perform significantly less normatively than undergraduate students in the case of SUB2 and All Parameters. With regards to occupation, participants whose job did not require a professional degree performed significantly more normatively than those whose job did in the categories INDALL, IND3, and All Parameters. Dialectal differences also seemed to arise: the French-speaking Europeans performed significantly more normatively than the Ontarians for SUB1; the Africans performed significantly less normatively than the other speakers for IND2, and SUB3; the Africans performed significantly less normatively than all of the other speakers save the Acadians for SUBALL; the Africans performed significantly less normatively than the Quebecers for INDALL; and the Africans performed significantly less normatively than all of the other speakers save the Ontarians for All Parameters. No significant differences were found concerning the sex of the speaker.

5.6.3 Spanish Native Speakers

Considering the Spanish NSs as a whole before placing them into various demographic divisions, we notice that this group interprets SUB1 significantly more normatively than all of the other mood categories save SUB3. Unlike the French NSs, when the sex of the Spanish NSs was taken into account the female speakers interpreted IND3 significantly more normatively than the male speakers. Also in contrast to the French NS results, no significant differences were detected when the age, education, and occupation of the Spanish NSs were examined. As for dialectal differences, evidence suggests that the following divisions exist: for All Parameters and SUBALL, the Peruvians perform significantly less normatively than all of the other speakers, the speakers from Argentina/Uruguay performing the most normatively of all; for SUB1 and IND2 the Peruvians perform significantly less normatively than all of the other groups; for SUB2 the speakers from Argentina/Uruguay and Spain perform significantly more normatively than all of the other speakers; for SUB3 and IND3 the speakers from Argentina/Uruguay and Spain perform significantly more normatively than the Peruvians; and for INDALL the speakers from Argentina/Uruguay and Spain perform significantly more normatively than the speakers from Peru and Columbia/Venezuela.

5.6.4 Students vs. Native Speakers

No significant differences appear to exist between the ways in which French NSs and French NNSs as a whole interpret mood. However, when the NNSs were classified as "L2 students of French without Spanish as an L3" and "L2 students of French with Spanish as an L3," the latter group performed more normatively than the NSs in each context whereas the former group performed significantly less normatively than the NSs for IND2 and IND3. Consequently, it seems likely that having Spanish as an L3 is advantageous when acquiring grammatical mood alternations in French.

In the case of Spanish NSs versus Spanish NNSs, no significant differences are revealed between the way that these groups interpret the subjunctive with the exception of SUB2. Ironically, the NNSs performed significantly more normatively than the NSs when this mood category was concerned. Nevertheless, when the NNSs were grouped according to

the languages they spoke, “L2 Spanish without knowledge of French” and “L3 Spanish with L2 French,” the latter group performed more normatively than the NSs whereas the former group had lower scores than the NSs for INDALL, IND1, IND2, IND3, and SUB2. Consistent with the results of the French NSs and NNSs, multilingualism seems to be more beneficial than bilingualism when acquiring grammatical mood alternations in Spanish.

5.6.5 French and Spanish Students

Before looking at the results of the students of French and the students of Spanish separately, these two groups were compared. Our results only revealed a significant difference for SUB1, which the students of Spanish interpreted more normatively.

When looking solely at the results of the French NNSs, the Duncan test shows that they interpret SUB1 significantly more normatively than IND1 and IND2. Regarding the age factor, the 30+ group interpreted SUB1 significantly less normatively than the 18-19 and 20-29-year-olds. The 20-29-year-olds interpreted SUBALL significantly more normatively than the 30+ group, and All Parameters significantly more normatively than the 30+ group and the 18-19-year-olds. As for age of initial age of acquisition, those who began acquiring French after the age of 8 scored significantly higher for IND1 than those who began acquiring it before age 8, a result which runs counter to intuition. Other counter-intuitive results include those for French Immersion vs. Core French students where those who had only completed a Core French program scored significantly higher than those who had completed a French Immersion program for All Parameters. The length of time the participants spent in a French-speaking region once again contradicted our predictions because those who had spent the most time abroad obtained significantly lower scores than the other groups for SUB1, SUB2, SUB3, SUBALL, and All Parameters. As for IND2, those who had spent the least amount of time in a French-speaking region performed significantly more normatively than those who had spent the most time in a French-speaking region. More puzzling results come to light when looking at the places where the NNSs use French: the group who used French at home and at school obtained significantly lower scores than those who used it at school and during other activities for SUB2, IND2, SUB3, and SUBALL. Furthermore, the group

who only used French at school also obtained significantly higher scores than the group who also used it at home for SUB3. Equally as enigmatic are the significant differences that arise for IND1 when the self-assessment scores are taken into account: the students who rated their abilities the highest obtained significantly lower scores than the others. Finally, the results for languages spoken in addition to English and French are more in line with our predictions: those who spoke two or more languages in addition to English and French performed significantly more normatively than those who spoke none for IND2, IND3, and INDALL. When All Parameters are concerned, the scores increased significantly along with the number of languages spoken.

The results of the Spanish NNSs when examined in isolation reveal that these participants interpret SUB1 significantly more normatively than IND1 and IND2, IND1 being interpreted more normatively than IND2. Once demographic divisions are taken into consideration, we find that those who lived in Canada from 8-18 obtained significantly higher scores for SUB2 than those who lived abroad during that period in their lives. Significant differences were also detected based on the origin of the students' parents. For instance, those with two foreign parents performed significantly less normatively than those with one or no foreign parents. Those with two foreign parents also obtained significantly lower scores than those with two Canadian parents for SUBALL. Unexpectedly, the students specializing in languages obtained significantly lower results than those with a different specialization for IND1, IND3, SUBALL and INDALL. Other unforeseen results include: for IND1, the students who spent the most time in Spanish per week (7+ hours) performing significantly less normatively than the other two groups; for SUB3, the 0-4 hours per week group performing significantly more normatively than the 7+ group; and for All Parameters, the 5-6 hours per week performed significantly more normatively than the 7+ group. In accordance with the French NNS results but counter to our predictions, the students who attributed the lowest self-assessment scores to their abilities in Spanish obtained significantly higher scores than those who rated their Spanish skills the highest for SUBALL. Lastly, the students who spoke two or more languages in addition to English and Spanish performed significantly more normatively than those who only spoke one more language.

In summary, our participants and the tasks they completed have provided us with a rich resource of results to draw upon in our discussion. In Section 6, we aim to use these results in order to help us identify the internal and external factors responsible for variation in mood alternation amongst NSs and NNSs alike.

Chapter 6

6 Discussion

In this chapter we discuss the results in relation to each hypothesis and their theoretical implications.

6.1 Results Regarding Hypotheses for Control Groups

The results for the control groups will first be discussed regarding our hypotheses relating to external factors and then our hypotheses relating to internal factors.

6.1.1 Hypotheses Relating to External Factors

a. Sex. We wanted to investigate whether women interpreted mood more normatively than men since they tend to prefer the standard form of a linguistic variable, or if they were leading a linguistic change instead and neutralizing the distinction between the subjunctive and the indicative. In the case of French, the lack of significant differences between the scores of these two sexes on the scenario selection task (see Table 89 in Appendix J) leads us to believe that that men and women interpret grammatical mood alternations in a similar fashion. However, if we examine the results for the Spanish NSs, we find that women interpret IND3 more normatively than men, suggesting that in the case of interrogative sentences with a subordinate clause that requires an indicative, women privilege the standard form in this particular language.

b. Age. We conjectured that older adult speakers would interpret the subjunctive and the indicative more normatively than younger adult speakers. Our French NS results from SUB1 and IND1 do not support this hypothesis seeing as all of the age groups obtained significantly similar scores when strong intensional verbs were involved. In the first case, the French NSs performed closely to the norm while in the second, they all deviated from it. Our results from SUB3 also run counter to this hypothesis because the 30-39-year-olds obtained significantly lower scores than the 18-29-year-olds. Given that the Spanish NS results do not

uncover any significant differences at all between age groups, it seems that our hypothesis is not supported.

c. Social class. We used highest level of education and occupation as predictors of social class. We hypothesized that the higher the level of education a participant had, the more normatively he or she would perform on the scenario selection task. If we concentrate on the performance of the French NSs in regards to All Parameters, we find a certain degree of support for our first hypothesis because the undergraduate students performed significantly more normatively than the high school students, with the graduate students' scores being in between those of the other two groups. If we examine each mood category individually, we discover that only the results for SUB2 mimic this same trend, the other categories manifesting no significant differences at all. As for the results of the Spanish NSs concerning level of education, they did not provide any support for our hypothesis at all.

We further theorized that a NS whose job required a professional degree would obtain higher scores than one whose job did not. The complete lack of significant differences amongst the scores of the Spanish NSs who have various occupations leaves our hypothesis unsupported, while the significant differences that arise amongst the French NSs contradict our predictions. Where INDALL, IND3, and All Parameters were concerned, the French NSs who had a profession not requiring a professional degree performed significantly more normatively than those whose profession did.

d. Origin. We postulated that dialectal differences would exist between the way that NSs interpreted grammatical mood alternations, but we were unsure of how they would manifest themselves and therefore considered this hypothesis to double as a research question. Out of all of our hypotheses concerning external factors, this one found the most support from both the French and Spanish results. Additionally, our research question was met with some interesting discoveries. For example, when we concentrate on the French NS results for All Parameters,

we notice that the Africans perform significantly less normatively than the majority of NSs from other regions, with the exception of Ontarians. If we divide All Parameters into SUBALL and INDALL, we see that the Africans performed significantly less normatively than the Ontarians, the Quebecers, and the Europeans in the subjunctive contexts and that the Africans obtained significantly lower scores than the Quebecers in the indicative contexts. In order to find more subtle differences between dialects, we need to break SUBALL and INDALL down into smaller mood categories. When this is done, we find that the Africans performed significantly less normatively than the NSs from all of the other regions in the categories of IND2 (negation) and SUB3 (interrogation). As for SUB1 (strong intensional verbs), the Europeans interpreted SUB1 (intensional verbs) significantly more normatively than the Ontarians and the Africans' mean scores blended in with those of the Quebecers and the Acadians. In brief, we have found ample evidence in the French results to support our hypothesis that dialectal differences exist when grammatical mood alternations are concerned. However, there does not seem to be a neat rule that every region follows for all mood categories and thus each category must be treated in isolation. Moreover, because our groups were not even in size and the African group was composed of various African countries, it would be necessary to conduct a study on a larger scale with more precise divisions in order to have a better idea of where and how these dialectal differences manifest themselves.

The results of the Spanish NSs were equally as forthcoming, allowing us to identify several dialectal divisions. The NSs that performed the most normatively overall were those from Spain and Argentina/Uruguay. Those from Peru obtained the lowest scores, and those from Columbia/Venezuela and Mexico belonged to a subgroup of their own in between the other two. These same three dialectal divisions resurfaced for SUBALL, but different dialectal differences emerged for INDALL: the Spaniards and the Argentines/Uruguayans maintained the highest means, but the Columbians/Venezuelans had significantly lower scores like the Peruvians, and the Mexicans could not be separated from either group. Not surprisingly, when we examine each mood category individually, the Peruvians

always interpreted mood less normatively than the Spaniards and the Argentines/Uruguayans for SUB1, SUB2, SUB3, IND2, and IND3. The latter group, it appears, does not deviate much from the norm at all. The Mexicans and the Columbians/Venezuelans joined the Spaniards and the Argentines/Uruguayans in the highest subgroup for SUB1 and IND2, but their scores were significantly lower like those of the Peruvians for SUB2. Regarding IND3, these two dialects did not manifest clear distinctions from either that of the Peruvians or those of the Spaniards and Argentines/Uruguayans. In summary, our results provide strong support for our hypothesis that NSs vary in the way that they interpret grammatical mood alternations, and are very much in accordance with the findings of Quer (1998). Nevertheless, just as we stipulated in our discussion of the French NS results, there is no set hierarchy for which dialect will most closely resemble the norm; each mood category needs to be considered as a separate entity. Additionally, we cannot overlook the fact that our dialectal divisions were less than ideal. Due to a shortage of participants in certain countries, some borders had to be collapsed in order to allow for a statistical analysis to be carried out. Obviously, it would be impossible to fully grasp the influence of this external factor on mood interpretation without carrying out a more exhaustive investigation.

6.1.2 Hypotheses Relating to Internal Factors

a. Neutralization. We had hypothesized that since the less-marked indicative replaces the more-marked subjunctive in cases of neutralization, deviations from the norm would occur more often with the subjunctive than with the indicative. This was true for the French NSs when interrogative sentences were involved because the Duncan test showed that they obtained significantly higher scores for IND3 than SUB3, but the rest of our results did not support this hypothesis. For example, both French and Spanish NSs obtained higher scores on SUBALL than on INDALL. The Duncan test further revealed that they all interpreted SUB1 significantly more normatively than IND1, implying that NSs associate strong

intensional verbs more readily with the subjunctive than with the indicative. The results of our French and Spanish students continue to challenge this hypothesis because they all interpreted SUB1 significantly more normatively than IND1 and IND2. On the whole, it does not appear that the marked-unmarked factor has a strong influence on the way that adult NSs or advanced learners of French and Spanish interpret grammatical mood alternations.

b. Frequency. We hypothesized that the more frequent a structure was, the more normatively it would be interpreted. Lacking data from previous studies, we viewed this hypothesis as more of research question that would help us to identify which structures appeared with more or less frequency in French and Spanish. If a more normative interpretation does indeed correspond to higher frequency, then our French and Spanish NS and NNS results suggest that it is more common to find subordinate clauses introduced by strong intensional verbs followed by a subjunctive than by an indicative. In French alone, it would also appear that interrogative sentences are more frequently followed by an indicative than by a subjunctive.

c. Saliency. We had conjectured that the Spanish NSs and NNSs would interpret mood in a more normative manner than the French NSs and NNSs given that subjunctive morphology in Spanish is always saliently distinct from that of indicative morphology, whereas this is not necessarily the case in French. Although the Spanish NSs did interpret IND1 significantly more normatively than the French NSs, overall there was not enough evidence to support this hypothesis. Likewise, even though the Spanish NNSs interpreted SUB1 significantly more normatively than the French NNSs and obtained higher scores in every single category save IND2, these results are unconvincing.

d. Complexity. We had put forward the hypothesis that NSs would interpret subordinate clauses introduced by strong intensional verbs more normatively than subordinate clauses introduced by a negated main clause due to the latter's increased structural complexity. We were unsure of where interrogative

sentences fit into the hierarchy of complexity and so decided to use our results as a compass. If we concentrate on the subjunctive, the Duncan results for both French and Spanish NSs reveal that they obtained significantly higher scores for SUB1 (strong intensional verbs) than SUB2 (negation), confirming our hypothesis. SUB3 (interrogation) was not interpreted significantly more or less normatively than either of these, and so our research question does not have a clear answer. On the other hand, our results for the indicative run counter to our hypothesis because the French NSs obtained significantly higher scores for IND2 (negation) than for IND1 (strong intensional verbs). As for our inquiry into interrogation, the French NSs interpreted IND3 (interrogation) significantly more normatively than IND1. In the case of the Spanish NSs there was no significant difference in how they interpreted IND1, IND2, or IND3. So as not to ignore L2 and L3 acquisition, we need to comment on the results of our NNSs. When examining the performance of our L2 French participants, we are unable to detect any significant increase or decrease in scores based on structural complexity. In contrast, the results of our Spanish L2 and L3 participants yield visible divisions, but they are inconsistent. For example, these learners interpret SUB1 more normatively than SUB2 and IND2, supporting our hypothesis that subordinate clauses introduced by strong intensional verbs receive a more normative interpretation than subordinate clauses introduced by a negated main clause. However, there is no significant difference between their interpretation of IND1 and SUB2 and IND2. Overall, the contradictory results for the French NSs, the inconclusive results for the Spanish NNSs, and the unvarying results of the Spanish NSs and the French NNSs lead us to believe that complexity may not play as large a role in mood interpretation as we had previously thought. However, it must be noted that we founded our hypothesis on data from the L1 acquisition literature and so it is possible that the outcomes of a similar study carried out with child participants rather than adult participants might tell a different story.

6.2 Results Regarding Hypotheses for Students of French and Spanish

The results for the students of French and Spanish and how they relate to our hypotheses are divided into three subsections. First, we discuss cross-linguistic influence. Next, we investigate the influence of demographic traits and linguistic background.

6.2.1 Cross-linguistic Influence

a. L2 learners' performance on scenario selection task. We postulated that advanced L2 learners would perform well on the scenario selection task. Although neither the NSs nor the NNSs of French obtained perfect scores on the scenario selection task, we consider the lack of significant differences between their results to be evidence supporting our hypothesis. We observe a similar pattern between the results of the NSs and the NNSs of Spanish, except for SUB2, where the NNSs performed significantly more normatively than the NSs. Seeing as this disparity between scores reflects more solid knowledge as opposed to less solid knowledge of normative grammar rules on the part of the learners, our hypothesis does not lose support. Our results corroborate those of Borgonovo *et al*. (2008) who found that L1 speakers of French with advanced knowledge of their L2 Spanish performed like Spanish NSs when interpreting grammatical mood alternations. As this was not the case for their L1 French participants with an intermediate level of L2 Spanish, they postulated that proficiency plays a stronger role in native-like attainment of this morphosyntax-pragmatics phenomenon than does typological similarity between the TL and the source language. In order to test this theory, Borgonovo *et al*. (2008) suggested that learners with an L1 that does not exhibit the optional subjunctive be tested, which is what we did. Given that our advanced L1 English speakers performed like the NSs, our results lend support to this proficiency versus typology hypothesis.

Previous research (Cenoz, 2001; De Angelis & Selinker, 2001; Dewaele, 1998; Möhle, 1989; Odlin, 1989; Williams & Hammarberg, 1998, etc.) has already identified proficiency as being a factor that could affect the type and quality of

CLI on the TL, and our study is in accordance with existing knowledge that positive transfer typically takes place at advanced stages. Although this type of interaction is most frequent with cognates, it is said that if a learner is quite advanced, it is possible to observe transfer at the levels of syntax and semantics. Our study also succeeds in advancing our knowledge of what can be positively transferred when a learner is very advanced, revealing possible interactions at the levels of morphosyntax and pragmatics.

Moreover, our results allow us to enter into the debate as to whether or not the acquisition of interface phenomena could be retarded or flawed in the subsequent acquisition of an L2 (Paradis & Navarro, 2003; Serratrice *et al*., 2004; Sorace, 2000; Sorace *et al*. 2009). Tsimpili & Sorace (2006) believe the syntax-pragmatics interface to be more problematic for L2 learners to acquire than the syntax-semantics interface, as does White (2008), who classifies the former interface as 'external' and the latter as 'internal.' Although White (2008) would describe the acquisition of 'external' interfaces, which relate the computational system (syntax) to the conceptual-intentional system (discourse), as being challenging for even very advanced L2 learners, we are not inclined to agree. Rather, our results suggest that at an advanced level L2 learners do not have difficulty overcoming the constraints of their L1 and acquiring external interface properties active solely in their L2. That being said, we are only able to comment on receptive skills due to the nature of our research instruments and would need to administer an oral task as well in order to be able to comment on productive skills. After all, as Sorace & Serratrice (2009) point out, executive control limitations in handling multiple languages in real time can affect the degree of attainment of interface structures.

Widening the scope, our results also shed light on the question of access to UG. White (2003) points out that if subtle and abstract linguistic properties that could neither be learned from L2 input nor from the L1 grammar are present in the knowledge that a learner possesses of his or her L2, a strong case can be made in favour of the existence of UG principles in interlanguage. Seeing as the interface

phenomenon we studied behaves differently in our participants' L1 (English) and L2 (French or Spanish), we can eliminate transfer as a plausible explanation for the newly acquired knowledge of the L2 learner. Moreover, it is very doubtful that this phenomenon could be acquired uniquely by coming into contact with input from the L2. Consequently, our results join those of previous studies (Haznedar, 1997; Schwartz & Sprouse, 1996; Slabakova, 2000; White, 2003; Yuan, 1998) which provide evidence that L2 input leads L2 learners to arrive at the same UG-constrained mental representations as NSs. As for access to UG in terms of L3 learners, our results are in-line with those of Karpava *et al*. (2012) and García Mayo & Villarreal Olaizola (2010) who examined the developing morphology of Basque-Spanish bilinguals in L3 English. One group learned English through content transmitted through the language rather than focusing on the language itself, whereas the other group focused on the language more so than on communication. The fact that both groups exhibited similar interlanguages containing very few performance errors in the morphological elements analyzed, regardless of amount of exposure to the target language, seems to support the theory of full access to UG.

b. L3 learners' performance versus L2 learners' performance on scenario selection task. We anticipated that the L3 learners would obtain higher scores than the L2 learners. When directly comparing the L2 learners of French with L3 Spanish to those without Spanish, we observe that the L2 French learners with L3 Spanish perform significantly more normatively for All Parameters than the L2 learners of French without Spanish. Additionally, even though no significant difference was found for their performance in individual mood categories, the L2 learners of French with L3 Spanish obtained higher scores in every context. By comparing the NNS results with those of the NSs, we notice that the L2 learners of French with L3 Spanish obtained significantly higher scores overall than the French NSs, whereas the L2 learners of French without Spanish obtained significantly lower scores than the NSs not only for All Parameters, but also for IND2 and IND3. Such evidence lends strong support to our hypothesis that increased contact with the optional subjunctive reinforces the concept and leads to more native-like

proficiency in regards to this particular morphosyntax-pragmatics interface phenomenon.

As we move on to compare the Spanish NNS results to those of the Spanish NSs, we notice that the learners of L3 Spanish performed significantly better for SUB3 and SUBALL than the NSs. As for the learners of L2 Spanish, no significant differences were found between their scores and those of the NSs, highlighting the more solid knowledge of normative grammar rules on the part of the L3 learners. It appears as though the L3 learners are advantageously applying their knowledge of the optional subjunctive from French into Spanish, but a larger sample size in the future would help us to reach more definitive conclusions.

The results of the learners of L2 Spanish versus those of the learners of L3 Spanish further corroborate our hypothesis. The L3 learners of Spanish obtained significantly higher scores than their L2 peers for All Parameters, IND3, INDALL, and SUB2. If we compare these outcomes with those of the French students, we might conjecture that order of acquisition plays a role. Due to significance values, it appears that having French as an L2 is more beneficial when acquiring mood distinctions in Spanish as an L3 than having Spanish as an L3 is when acquiring the same phenomena in French as an L2. In other words, positive cross-linguistic influence is stronger when moving from the L2 to the L3 than from the L3 back to the L2. A possible explanation could be that students consciously rely on their L2 to help them with their L3, but because they feel more confident in their L2 than they do in their L3, they do not consciously try to apply similar concepts from their L3 back into their L2.

Our results are in accordance with those of Dewaele (1998) who concluded that order of acquisition plays a role in determining the type of CLI found in the TL. Dewaele (1998) explains that the L2 and L3 develop links of varying strength with the L1, and that the L3 has stronger ties to the L2 than to the L1. Our study add to our knowledge of this factor that only applies to TLA research, and not to

SLA research, by providing evidence for a stronger tie moving from the L2 and the L3 than moving from the L3 and the L2.

6.2.2 Influence of Demographic Traits and Linguistic Background

a. Sex. We did not foresee any significant differences between the performance of the males and females on the scenario selection task and our results did not detect any either. We had proposed that this lack of heterogeneity could be attributed to the fact that all language students at this level are self-selected and thereby equally motivated and capable, but we cannot ignore the possibility that such outcomes occurred due to the smaller number of males involved in the study. An equally plausible explanation, however, could simply be that male and female language students indeed do not behave differently with respect to the acquisition of grammatical mood alternations in French and Spanish.

b. Age. We had predicted that the performance of the participants would decrease as their age increased and found supporting evidence in the French NNS results for SUB1 where the 18-19-year-olds and the 20-29-year-olds obtained significantly higher results than the group over 30 years of age. Although the 30+ group did perform significantly less normatively than the 20-29-year-olds, this was not the case with the 18-19-year-olds and so our hypothesis does not seem to hold true. Given that the Spanish NNS results did not yield any significant divisions between age groups, it appears that the current age of the learner does not affect his or her ability to acquire grammatical mood alternation in a classroom setting. However, as the age groups did not have an even number of participants and there were so few students over the age of 30, it would be best to conduct another study with a more balanced distribution before ruling out age as a factor.

c. Residence 8-18. We hypothesized that living abroad would prove to be advantageous for a learner only if he or she were in an environment where the TL was dominant, and that the length of their residency would also be a factor. Even

though 4 of the French NNSs had lived abroad during this period in their lives, none of them had been in a place where French was an official language and no significant differences were found between their results and those of the others (see Table 110 in Appendix J), partially supporting our hypothesis. Unfortunately, as none of our participants had lived in a French-speaking region, it was impossible to fully investigate the impact of this factor. Our Spanish NNS results, on the other hand, provided information about students who had lived abroad in an environment where the TL was dominant and where it was not. Of these three students, the one who had lived in Columbia obtained perfect scores for each mood category with the exception of SUB3. Since there was only one student who fit this description, we were unable to conduct a statistical analysis comparing this participant's results to those of the students who had been living in Canada during this period and those who had been living abroad in a country where Spanish was not an official language. We decided to collapse the two groups of students who had lived abroad and compare them to the Canadian group for exploratory purposes, knowing that these findings in no way would help us to accept or reject our hypothesis. Therefore, due to the lack of participants who met the criteria for this factor, we must leave future studies with the responsibility of verifying our hypothesis.

d. Origin of parents. We predicted that having parents of foreign origin would only help in the acquisition process if they were NSs of the TL. Some of the French NNSs had one or two foreign parents, but none of them were of French-speaking origin and no significant results came to light when comparing the results of the participants with foreign parents to those without (see Table 112 in Appendix J). For this reason, we would need to include participants with one or two parents of foreign origin whose L1 was French before we could truly test this hypothesis. Although we did have one participant from the Spanish NNS group whose mother was from Columbia, it was statistically impossible to compare her results to those of any other group. Consequently, we folded her into the group of students who had one foreign parent from a country where Spanish was not dominant. Our results suggest that having foreign parents who are not from a Spanish-speaking

place has no positive effect on acquiring this particular interface phenomenon, which partially confirms our hypothesis. Nevertheless, we must reiterate that it is essential that we examine students whose parents come from a wider variety of backgrounds, especially ones from a region where the TL is spoken, before we can even begin to discuss whether or not our hypothesis has empirical support.

e. Occupation of parents. We conjectured that having at least one parent whose occupation required a professional degree would lead to enhanced performance on the selection scenario task. Given that neither the results from the French NNSs (see Table 114 in Appendix J) or from the Spanish NNSs (see Table 135 in Appendix J) showed any significant differences between these types of students, it appears that the occupation of the L2 or L3 learners' parents does not affect their ability to interpret mood in French or Spanish. Such an outcome could be explained in terms of education. Despite the fact that these students come from different socio-economic backgrounds, they have all managed to achieve the same level of education in their non-native tongues and are therefore products more so of their classroom environments than of their home environments when communicating in French and/or Spanish.

f. Field of studies. We hypothesized that students specializing in languages would outperform those not specializing in languages. Our French NNSs did not detect any significant difference between the performances of these two types of students on the scenario selection task, implying that specializing in a language at university does not necessarily translate into more native-like interpretations of mood distinctions. Oddly, our Spanish NNS results contradicted our hypothesis because the students specializing in languages obtained significantly lower results for IND1, IND3, SUBALL, and INDALL. Are the students who are not specializing in languages more motivated to learn Spanish because it is not a required course? As it is not a mandatory credit, we had (erroneously) postulated that they would take the language learning process less seriously. If both groups had performed similarly, we would not have been quite so surprised. However, the fact that the "specialists" had significantly lower scores has left us puzzled. Of

course, we cannot forget the fact that the sample sizes are small and imbalanced. Another possible explanation for this lack of support for our hypothesis in the results could be attributed to the fact that categorizing the students as "specialists" and "non-specialists" might not be a sufficiently accurate reflection of differences in instructional time thus far in their study of the language.

g. Age of initial acquisition. We postulated that a decrease in age of initial acquisition would translate into an increase in performance. No supporting evidence was found in either the French NNS or Spanish NNS (see Table 138 in Appendix J) results, and for one mood category, IND1, those who started learning French after age 8 obtained significantly higher scores than those who started learning it at a younger age. We are reminded of the L2 literature on the sensitive period where some subcomponents of language have been shown to be subject to critical periods of different onsets and offsets while others do not. For example, Long (1990, 2005) proposes that native-like attainment of phonetics and phonology becomes less likely somewhere between the ages of 6 and 12, but that the end of offset for morphosyntax extends into the midteens. Our results suggest that if the morphosyntax-pragmatics interface is one of the subparts of language subject to a critical period, the end of offset is after childhood.

   Besides, we cannot ignore the fact that the learning experience of the majority of these students is confined to a school setting and does not extend into a natural one, affecting the amount and quality of L2 input. Rothman & Guijarro-Fuentes (2010) remind us that L2 learners in a classroom setting, even ones whose experience is supplemented with authentic native materials and some contact with NSs, receive much less input than those acquiring an L2 in a naturalistic setting. Additionally, instructed L2 learners are often taught by L2 learners themselves. Since even very advanced L2 speakers of a language exhibit language use that deviates from that of NSs, the input that these students receive is qualitatively different from that which an L1 child or a naturalistic L2 learner receives. Formally-instructed L2 learners often receive more non-native input from their classmates, leaving them with more input to sift through (native input versus non-

native input) than naturalistic learners (only native input). Given these quantitative and qualitative differences input, the asymmetrical outcomes of classroom versus naturalistic learning come as no surprise.

h. Place of initial acquisition. We foresaw that the place where a student first learned the TL would affect their performance on the scenario selection task, the participants who had first learned the TL at home scoring the highest, followed by those who began learning it in primary school, followed by those who commenced the process in secondary school. With regards to the French NNSs, it must be pointed out that none of these participants started learning French at home; they all started learning it at school. Seeing as age did not play a role in mood acquisition in a non-natural setting, it is of no wonder that there was no significant difference between the results of those who had started learning French in primary school and those who had starting learning it in secondary school (see Table 119 in Appendix J). If we had had participants from all three categories, we would have been able to fully check our hypothesis. Instead, we are left with evidence that implies that it does not matter whether one starts learning French earlier or later in school, but it is still unclear as to the effect that initially learning French in a natural setting has on mood interpretation. Unfortunately, our Spanish NNS results (see Table 140 in Appendix J) do not shed much light on this subject either since only one of these participants had started learning Spanish in a natural environment and no significant differences were detected between the scores of those who had started learning it in secondary school, post-secondary school, or at home.

i. Role of the target language in school. We predicted that French Immersion students would outperform Core French students. This hypothesis did not apply to the students of Spanish since Spanish Immersion programs do not exist in Canada. Although no significant differences manifested themselves when the mood categories were analyzed separately, the Core French students obtained significantly higher scores than the French Immersion students for All Parameters, a finding which is not consistent with our hypothesis. These results

suggest that grammatical mood alternation is a concept too complex to be mastered in an immersion program alone, backing up previous research reported by Swain (1985) who asserts that a communicatively oriented classroom rich in input does not guarantee target-like performance in French, and by Canadian Parents for French (2000) who admit that even though the French Immersion model produces better results than Core French programs, the abilities of functionally bilingual graduates from French Immersion programs do not match those of French NSs. Given that more emphasis is put on communicative use of the language rather than on formal grammar instruction in the French Immersion classroom, it is not surprising that these students have deficiencies in the area of formal grammar. Since students from a Core French background would have had little exposure to contexts where mood can alternate without ungrammaticality before university, explicit instruction, study, and practice could be possible explanations for their enhanced performance

j. Length of stay in a region where the TL is spoken. We had hypothesized that the students who had spent a year or more abroad would perform at a more native-like level than the others, but we failed to find a superior effect for study abroad on the L2 learner's grammatical accuracy, as have other studies (Huebner, 1995; DeKeyser, 1991), despite the gains their authors documented in lexical development. By examining the results of the French NNSs, we might infer that exposure to mood alternation in a natural setting is not sufficient to acquire this interface phenomenon. If these students did not receive explicit instruction regarding mood alternation before their trip, they may not have had the necessary tools for decoding and reinforcing this concept in their minds. Given that the students who had spent from 0 to 5 weeks in a French-speaking region obtained significantly higher scores in the majority of the mood categories than those who had spent over a year in a native environment, it seems that it is possible to interpret mood in a normative manner by relying solely upon normative rules studied in class. Unfortunately, as there was only one student from the Spanish NNS group who had spent more than a year abroad, we were unable to test our hypothesis for this language.

k. Place(s) where the TL is used. We conjectured that using the TL in contexts outside of school would lead to increased performance on the scenario selection task. We further anticipated that using the TL at home would be more advantageous than using it in other environments. The results of our Spanish NNSs may not reveal any significant differences, but our French NNS results are in accordance with our hypothesis while contradicting it at the same time. The students who used French during activities in addition to at school obtained significantly higher scores than those who used French at school and at home for SUB2, IND2, SUB3, SUBALL, INDALL, and All Parameters. In other words, the evidence suggests that using the TL in contexts outside of school does lead to increased performance on the scenario selection task, but it depends upon the context. Additionally, no significant differences were found between the scores of the students who used French only at school and those who used it during other activities as well.

   Rather than clarifying the role that place of use plays in mood interpretation, our results have left us with many unanswered questions. Why do students who use French at home have lower scores than their peers? Is the result attributable to sample size? Do they put less effort into studying because they already have high proficiency in this language? Are they using French at home with relatives or with their partner (none of the participants listed 'home' as being the place of initial acquisition of the TL)? Is it a case of poverty of the stimulus where these types of situations do not occur frequently enough in their familiar interactions to allow for proper processing of the concept? Are those who use French at home restricted NSs, Anglo-dominant rather than Franco-dominant? If this is the case, is their dominant language, English, a source of negative transfer? Or is the enhanced performance on the part of the students who use French during activities attributable to increased motivation?

l. Hours spent in the TL per week. We did not foresee the hours spent in the TL per week having a significant effect on mood acquisition, and the results of our French NNSs support this supposition. Spending less than 3 hours, between 3 and

6 hours, or more than 6 hours did not produce any significant differences in the way that students of French interpreted mood. On the contrary, the Spanish NNS results lead us to question our hypothesis because the students who spent the most hours in the TL per week obtained significantly lower scores than those who spent the least amount of time in the TL for IND1 and SUB3. Since the group who spent the most time per week in Spanish was so small, this could be the reason for such counter-intuitive results, but a larger sample would need to be tested to know for certain.

m. Self-assessment of the skills in the TL on a scale of 1-4, 4 being the highest. We hypothesized that there would be a direct correlation between the self-assessment score and the score on the selection scenario task: the higher the first, the higher the second. Our French NNS results, however, do not corroborate this hypothesis. There were virtually no significant differences between the scores of the participants who rated their skills as being 1, 2-3, or 4. Only the results for IND1 proved to contain divisions, and they were unanticipated: the students who had rated their proficiency in French as being the highest obtained significantly lower scores than their peers. We wondered whether this difference in self-assessment scores could be related to the immersion-core dimension, since French Immersion students might be expected to rate their own proficiency more highly than Core French students would rate theirs due to increased confidence in the educational model they were enrolled in, and so proceeded to compare the mean self-assessment scores of the Core French students to those of the French Immersion students. We found that although French Immersion students had an average proficiency rating of 3 (SD=0.7) out of 4 and Core French students only had an average rating of 2.5 (SD=0.7), this difference was not significant (F(1, 21)=2.196, p<.153).

The immersion-core dimension does not exist where our Spanish NNSs are concerned, but their results have a lot in common with those of the French NNSs. For example, there was only one mood category that showed any significant difference between scores: SUBALL. Counter-intuitively, the students who

attributed the lowest rating to their proficiency level obtained significantly higher scores than those who rated their proficiency level as being 2-3. A possible explanation could be that these students have had more contact with NSs or media produced by NSs and are more aware of the discrepancies that exist between their skills and those of NSs, thus rating themselves more realistically on a scale that extends beyond the classroom.

n. Languages spoken in addition to English and the TL. We guessed that speaking languages in addition to English and the TL would only have a positive effect on the scores of the learners if they contained grammatical mood alternations similar to those found in the TL. We find strong evidence to support this hypothesis in the results of the French NNSs where the students who spoke at least two languages in addition to English and French obtained significantly higher results for IND2, IND3, INDALL, and All Parameters than those who only spoke English and French. We wonder whether these findings might be attributable to positive transfer. Of the four students who speak at least two languages in addition to English and French, one of them has native-like proficiency in Polish and advanced knowledge of Spanish. The other three speak Spanish and Italian, one of whom has Italian parents and native-like competencies in this Romance language which also manifests mood distinctions. Another factor that could be at play here is motivation because learning these extra languages is not mandatory. Without interviewing the students or administering a research tool such as Gardner's Attitude Motivation Test Battery (AMBT) (1985), we are only dealing with assumptions and cannot accurately comment on such an intangible aspect of the language learning process.

   The results of the Spanish NNSs also confirmed our hypothesis to a certain extent. The two students who spoke English, Spanish, French, and either Italian or Polish obtained significantly higher scores than those who only spoke English, Spanish, and one other language for All Parameters. However, the small sample size lessens the impact of these findings.

Summing up, our results supported certain hypotheses but not others. At times, our findings even contradicted our predictions. In the instances where we formulated research questions rather than hypotheses, our results were able to shed light on said queries. Most importantly, this discussion of our results has enabled us to identify future areas of research whose potential theoretical implications necessitate study on a larger scale. In Section 7, after giving a brief synopsis of our current study, we articulate these promising areas of future research.

Chapter 7

7 Conclusions

In this section we summarize our study and its findings, and then propose avenues for future research in this area.

7.1 Summary of our Study

The present study has examined how factors such as cross-linguistic influence affect the degree of attainment of one morphosyntax-pragmatic interface phenomenon in particular: the subjunctive in French and Spanish in contexts where mood can alternate without ungrammaticality.

Previous research in the area of mood has shown parallels between L1 and L2 acquisition of mood, dialectal variation in regards to mood usage (Faingold, 2003), and variability in mood interpretation amongst NSs (Quer, 1998). A pertinent academic debate related to the acquisition of mood is the ability (or lack thereof) of adult NNSs to attain native-like proficiency in the use of interface phenomena such as grammatical mood alternations (Borgonovo *et al*., 2006). A related debate involves whether or not L2 learners have access to UG, the strongest argument in favour of the existence of UG in interlanguage being the successful acquisition of a property that behaves differently in the L1 and L2 of the learner which cannot be explained purely by transfer from the L1 or exposure to L2 input (White, 2003). When dealing with L1 speakers of English, a language which does not manifest grammatical mood alternations, and L2 speakers of French or Spanish, languages which do, we find ourselves in a situation which meets these criteria.

More recent research in the field of SLA has delved into the differences between SLA and TLA (Angelis, 2007) and the factors that can help or hinder CLI. Our study joins this trend of research because it compares the interpretation of grammatical mood alternations on the part of L2 learners to that of L3 learners, providing further evidence that typological distance between the source language and the TL, proficiency level in the L2 and L3, and order of acquisition affect the type and quantity of CLI on the TL.

Although our study's main focus has been the identification of factors, both external and internal, which affect the degree of attainment of the optional subjunctive by NNSs, we also looked for parallels in the way that NSs interpret mood. Our findings regarding NSs reveal that neither sex, current age, level of education, nor occupation seem to play much of a role in the way that they interpret grammatical mood alternations. The origin of the NSs was the only external factor which appeared to cause variation in the way that mood was interpreted in both French and Spanish.

Our findings concerning NNSs show similar trends, suggesting that the sex, current age of the learner, and occupation of his or her parents are not useful predictors of native-like attainment of grammatical mood variation. Other factors which do not seem to have a significant effect on acquisition of mood include the decision to specialize in languages, the age of initial acquisition of the TL in a classroom setting, participating in a French Immersion program, studying abroad, spending increased hours in the TL per week, and giving oneself a higher assessment of one's skills in the TL. Unfortunately, we are unable to comment on factors related to the residence of the learner between the ages of 8 and 18, the origin of the learner's parents, and the place of initial acquisition of the TL due to the lack of participants meeting the criteria needed to analyze these factors. However, our findings do suggest that the places where one uses the TL could produce more native-like interpretations of the optional subjunctive; those who used French at school and during other activities obtained higher score on the selection scenario task than those who used French at school and at home. The number and type of languages spoken in addition to English and the TL also seem to lead to positive transfer.

As for our findings related to the internal factors which affect mood interpretation by both NSs and NNSs, it does not seem likely that neutralization and complexity are noteworthy. Saliency did not yield interesting differences between the French and Spanish NS results, and the higher scores for the Spanish NNSs compared to the French NNSs were not significant, leading us to doubt the importance of this factor. As for the frequency factor, if a more normative interpretation truly does indicate higher frequency, then subordinate clauses introduced by strong intensional verbs appear to occur more frequently followed by a subjunctive than by an indicative in both French and Spanish.

Particular to French would also be the higher frequency of indicatives as opposed to subjunctives in interrogative sentences.

Collentine (2003) suggests that the subjunctive's distributional characteristics regarding the input that L1 Spanish children receive is an important external factor which can affect its behaviour in childhood acquisition. Whether cue frequency or cue strength plays the larger role in accelerated acquisition, the author is unsure (the former phenomenon refers to the regularity with which one hears a particular matrix verb in conjunction with the subjunctive, whereas the second one refers to the reliability with which the subjunctive co-occurs with certain matrix verbs). If children do indeed acquire the subjunctive in certain contexts more easily than others because of cue frequency, then our reasoning for finding support for the frequency factor via more normative interpretations of mood seems less circular and more logical.

Out of all of our findings, the ones pertaining to cross-linguistic influence proved to be the most informative. Our results suggest that advanced proficiency in an L2 plays a more important role in determining the successful acquisition of a property in that language than does the typological similarity between the source language and the TL. Our study also reveals that it could be possible to observe transfer at the levels of morphosyntax and pragmatics. Furthermore, our findings provide evidence to support the theory that advanced L2 learners are able to overcome the constraints of their L1 and acquire interface properties active solely in their L2. These findings also lead us to believe that L2 learners have access to UG and are able arrive at the same UG-constrained mental representations as NSs.

Besides contributing to our knowledge of factors affecting transfer in SLA and to the academic debates involving the acquisition of interface phenomena and access to UG, our findings further research in the burgeoning field of TLA. Our results provide evidence that L2 learners advantageously apply their knowledge of the optional subjunctive to their L3 and vice versa, but they also indicate that order of acquisition plays a role in this process. More precisely, positive cross-linguistic influence appears to be stronger when moving from the L2 to the L3 than from the L3 back to the L2.

7.2 Future Research

Future research could help to better our knowledge of the internal and external factors affecting the interpretation of mood on the part of both NSs and NNSs by using larger sample populations meeting all of the criteria necessary for investigation. Given that the origin of the NSs seemed to be the most important predictor of variability amongst their interpretations of the subjunctive, it would be helpful to conduct a more exhaustive study of dialectal variation and the optional subjunctive, including more dialects than the ones examined in the present study. In the case of the NNSs, it would be wise to incorporate a research instrument capable of gauging motivation into future studies so as to clarify the importance of its role in TLA. For instance, Gardner's mini-AMTB has demonstrated its reliability and validity in previous investigations pertaining to SLA such as Masgoret, Bernaus & Gardner (2001) and Tennant & Gardner (2003). It would also be fruitful to collect production data to compare to this interpretation data with the goal of assessing productive versus receptive skills. Finally, in order to increase our understanding of the acquisition of interface phenomena by L3 learners (as opposed to by L2 learners as is the current trend), future studies would need to be carried out using other interface properties, preferably both internal (intersections between syntax and morphology, syntax and phonology, syntax and semantics, etc.) and external (intersections between syntax and discourse) ones. A concrete example would be recreating Hulk & Müller's (2000) study on the development of object drop and root infinitives in a Dutch-French and a German-Italian bilingual child compared to monolingual speakers, and then expanding it to include multilingual participants as well. Seeing as current research in TLA is interested in explaining how this field differs from SLA, such a comparison could be enlightening. Above all, it could possibly add to the lively dialogue on the factors affecting cross-linguistic influence. Are all types of interface properties equally susceptible to cross-linguistic influence when multilingualism is involved? Could positive cross-linguistic influence aid adults to acquire external interface properties, known to be the most difficult type to acquire, if they speak more than two languages? Would a plurilingual setting, where the learner switches between languages, produce

different results from a multilingual setting, where the learner uses each language separately? More investigations are still needed in order to find answers to these questions and so would be promising avenues for future research.

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Appendices

Appendix A: Ethics Approval Notice for Control Groups

Faculty of Arts and Humanities

[redacted]

Use of Human Subjects - Ethics Approval Notice

Review Number	**2008-012**	**Approval Date**	**November 21 2008**
Principal Investigator	**Jeff Tennant**	**End Date**	**November 20, 2009**
Protocol Title	"Dialectical and Sociolinguistic Variation in the Use of Subjunctive in French and Spanish"		

This is to notify you that The University of Western Ontario Faculty of Arts and Humanities Research Ethics Board (AHREB) has granted ethics approval to the above named research study on the date noted above

The AHREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: http://www.uwo.ca/research/ethics/)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the AHREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly report to the AHREB:
a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) all adverse and unexpected experiences or events that are both serious and unexpected;
c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the AHREB for approval.

Members of the AHREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the AHREB.

[redacted]

David Heap
Chair, Faculty of Arts and Humanities Expedited Research Ethics Board (AHREB)

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CC: UWO Office of Research Ethics

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Appendix B: Ethics Approval Notice for Students

Faculty of Arts and Humanities

[redacted]

Use of Human Subjects – Revised Ethics Approval Notice

Review Number	2008-012	Approval Date	December 8, 2009
Principal Investigator	Jeff Tennant	End Date	March 1, 2010
Protocol Title	Acquisition of the subjunctive in Spanish and an L3: Contexts where mood can alternate without ungrammaticality		
Sponsor			

This is to notify you that The University of Western Ontario Faculty of Arts and Humanities Research Ethics Board (AHREB) has granted expedited ethics approval to the above named research study on the date noted above.

The AHREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: http://www.uwo.ca/research/ethics/)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the AHREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly report to the AHREB:
a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) all adverse and unexpected experiences or events that are both serious and unexpected;
c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the AHREB for approval.

Members of the AHREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the AHREB.

[redacted]

Ileana Paul
Chair, Faculty of Arts and Humanities Expedited Research Ethics Board (AHREB)

CC: UWO Office of Research Ethics

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Appendix C: Letter of Information

LETTER OF INFORMATION

Dialectal and Sociolinguistic Variation in the Use of the Subjunctive in French and Spanish

I am a PhD student in the French Department at The University of Western Ontario working under the supervision of Jeff Tennant, Professor of French and Linguistics and Department Chair, and the information that I am collecting will be used for a synthesis article I am writing as part of my doctoral degree, as well as being a study for a possible larger research project.

As a native speaker of French or Spanish, you are being invited to participate in a research study looking at dialectal and sociolinguistic variation in the use of the subjunctive.

If you agree to take part in this study, I would like to ask you to fill out a linguistic profile questionnaire (i.e. age, gender, education, etc.) as well as complete a scenario selection task. These tasks will take no more than 30 minutes of your time in total and will be filled out online by using the following link: www.simpleinternetconsulting.ca/audrey

There are no known risks to your participation in this study.

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your academic status.

You will not get a personal benefit from participating in this study.

If the results of the study are published, your name will not be used and no information that discloses your identity will be released or published. Your research records will be stored in a secure computer and viewed only by members of the research team.

If you have any questions about the study, you may contact me, Audrey Restorick, at [redacted] or Dr. J. Tennant at [redacted].

If you have any questions about your rights as a research subject you may contact the Office of Research Ethics, The University of Western Ontario at [redacted] or [redacted].

Appendix D: Letter of Information

LETTER OF INFORMATION

Acquisition of French and Spanish

I am a PhD student in the French Department at The University of Western Ontario working under the supervision of Jeff Tennant, Professor of French and Linguistics, and the information that I am collecting will be used for a study I am conducting as part of my doctoral thesis.

As an Anglophone learner of French and/or Spanish, you are being invited to participate in a research study looking at the acquisition of French and Spanish.

If you agree to take part in this study, I would like to ask you to fill out a linguistic profile questionnaire (i.e. age, gender, education, etc.), a language competency self-evaluation questionnaire, as well as complete a scenario selection task. These tasks will take no more than 90 minutes of your time in total.

There are no known risks to your participation in this study.

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your academic status.

You will not get a personal benefit from participating in this study.

If the results of the study are published, your name will not be used and no information that discloses your identity will be released or published. Your research records will be stored in a secure computer and viewed only by members of the research team.

If you have any questions about the study, you may contact me, Audrey Restorick, at [redacted] or Dr. J. Tennant at [redacted].

If you have any questions about your rights as a research subject you may contact the Office of Research Ethics, The University of Western Ontario at [redacted] or [redacted].

Appendix E: Profil linguistique

A. Informations personnelles

1. SEXE: ____ Homme ____ Femme

2. ÂGE: ____18-19 ____20-29 ____30-39 ____40-49 ____50-59 ____60+

3. NIVEAU D'ÉDUCATION LE PLUS HAUT:

_____

Si vous avez fait des études post secondaires veuillez répondre aux parties a-c. Sinon, avancez à la question 4.

a. Spécifiez votre/vos domaine(s) d'étude(s)

_____

b. Si vous avez complété une maîtrise ou un doctorat, spécifiez votre/vos domaine(s) d'étude(s) pour chacun.

_____

c. Spécifiez si vous avez assisté à un Institut universitaire de formation des maîtres, à une faculté de droit ou de médecine, à une grande école de commerce, etc.

_____

4. VOTRE PROFESSION:_____

5. LIEU DE NAISSANCE (ville, province/état, pays):

_____

6. LIEU DE RÉSIDENCE ACTUEL (ville, province/état, pays) :

_____

7. LIEU DE RÉSIDENCE ENTRE LES ÂGES DE 8 À 18 ANS:

_____

8. LIEU DE NAISSANCE DE VOTRE PÈRE (ville, province/état, pays) :

_____

9. PROFESSION(S) DE VOTRE PÈRE:

_____

10. LIEU DE NAISSANCE DE VOTRE MÈRE (ville, province/état, pays):

_____

11. PROFESSION(S) DE VOTRE MÈRE :

_____

Appendix F: Test de sélection de scénarios

Vous verrez une phrase produite par un personnage fictif précédée de deux histoires dans lesquelles le personnage apparaît. Pour chaque phrase produite, vous devez indiquer laquelle est la plus appropriée. Si les deux semblent appropriées en ce qui concerne la phrase, indiquez celle qui est meilleure selon vos instincts. Si vous n'êtes pas sûr(e), encerclez le point d'interrogation "?". Veuillez utiliser cette option le moins que possible.

Ne changez pas vos réponses.

1	a. Je suis allée à la plage avec mon mari mardi. Notre ami veut savoir ce qu'on a fait. Nous disons : Nous nagions. b. Mon mari et moi étions très sportifs dans notre jeunesse. Notre ami veut savoir si on pratiquait un sport ensemble. Nous disons qu'autrefois : Nous nagions.	a **b** ? DISTRACTOR
2	a. Julie va au Nouveau Brunswick en programme d'échange. Elle parle français mais elle voudrait apprendre quelques expressions acadiennes avant de partir. Elle demande à une amie : Est-ce qu'il y a un étudiant à notre université qui sache parler acadien? b. Julie va au Nouveau Brunswick en programme d'échange. Elle a entendu parler de Philippe, un étudiant acadien qui étudie actuellement à son université et voudrait lui poser quelques questions avant de partir. Elle demande à une amie : Est-ce qu'il y a un étudiant à notre université qui sache parler acadien?	**a** b ? SUB3

3	a. Un de mes collègues cherche un rapport sur la pollution de l'air mais il ne peut pas en trouver un qui l'intéresse. Je lui dis : Je n'ai pas le rapport qui décrit ce type de pollution. b. Un de mes collègues cherche le rapport sur la pollution de l'air qu'il a égaré. Il pense qu'il l'a laissé sur mon bureau quand il m'a posé une question ce matin. Je jette un coup d'œil sur mon bureau et je dis : Je n'ai pas le rapport qui décrit ce type de pollution.	a **b** ? IND2
4	a. Pénélope a pris sa première leçon de musique hier. Sa voisine demande de quel instrument elle a joué. Elle dit : J'ai joué du piano. b. La voisine de Pénélope veut savoir si elle joue de la guitare. Pénélope répond qu'elle ne joue pas de guitare, mais quand elle était jeune: J'ai joué du piano.	**a** b ? DISTRACTOR
5	a. Un ami de Paul lui demande où il a passé ses vacances. Paul répond : Je suis allé à Paris. b. Un ami de Paul lui demande où il passait ses vacances quand il était petit: Je suis allé à Paris.	**a** b ? DISTRACTOR
6	a. Diane est à la bibliothèque depuis trois heures à chercher quelques articles qui décrivent un nouveau traitement expérimental pour aider l'asthme. Elle parle avec un camarade de classe : Je cherche les articles qui peuvent aider mon asthme. b. La mère de Diane lui a parlé de quelques articles publiés sur Internet qui décrivent un nouveau traitement expérimental pour aider l'asthme. Diane ne les a pas encore trouvés. Elle dit: Je cherche les articles qui peuvent aider mon asthme.	a **b** ? IND1

7	a. La grand-mère de Julie est très contente parce qu'elle a soupé avec une bonne amie hier soir. Julie veut savoir ce que sa grand-mère a décidé de porter pour ce repas, et sa grand-mère répond: Je me mettais une robe. b. Julie n'est pas religieuse, et elle n'est pas très familière avec le catholicisme. Elle sait que sa grand-mère allait à la messe et lui demande ce qu'elle portait. Sa grand-mère répond : Je me mettais une robe.	a **b** ? DISTRACTOR
8	a. Miranda interroge son amie qui est la directrice du département de communication d'une compagnie internationale pour savoir si elle sait où se trouve l'agence de traduction qui s'appelle Bilinguisme, mais elle dit : Je ne connais pas d'agence qui fasse de la traduction. b. Miranda cherche une agence de traduction, mais elle n'est pas sûre si le village de Point Edward en a une. Elle pose sa question à une femme dans la rue, mais elle dit: Je ne connais pas d'agence qui fasse de la traduction.	a **b** ? SUB2
9	a. Christine réussit toujours à acheter de belles chaussures. Son amie Kirstin, par contre, ne trouve jamais quelque chose qui lui plaise. Kirstin dit à Christine: Où est-ce que tu trouves des chaussures qui soient à la dernière mode? b. Kirstin vient d'immigrer dans un nouveau pays où la mode est différente. Elle aimerait acheter de nouvelles chaussures pour porter à son nouveau emploi alors elle demande à une de ses collègues : Où est-ce que tu trouves des chaussures qui soient à la dernière mode?	a **b** ? SUB3
10	a. Sophie suit un régime parce qu'elle sait qu'elle mangeait trop de desserts. Elle explique à sa cousine : J'ai mangé beaucoup de tartes. b. Sophie refuse de manger le dessert que sa cousine a préparé. Elle explique que le jour avant: J'ai mangé beaucoup de tartes.	a **b** ? DISTRACTOR

11	a. Philippe est très désorganisé. Ce matin il fouille dans ses affaires pour trouver sa seule chemise propre. Il dit à sa femme: Je ne trouve pas de chemise qui soit propre. b. Philippe a besoin d'une chemise propre pour porter au travail. Il se plaint à sa femme: Je ne trouve pas de chemise qui soit propre.	a **b** ? SUB2
12	c. Xavier vient d'acheter une maison de l'époque victorienne. Il veut trouver des meubles de la même époque, et il a entendu dire qu'il y en a un au centre ville. Il demande à ses voisins : Est-ce que vous connaissez un magasin de meubles qui vende des meubles anciens? d. Xavier vient d'acheter une maison de l'époque victorienne. Il veut trouver des meubles de la même époque, mais la majorité des magasins dans son quartier semblent ne vendre que des meubles modernes. Il demande à ses voisins : Est-ce que vous connaissez un magasin de meubles qui vende des meubles anciens?	a **b** ? SUB3
13	a. C'est le début de l'année scolaire et une étudiante va à la librairie pour acheter ses manuels scolaires. Le manuel pour son cours de biologie est épuisé et elle doit donc le commander. Elle dit au vendeur : J'ai besoin aussi du livre que mon professeur de biologie voit comme très utile. b. Le professeur de biologie d'une étudiante recommande plusieurs livres pour son cours de biologie mais elle a seulement assez d'argent pour en acheter un. Elle dit au vendeur : J'ai besoin aussi du livre que mon professeur de biologie voit comme très utile.	**a** b ? IND1
14	a. Serge a essayé de téléphoner à sa copine plusieurs fois, mais elle n'a pas répondu. Il veut savoir ce qu'elle était en train de faire et elle explique: Je me baignais. b. Serge veut savoir ce que sa copine a fait après qu'elle avoir regardé un film à la télévision. Elle dit : Je me baignais.	**a** b ? DISTRACTOR

15	a. C'est l'anniversaire de Marie. Ses amies ne savent pas ce qu'elle veut et décident d'interroger son copain. Marie lui a montré une publicité pour un parfum dans le magazine de mode *Vogue*, donc il dit: Marie veut un parfum qui apparaît dans le magazine de mode *Vogue*. b. C'est l'anniversaire de Marie. Ses amies ne savent pas ce qu'elle veut et décident d'interroger son copain. Il n'a aucune idée non plus, mais il sait que Marie achète seulement les produits dont on fait la publicité dans les magazines. Il dit aux amies de Marie : Marie veut un parfum qui apparaît dans le magazine de mode *Vogue*.	**a** b ? IND1
16	a. Olga cherche un emploi d'été sur Internet. Elle cherche l'emploi avec prestations dont son conseiller d'orientation lui a parlé. Quand sa mère lui demande si elle fait des progrès, Olga répond : Je ne vois pas d'emploi qui me convienne. b. Olga cherche un emploi d'été sur Internet. Elle a visité tous les sites sur sa liste sans succès. Quand sa mère lui demande si elle fait des progrès, Olga répond : Je ne vois pas d'emploi qui me convienne.	a **b** ? SUB2
17	a. Monika est une Polonaise qui habite à London. Elle veut acheter une poupée qui parle polonais pour que sa fille puisse maintenir sa langue maternelle. Elle demande à un professeur polonais : Est-ce que vous avez vu la poupée qui dit des mots en polonais ? b. Monika a donné une poupée qui parle polonais à sa fille pour Noël. La petite fille l'a amenée à l'école pour la montrer à ses amis et elle l'a laissée dans le coffre à jouets parmi les autres poupées. Monika demande au professeur : Est-ce que vous avez vu la poupée qui dit des mots en polonais ?	a **b** ? IND 3
18	a. Joséphine va aller à la pêche avec son mari en Alaska. Elle n'est pas familière avec l'Alaska donc elle utilise l'Internet pour se renseigner. Elle aime nager. Elle dit à son mari: Je veux être à un hôtel qui ait une piscine. b. Joséphine va aller à la pêche avec son mari en Alaska. Elle aime nager. Elle voit seulement un hôtel en ligne, Le Mirage, qui a une piscine. Elle dit à son mari : Je veux être à un hôtel qui ait une piscine.	**a** b ? SUB1

19	a. Mes soeurs veulent apprendre le quechua avant de partir pour nos vacances au Pérou. J'étudie en linguistique donc elles me disent: Est-ce que vous connaissez le professeur qui sait parler quechua ? b. Il y a des professeurs dans notre département qui parlent plusieurs langues. Le professeur Ramos parle quechua, et il y a toujours des étudiants qui me posent des questions sur lui. Ils disent : Est-ce que vous connaissez le professeur qui sait parler quechua ?	a **b** ? IND3
20	a. Charles est un fan de l'actrice Marylin Monroe. Il entre dans un magasin qui vend des calendriers de célébrités. Après avoir regardé tous les calendriers, il s'approche d'un vendeur pour se plaindre: Je ne vois pas le calendrier qui a des photos de Marylin Monroe. b. Charles est un fan de l'actrice Marylin Monroe. Il entre dans un magasin qui vend des calendriers de célébrités. Il a vu un calendrier de Marilyn Monroe la dernière fois qu'il est passé devant le magasin. Il dit : Je ne vois pas le calendrier qui a des photos de Marylin Monroe.	a **b** ? IND2
21	a. Tracy dit qu'elle va acheter une ceinture. Sa soeur demande pourquoi elle ne porte pas la ceinture qui va bien avec son T-shirt rouge. Une de ses amies a emprunté la ceinture donc elle explique : Je n'ai pas la ceinture qui va bien avec mon T-shirt rouge. b. Tracy dit qu'elle va acheter une ceinture pour accentuer son T-shirt rouge. Sa soeur demande pourquoi elle ne porte pas une des nombreuses ceintures qu'elle a déjà. Tracy dit : Je n'ai pas la ceinture qui va bien avec mon T-shirt rouge.	**a** b ? IND2
22	a. Hélène doit passer un entretien important, mais elle ne peut pas trouver de chemisier approprié. Elle demande à sa soeur : Est-ce que tu as le chemisier qui va bien avec cette jupe? b. Hélène doit passer un entretien important, mais elle ne peut pas trouver de chemisier approprié. Sa sœur a le chemisier parfait, et donc elle lui demande : Est-ce que tu as le chemisier qui va bien avec cette jupe?	a **b** ? IND3

23	a. Alma ne comprend pas du tout la statistique, mais ce sujet l'intéresse énormément. Son frère lui a donné le titre d'un manuel pour les débutants. Alma va à la librairie et dit au vendeur : J'ai besoin d'un livre qui contienne une explication simple de la statistique. b. Alma ne comprend pas du tout la statistique, mais ce sujet l'intéresse énormément. Elle va à une librairie pour trouver de l'aide: J'ai besoin d'un livre qui contienne une explication simple de la statistique.	a **b** ? SUB1
24	a. C'est la première fois qu'Audrey visite Ottawa et elle ne peut pas trouver de restaurant végétarien parmi tous les restaurants qu'elle a vus. Un homme offre de l'aider et elle dit: Je cherche un restaurant qui ne serve pas de viande. b. C'est la première fois qu'Audrey visite Ottawa et elle est censée rencontrer une amie au Commensal, le seul restaurant végétarien dans la ville. Un homme offre de l'aider et elle dit: Je cherche un restaurant qui ne serve pas de viande.	**a** b ? SUB1

Appendix G: Perfil Lingüistico

A. Información personal
1. SEXO: ____Masculino ____Femenino

2. EDAD: ____18-19 ____20-29 ____30-39 ____40-49 ____50-59 ____60+

3. NIVEL MÁS ALTO DE EDUCACIÓN:

Si su respuesta fue "universidad", por favor responda las siguientes preguntas que correspondan. Si su respuesta fue diferente, por favor prosiga al siguiente conjunto de preguntas:
a. Por favor especifique qué estudio en la licenciatura:

b. Si concluyó estudios de posgrado (maestría o doctorado), por favor especifique en qué área:

c. Especifique si asistió a una escuela profesional (por ejemplo: Teacher's College, Medical School, etc.):

4. SU OCUPACIÓN:

5. ¿DÓNDE NACIÓ? (ciudad, provincia, país):

6. ¿DÓNDE RESIDE ACTUALMENTE?:

7. ¿ DÓNDE VIVÍA CUANDO TENÍA ENTRE 8 A 18 AÑOS?:

8. ¿DÓNDE NACIÓ SU PADRE?:

9. ¿A QUÉ SE DEDICA (DEDICABA) SU PADRE?:

10. ¿ DÓNDE NACIÓ SU MADRE?:

11. ¿A QUÉ SE DEDICA (DEDICABA) SU MADRE?:

Appendix H: Prueba de selección de escenario

En esta prueba, usted verá una serie de oraciones producidas por un personaje ficticio, precedida de dos pequeñas historias en las cuales aparece dicho personaje. Por cada oración producida, usted debe indicar cuál de las dos historias es más apropiada. Si los dos escenarios le parecen apropiados, por favor simplemente indique cuál de los dos escenarios le suena mejor a usted.

Si no sabe la respuesta, seleccione el signo de interrogación "?". Por favor trate de evitar esta opción tanto como pueda.

Provea sus respuestas tan pronto como pueda. Una vez que de su respuesta, no vuelva a cambiarla.

1	a. Olga está buscando en Internet un trabajo para el verano que su consejero le dijo que ofrecía prestaciones. Cuando su madre le pregunta cómo va su búsqueda, Olga contesta: No veo ningún empleo que me convenga. b. Olga está buscando en Internet por un trabajo para el verano, pero no puede encontrar ninguno que le guste. Cuando su mamá le pregunta cómo va la búsqueda, Olga contesta: No veo ningún empleo que me convenga.	a **b** ? SUB2
2	a. Penelope tomó su primera lección de música. Su vecino le preguntó qué hizo: Toqué el piano. b. El vecino de Penelope le pregunta si toca la guitarra. Penelope le contesta que ella no toca la guitarra pero que cuando era niña: Toqué el piano.	**a** b ? DISTRACTOR
3	a. Miranda le pregunta a su amiga que trabaja para una compañía internacional si sabe dónde queda la agencia de traducción "Bilingüismo". Dice: No conozco ninguna agencia que traduzca documentos. b. Miranda está buscando una agencia de traducción, pero no está segura si en Point Edward hay una. Le pregunta a su amiga, y la amiga contesta: No conozco ninguna agencia que traduzca documentos.	a **b** ? SUB2

4	a. El amigo de Paul le pregunta donde solía ir de vacaciones cuando era niño. Paul dice: Fui a Paris. b. El amigo de Paul le pregunta dónde pasó sus vacaciones el verano pasado. Paul le dice: Fui a Paris.	**a** b ? DISTRACTOR
5	a. Carlos es fanático de Marilyn Monroe. Un día decide ir a la tienda que vende calendarios de artistas famosos. Después de buscar entre todos los calendarios se acerca al vendedor para quejarse, le dice: No veo el calendario que muestra a Marilyn Monroe. b. Carlos es fanático de Marilyn Monroe. Una vez pasó por una tienda y vio un calendario de Marilyn Monroe. Cierto día decide ir a la tienda y comprarlo. Al llegar a la tienda dice: No veo el calendario que muestra a Marilyn Monroe.	a **b** ? IND2
6	a. Julia va a ir a Turquía como estudiante de intercambio pero no habla turco y necesita que alguien le enseñe. Ella ha escuchado que hay una chica de Turquía estudiando en su misma universidad. Julia le pregunta a su amiga: ¿Sabes de algún estudiante de nuestra universidad que hable turco? b. Julia va a ir a Turquía como estudiante de intercambio pero no habla turco y necesita que alguien le enseñe. Julia le pregunta a su amiga: ¿Sabes de algún estudiante de nuestra universidad que hable turco?	a **b** ? SUB3
7	a. Julie no es muy religiosa, y no sabe mucho acerca del catolicismo. Ella le pregunta a su abuela qué solía vestir cuando iba a misa. Su abuela dice: Me ponía un vestido. b. La abuela de Julie está muy feliz porque se reunió para cenar con su amiga la noche pasada. Julie quiere saber que vistió su abuela para ir al restaurante. La abuela dice: Me ponía un vestido.	**a** b ? DISTRACTOR

8	a. La mamá de Diane le dijo que buscara dos artículos publicados en Internet que describen un nuevo tratamiento experimental para combatir el asma. Diana no los ha podido encontrar todavía. Cuando vuelve a ver a su madre le dice: Estoy buscando los artículos que tratan sobre este nuevo tratamiento experimental para el asma. b. Diane ha estado tres horas en la biblioteca buscando unos artículos acerca de un nuevo tratamiento experimental para combatir el asma. Cuando su compañera le pregunta qué hace, Diane le responde: Estoy buscando los artículos que tratan sobre este nuevo tratamiento experimental para el asma.	**a** b ? IND1
9	a. Kirstin se mudó a un país donde la moda es diferente. A ella le gustaría comprar unos zapatos de moda para llevarse a su nuevo empleo, así que le pregunta a su colega Christine: ¿Dónde encuentras zapatos que estén de moda? b. Christine siempre se las ingenia para comprar zapatos de moda. Su amiga Kirstin, por otro lado, nunca encuentra lo que quiere. Kirstin le dice a Christine: ¿Dónde encuentras zapatos que estén de moda?	**a** b ? SUB3
10	a. Sophie se niega a comer el postre que hizo su prima. Ella le explica que ayer: Comí muchas tartas. b. Todo el mundo sabe que a Sophie le encantan los postres. Sin embargo, ese día comió muy poco. Sophie le comenta a su prima que se puso a dieta porque antes: Comí muchas tartas.	**a** b ? DISTRACTOR
11	a. Uno de mis colegas está buscando un informe acerca de la contaminación del medio ambiente pero no puede encontrar uno que le interese. Le digo: No tengo el informe que habla sobre la contaminación del aire. b. Uno de mis colegas está buscando un informe acerca de la contaminación del medio ambiente porque no se acuerda donde lo dejó. Él piensa que está en mi oficina. Cuando me preguntó esta mañana, revisé mi escritorio y le dije: No tengo el informe que habla sobre la contaminación del aire.	a **b** ? IND2

12	a. Serge quiere saber qué hizo su novia cuando regresó del cine. Ella contesta: Me bañaba. b. Serge intentó llamar a su novia varias veces, pero ella nunca contestó el teléfono. Él le pregunta que qué estaba haciendo y ella contesta: Me bañaba.	a **b** ? DISTRACTOR
13	a. Es el inicio del año escolar y un estudiante va a la librería a comprar sus libros de texto. Los libros de bilogía se terminaron, así que necesita ordenarlos en la librería. Le dice al vendedor: Necesito el libro que recomienda el profesor de biología. b. El profesor de bilogía le recomienda a un estudiante una serie de libros de biología para su clase, pero como sólo tiene dinero para comprar uno, le dice al vendedor: Necesito el libro que recomienda el profesor de biología.	**a** b ? IND1
14	a. Monika es una polaca que actualmente vive en London. Ella quiere comprarle a su hija una muñeca que hable polaco para que no olvide su lengua de origen. Monika le pregunta a su amiga polaca: ¿Has visto la muñeca que dice palabras en polaco? b. Monika le dio a su hija una muñeca que habla polaco como regalo de Navidad. La niña la llevó a su escuela para mostrársela a sus amiguitas pero la olvidó en la caja de los juguetes, donde se mezcló con las demás muñecas de las otras niñas. Monika le pregunta a la profesora: ¿Has visto la muñeca que dice palabras en polaco?	a **b** ? IND3
15	a. Mi esposo y yo fuimos a la playa el martes pasado. Nuestros amigos nos preguntaron qué hicimos. Nosotros contestamos: Nadábamos juntos. b. Mi esposo y yo éramos muy atléticos en nuestra juventud. Nuestros amigos nos preguntaron qué deportes practicábamos. Nosotros contestamos: Nadábamos juntos.	a **b** ? DISTRACTOR

16	a. Felipe es muy desorganizado. Esta mañana estuvo buscando la única camisa limpia que tiene para el trabajo. Le dice a su esposa: No encuentro una camisa que esté limpia. b. Felipe necesita una camisa limpia para irse a trabajar. Le dice a su esposa: No encuentro una camisa que esté limpia.	a **b** ? SUB2
17	a. Javier se compró una casa que fue construida en el siglo XVIII. Ahora sólo quiere comprar muebles que combinen con la arquitectura de la casa y ha escuchado hablar sobre una tienda que queda en el centro que vende muebles exclusivamente de este siglo. Le pregunta a su amigo: ¿Conoces una mueblería que venda muebles antiguos? b. Javier se compró una casa que fue construida en el siglo XVIII. Ahora sólo quiere comprar muebles que combinen con la arquitectura de la casa, pero la mayoría de las tiendas solo tienen muebles modernos. Le pregunta a su amigo: ¿Conoces una mueblería que venda muebles antiguos?	a **b** ? SUB3
18	a. Alma no entiende nada de estadística, pero le interesa mucho el tema. Va a la librería y el vendedor le pregunta si necesita ayuda. Ella dice: Necesito un libro que explique estadística de manera fácil. b. Alma no entiende nada de estadística, pero le interesa mucho el tema. Su hermano le dio el nombre de un libro para principiantes. Alma va a la librería y le dice al vendedor: Necesito un libro que explique estadística de manera fácil.	**a** b ? SUB1
19	a. Era la primera vez que Audrey visitaba Ottawa y se tenía que encontrar con una amiga en el restaurante "Le Commensal", el único restaurante vegetariano de la ciudad. Un hombre le pregunta si necesita ayuda. Ella contesta : Busco un restaurante que no sirva carne. b. Era la primera vez que Audrey visitaba Ottawa y estaba agobiada porque no encontraba un restaurante vegetariano. Un hombre le pregunta si necesita ayuda. Audrey le dice : Busco un restaurante que no sirva carne.	a **b** ? SUB1

20	a. Es el cumpleaños de Marie. Sus amigos no saben qué darle de regalo, así que le preguntan a su novio. Él recuerda que una vez Marie vio un perfume en la revista de moda *Vogue* que le gustó, así que contesta: Marie quiere el perfume que se anuncia en la revista de moda *Vogue*. b. Es el cumpleaños de Marie. Sus amigos no saben qué darle de regalo, así que le preguntan a su novio, pero él no tiene ni idea de qué darle. Sin embargo, recuerda que Marie compra solamente los productos que salen en las revistas. Dice: Marie quiere el perfume que se anuncia en la revista de moda *Vogue*.	**a** b ? IND1
21	a. Hay varios profesores que hablan muchas lenguas en mi universidad. El profesor Ramos habla quechua y la gente siempre me pregunta acerca de él. Me dicen: ¿Conoce al profesor que habla quechua? b. Mis vecinos están interesados en aprender quechua antes de irse de vacaciones a Perú. Como yo estoy estudiando Lingüística, me preguntan: ¿Conoce al profesor que habla quechua?	**a** b ? IND3
22	a. Josephine va a acompañar a su esposo a pescar a Alaska. A ella le encanta nadar y conoce un hotel con piscina llamado "Mirage". Le dice a su esposo: Quiero quedarme en un hotel que tenga piscina. b. Josephine va a acompañar a su esposo a pescar a Alaska. Ya que no conoce ese país, busca información en Internet. A ella le encanta nadar. Le dice a su esposo: Quiero quedarme en un hotel que tenga piscina.	a **b** ? SUB1
23	a. Elena tiene una entrevista de trabajo muy importante, pero no puede encontrar una blusa apropiada para la ocasión. Su hermana tiene la blusa perfecta para su entrevista. Elena le dice: ¿Tienes la blusa que hace juego con mi falda? b. Elena tiene una entrevista de trabajo muy importante, pero no puede encontrar una blusa apropiada para la ocasión. Elena le pregunta a su compañera de cuarto: ¿Tienes la blusa que hace juego con mi falda?	**a** b ? IND3

24	a. Tracy dice que va a salir a comprar un cinturón. Su hermana le pregunta por qué no se pone uno que combina con su blusa roja. Ya que una de las amigas de Tracy lo tomó prestado, ella explica: No tengo el cinturón que combina con el rojo de mi camiseta. b. Tracy dice que va a salir a comprar un cinturón que resalte su blusa roja. Su hermana le pregunta por qué no se pone uno de los cinturones rojos que tiene en su cuarto. Tracy dice: No tengo el cinturón que combina con el rojo de mi camiseta.	**a** b ? IND2

Appendix I: French and/or Spanish as Second Language Questionnaire

	Second Languages (Specify)	
	A.	**B.**
At what age did you begin to learn your 2nd language?		
At what age did you first use it to communicate?		
Where did you learn your 2nd language?		
Did you learn this language as a subject or was it the principal medium of instruction?	Subject Medium of instruction	Subject Medium of instruction
Have you ever spent time in an area where this language was the native language?	Where? How long?	Where? How long?
Where do you use this language?	☐ School ☐ Work ☐ Home ☐ Social Situations	☐ School ☐ Work ☐ Home ☐ Social Situations
Approximately how many hours week do you speak this language?		
Are you currently taking a course in this language? If so, where? If not, when and where did you last take a course in this language? Please indicate the course level.		

CONTINUED ON NEXT PAGE

Please rate your linguistic ability in each of the languages you speak.

	Beginner	**Intermediate**	**Advanced**	**Native or native-like**
Reading				
English				
French				
Spanish				
Other Specify:				
Writing				
English				
French				
Spanish				
Other Specify:				
Speaking				
English				
French				
Spanish				
Other Specify:				
Listening				
English				
French				
Spanish				
Other Specify:				
Overall competence				
English				
French				
Spanish				
Other Specify:				

Appendix J: Tables

Table 86: Mean Scores for French and Spanish Native Speakers: Language Spoken.

Mood Category	Language Spoken	N	Mean	Std. Dev.
Sub1	**Native French Speaker**	43	87.2	19.5
	Native Spanish Speaker	22	92.4	20.4
	Total	65	89.0	19.8
Sub2	**Native French Speaker**	43	77.9	23.8
	Native Spanish Speaker	22	75.8	17.6
	Total	65	77.2	21.8
Sub3	**Native French Speaker**	43	79.8	20.4
	Native Spanish Speaker	22	81.8	16.2
	Total	65	80.5	19.0
Ind1	**Native French Speaker**	43	61.2	27.6
	Native Spanish Speaker	22	75.0	21.7
	Total	65	65.9	26.4
Ind2	**Native French Speaker**	43	80.6	23.0
	Native Spanish Speaker	22	78.0	25.9
	Total	65	79.7	23.8
Ind3	**Native French Speaker**	43	86.8	20.4
	Native Spanish Speaker	22	75.0	29.4
	Total	65	82.8	24.3
SubAll	**Native French Speaker**	43	81.7	21.5
	Native Spanish Speaker	22	83.3	19.2
	Total	65	82.2	20.7
IndAll	**Native French Speaker**	43	76.2	26.1
	Native Spanish Speaker	22	76.0	25.5
	Total	65	76.2	25.8
All parameters	**Native French Speaker**	43	78.9	24.0
	Native Spanish Speaker	22	79.7	22.8
	Total	65	79.2	23.6

Table 87: Mean Scores for French Native Speakers: No Demographic Divisions.

Mood Category	N	Mean	Std. Dev.
Sub1	43	87.2	19.5
Sub2	43	77.9	23.8
Sub3	43	79.8	20.4
Ind1	43	61.2	27.6
Ind2	43	80.6	23.0
Ind3	43	86.8	20.4
SubAll	43	81.7	21.5
IndAll	43	76.2	26.1
All parameters	43	78.9	24.0

Table 88: Mean Scores for French Native Speakers: Sex.

Mood Category	Sex	N	Mean	Std. Dev.
Sub1	**Male**	18	86.1	20.0
	Female	25	88.0	19.6
	Total	43	87.2	19.5
Sub2	**Male**	18	80.6	22.3
	Female	25	76.0	25.0
	Total	43	77.9	23.7
Sub3	**Male**	18	82.4	21.0
	Female	25	78.0	20.3
	Total	43	79.8	20.4
Ind1	**Male**	18	62.9	31.1
	Female	25	60.0	25.5
	Total	43	61.2	27.6
Ind2	**Male**	18	75.0	25.7
	Female	25	84.7	20.4
	Total	43	80.6	23.0
Ind3	**Male**	18	85.2	22.8
	Female	25	88.0	19.0
	Total	43	86.8	20.4
SubAll	**Male**	18	83.0	12.4
	Female	25	80.7	11.9
	Total	43	81.7	12.0
IndAll	**Male**	18	74.4	20.4
	Female	25	77.6	14.1
	Total	43	76.2	16.9
All parameters	**Male**	18	78.7	24.9
	Female	25	79.1	23.5
	Total	43	78.9	24.0

Table 89: ANOVA for French Native Speakers: Sex.

Mood Category	Significance
Sub1	.759
Sub2	.542
Sub3	.492
Ind1	.733
Ind2	.177
Ind3	.661
SubAll	.533
IndAll	.549
All parameters	.602

Table 90: Mean Scores for French Native Speakers: Age.

Mood Category	Age Group	N	Mean	Std. Dev.
Sub1	**18-29**	29	87.4	20.2
	30-39	9	87.0	20.0
	40+	5	86.7	18.3
	Total	43	87.2	19.5
Sub2	**18-19**	29	82.2	23.1
	30-39	9	70.4	24.7
	40+	5	66.7	23.6
	Total	43	77.9	23.8
Sub3	**18-19**	29	82.8	17.0
	30-39	9	66.7	27.6
	40+	5	86.7	18.3
	Total	43	79.8	20.4
Ind1	**18-19**	29	61.5	30.9
	30-39	9	59.3	22.2
	40+	5	63.3	18.3
	Total	43	61.2	27.6
Ind2	**18-19**	29	85.1	21.1
	30-39	9	74.1	26.5
	40+	5	66.7	23.6
	Total	43	80.6	23.0
Ind3	**18-19**	29	82.8	22.9
	30-39	9	94.4	11.8
	40+	5	96.7	7.5
	Total	43	86.8	20.4
SubAll	**18-19**	29	84.1	11.1
	30-39	9	74.7	12.1
	40+	5	80.0	14.5
	Total	43	81.7	12.0
IndAll	**18-19**	29	76.4	18.2
	30-39	9	75.9	16.0
	40+	5	75.6	12.2
	Total	43	76.2	16.9
All parameters	**18-29**	29	80.3	24.2
	30-39	9	75.3	24.8
	40+	5	77.8	21.6
	Total	43	78.9	24.0

Table 91: Mean Scores for French Native Speakers: Highest Level of Studies.

Mood Category	Level of Studies	N	Mean	Std. Dev.
Sub1	**High School**	9	81.5	24.2
	Undergraduate	10	86.7	23.3
	Grad School	24	89.6	16.2
	Total	43	87.2	19.5
Sub2	**High School**	9	66.7	23.6
	Undergraduate	10	85.0	25.4
	Grad School	24	79.2	22.7
	Total	43	77.9	23.8
Sub3	**High School**	9	79.6	23.2
	Undergraduate	10	78.3	19.3
	Grad School	24	80.6	20.7
	Total	43	79.8	20.4
Ind1	**High School**	9	53.7	35.1
	Undergraduate	10	66.7	22.2
	Grad School	24	61.8	27.1
	Total	43	61.2	27.6
Ind2	**High School**	9	77.8	23.6
	Undergraduate	10	83.3	23.6
	Grad School	24	80.6	23.4
	Total	43	80.6	23.0
Ind3	**High School**	9	85.2	17.6
	Undergraduate	10	90.0	22.5
	Grad School	24	86.1	21.2
	Total	43	86.8	20.4
SubAll	**High School**	9	75.9	8.7
	Undergraduate	10	83.3	12.8
	Grad School	24	83.1	12.5
	Total	43	81.7	12.0
IndAll	**High School**	9	72.2	16.7
	Undergraduate	10	80.0	14.6
	Grad School	24	76.2	18.1
	Total	43	76.2	16.9
All parameters	**High School**	9	74.1	26.2
	Undergraduate	10	81.7	23.1
	Graduate	24	79.6	23.4
	Total	43	78.9	24.0

Table 92: Mean Scores for French Native Speakers: Occupation.

Mood Category	Occupation	N	Mean	Std. Dev.
Sub1	**Student**	20	90.0	14.7
	Does not require a professional degree	3	100.0	0.0
	Requires a professional degree	20	82.5	23.9
	Total	43	87.2	19.5
Sub2	**Student**	20	78.3	26.5
	Does not require a professional degree	3	77.8	19.2
	Requires a professional degree	20	77.5	22.5
	Total	43	77.9	23.8
Sub3	**Student**	20	79.2	19.4
	Does not require a professional degree	3	88.9	19.2
	Requires a professional degree	20	79.2	22.2
	Total	43	79.8	20.4
Ind1	**Student**	20	66.7	22.9
	Does not require a professional degree	3	77.8	19.2
	Requires a professional degree	20	53.3	31.3
	Total	43	61.2	27.6
Ind2	**Student**	20	85.8	21.1
	Does not require a professional degree	3	77.8	19.2
	Requires a professional degree	20	75.8	25.1
	Total	43	80.6	23.0
Ind3	**Student**	20	92.5	13.8
	Does not require a professional degree	3	100.0	-
	Requires a professional degree	20	79.2	24.7
	Total	43	86.8	20.4
SubAll	**Student**	20	82.5	11.0
	Does not require a professional degree	3	88.9	11.1
	Requires a professional degree	20	79.7	13.2
	Total	43	81.7	12.0
IndAll	**Student**	20	81.7	15.0
	Does not require a professional degree	3	85.2	12.8
	Requires a professional degree	20	69.4	17.1
	Total	43	76.2	16.9
All parameters	**Student**	20	82.1	21.6
	Does not require a professional degree	3	87.0	16.7
	Requires a professional degree	20	74.6	26.5
	Total	43	78.9	24.0

Table 93: Mean Scores for French Native Speakers: Place of Residence from Ages 8-18.

Mood Category	Residence 8-18	N	Mean	Std. Dev.
Sub1	**Ontario**	7	76.2	31.7
	Quebec	11	81.8	18.9
	Acadia	7	92.9	13.1
	French Europe	14	95.2	12.1
	Africa	4	83.3	19.2
	Total	43	87.2	19.5
Sub2	**Ontario**	7	85.7	26.2
	Quebec	11	80.3	24.5
	Acadia	7	69.0	27.9
	French Europe	14	79.8	19.8
	Africa	4	66.7	27.2
	Total	43	77.9	23.8
Sub3	**Ontario**	7	81.0	20.2
	Quebec	11	86.4	19.5
	Acadia	7	76.2	25.2
	French Europe	14	82.1	17.9
	Africa	4	58.3	16.7
	Total	43	79.8	20.4
Ind1	**Ontario**	7	57.1	41.8
	Quebec	11	74.2	18.8
	Acadia	7	61.9	23.0
	French Europe	14	54.8	27.3
	Africa	4	54.2	28.5
	Total	43	61.2	27.6
Ind2	**Ontario**	7	81.0	26.2
	Quebec	11	83.3	24.7
	Acadia	7	81.0	26.2
	French Europe	14	85.7	17.1
	Africa	4	54.2	16.0
	Total	43	80.6	23.0
Ind3	**Ontario**	7	76.2	25.2
	Quebec	11	93.9	13.5
	Acadia	7	95.2	12.6
	French Europe	14	81.0	25.2
	Africa	4	91.7	9.6
	Total	43	86.8	20.4
SubAll	**Ontario**	7	81.0	14.3
	Quebec	11	82.8	13.3
	Acadia	7	79.4	13.1
	French Europe	14	85.7	9.2
	Africa	4	69.4	5.6
	Total	43	81.7	12.0

Mood Category	Residence 8-18	N	Mean	Std. Dev.
IndAll	**Ontario**	7	71.4	23.9
	Quebec	11	83.8	14.6
	Acadia	7	79.4	14.9
	French Europe	14	73.8	15.6
	Africa	4	66.7	13.6
	Total	43	76.2	16.9
All parameters	**Ontario**	7	76.2	29.0
	Quebec	11	83.3	20.5
	Acadia	7	79.4	24.1
	French Europe	14	79.8	23.4
	Africa	4	68.1	23.5
	Total	43	78.9	24.0

Table 94: Mean Scores for Spanish Native Speakers: No Demographic Divisions.

Mood Category	N	Mean	Std. Dev.
Sub1	22	92.4	20.4
Sub2	22	75.8	17.6
Sub3	22	81.8	16.2
Ind1	22	75.0	21.7
Ind2	22	78.0	25.9
Ind3	22	75.0	29.4
SubAll	22	83.3	19.2
IndAll	22	76.0	25.5
All parameters	22	79.7	22.8

Table 95: Mean Scores for Spanish Native Speakers: Sex.

Mood Category	Sex	N	Mean	Std. Dev.
Sub1	**Male**	10	90.0	22.5
	Female	12	94.4	19.2
	Total	22	92.4	20.4
Sub2	**Male**	10	71.7	15.8
	Female	12	79.2	19.0
	Total	22	75.8	17.6
Sub3	**Male**	10	75.0	14.2
	Female	12	87.5	16.1
	Total	22	81.8	16.2
Ind1	**Male**	10	75.0	21.2
	Female	12	75.0	23.0
	Total	22	75.0	21.7
Ind2	**Male**	10	68.3	31.9
	Female	12	86.1	17.2
	Total	22	78.0	25.9
Ind3	**Male**	10	60.0	31.6
	Female	12	87.5	21.5
	Total	22	75.0	29.4
SubAll	**Male**	10	78.9	13.6
	Female	12	87.0	11.7
	Total	22	83.3	12.9
IndAll	**Male**	10	67.8	24.0
	Female	12	82.9	11.0
	Total	22	76.0	19.2
All parameters	**Male**	10	73.3	24.6
	Female	12	85.0	19.8
	Total	22	79.7	22.8

Table 96: Mean Scores for Spanish Native Speakers: Age.

Mood Category	Age Group	N	Mean	Std. Dev.
Sub1	**18-29**	13	92.3	20.0
	30-39	7	90.5	25.2
	40+	2	100.0	-
	Total	22	92.4	20.4
Sub2	**18-29**	13	78.2	18.5
	30-39	7	73.8	18.9
	40+	2	66.7	-
	Total	22	75.8	17.6
Sub3	**18-29**	13	83.3	16.7
	30-39	7	81.0	17.8
	40+	2	75.0	11.8
	Total	22	81.8	16.2
Ind1	**18-29**	13	73.1	19.9
	30-39	7	83.3	25.5
	40+	2	58.3	11.8
	Total	22	75.0	21.7
Ind2	**18-29**	13	80.8	28.7
	30-39	7	71.4	23.0
	40+	2	83.3	23.6
	Total	22	78.0	25.9
Ind3	**18-29**	13	73.1	27.7
	30-39	7	71.4	35.6
	40+	2	100.0	-
	Total	22	75.0	29.4
SubAll	**18-29**	13	84.6	12.7
	30-39	7	81.7	15.9
	40+	2	80.6	3.9
	Total	22	83.3	12.9
IndAll	**18-29**	13	75.6	19.0
	30-39	7	75.4	23.5
	40+	2	80.6	3.9
	Total	22	76.0	19.2
All parameters	**18-29**	13	80.1	22.6
	30-39	7	78.6	24.5
	40+	2	80.6	18.6
	Total	22	79.7	22.8

Table 97: ANOVA for Spanish Native Speakers: Age.

Mood Category	Significance
Sub1	.856
Sub2	.669
Sub3	.800
Ind1	.329
Ind2	.730
Ind3	.471
SubAll	.862
IndAll	.945
All parameters	.498

Table 98: Mean Scores for Spanish Native Speakers: Highest Level of Studies.

Mood Category	Level of studies	N	Mean	Std. Dev.
Sub1	**High School**	2	100.0	-
	Undergraduate	5	100.0	-
	Graduate School	15	88.9	24.1
	Total	22	92.4	20.4
Sub2	**High School**	2	83.3	23.6
	Undergraduate	5	70.0	18.3
	Graduate School	15	76.7	17.6
	Total	22	75.8	17.6
Sub3	**High School**	2	83.3	23.6
	Undergraduate	5	86.7	18.3
	Graduate School	15	80.0	15.7
	Total	22	81.8	16.2
Ind1	**High School**	2	75.0	11.8
	Undergraduate	5	63.3	29.8
	Graduate School	15	78.9	19.4
	Total	22	75.0	21.7
Ind2	**High School**	2	66.7	47.1
	Undergraduate	5	63.3	29.8
	Graduate School	15	84.4	21.3
	Total	22	78.0	25.9
Ind3	**High School**	2	66.7	47.1
	Undergraduate	5	70.0	29.8
	Graduate School	15	77.8	29.3
	Total	22	75.0	29.4
SubAll	**High School**	2	88.9	15.7
	Undergraduate	5	85.6	10.8
	Graduate School	15	81.9	13.8
	Total	22	83.3	12.9
IndAll	**High School**	2	69.4	35.4
	Undergraduate	5	65.6	18.6
	Graduate School	15	80.4	17.3
	Total	22	76.0	19.2
All parameters	**High School**	2	79.2	25.7
	Undergraduate	5	75.6	25.4
	Graduate	15	81.1	21.5
	Total	22	79.7	22.8

Table 99: ANOVA for Spanish Native Speakers: Highest Level of Studies.

Mood Category	Significance
Sub1	.515
Sub2	.646
Sub3	.740
Ind1	.400
Ind2	.242
Ind3	.818
SubAll	.720
IndAll	.301
All parameters	.250

Table 100: Mean Scores for Spanish Native Speakers: Occupation.

Mood Category	Occupation	N	Mean	Std. Dev.
Sub1	**Student**	17	90.2	22.9
	Does not require a professional degree	2	100.0	-
	Requires a professional degree	3	100.0	-
	Total	22	92.4	20.4
Sub2	**Student**	17	77.5	17.6
	Does not require a professional degree	2	83.3	23.6
	Requires a professional degree	3	61.1	9.6
	Total	22	75.8	17.6
Sub3	**Student**	17	81.4	16.5
	Does not require a professional degree	2	83.3	23.6
	Requires a professional degree	3	83.3	16.7
	Total	22	81.8	16.2
Ind1	**Student**	17	74.5	22.9
	Does not require a professional degree	2	75.0	11.8
	Requires a professional degree	3	77.8	25.5
	Total	22	75.0	21.7
Ind2	**Student**	17	80.4	23.7
	Does not require a professional degree	2	83.3	23.6
	Requires a professional degree	3	61.1	41.9
	Total	22	78.0	25.9
Ind3	**Student**	17	70.6	30.4
	Does not require a professional degree	2	100.0	-
	Requires a professional degree	3	83.3	28.9
	Total	22	75.0	29.4
SubAll	**Student**	17	83.0	13.8
	Does not require a professional degree	2	88.9	15.7
	Requires a professional degree	3	81.5	8.5
	Total	22	83.3	12
IndAll	**Student**	17	75.2	20.1
	Does not require a professional degree	2	86.1	11.8
	Requires a professional degree	3	74.1	21.0
	Total	22	76.0	19.2
All parameters	**Student**	17	79.1	23.1
	Does not require a professional degree	2	87.5	16.1
	Requires a professional degree	3	77.8	24.9
	Total	22	79.7	22.8

Table 101: ANOVA for Spanish Native Speakers: Occupation.

Mood Category	Significance
Sub1	.662
Sub2	.285
Sub3	.975
Ind1	.974
Ind2	.494
Ind3	.374
SubAll	.818
IndAll	.753
All parameters	.648

Table 102: Mean Scores for Spanish Native Speakers: Place of Residence from Ages 8-18.

Mood Category	Residence 8-18	N	Mean	Std. Dev.
Sub1	**Spain**	2	100.0	-
	Argentina/Uruguay	2	100.0	-
	Mexico	8	100.0	-
	Columbia/Venezuela	6	100.0	-
	Peru	4	58.3	31.9
	Total	22	92.4	20.4
Sub2	**Spain**	2	100.0	-
	Argentina/Uruguay	2	100.0	-
	Mexico	8	70.8	11.8
	Columbia/Venezuela	6	75.0	20.4
	Peru	4	62.5	8.3
	Total	22	75.8	17.6
Sub3	**Spain**	2	100.0	-
	Argentina/Uruguay	2	100.0	-
	Mexico	8	79.2	14.7
	Columbia/Venezuela	6	77.8	17.2
	Peru	4	75.0	16.7
	Total	22	81.8	16.2
Ind1	**Spain**	2	91.7	11.8
	Argentina/Uruguay	2	91.7	11.8
	Mexico	8	77.1	17.7
	Columbia/Venezuela	6	61.1	27.2
	Peru	4	75.0	21.5
	Total	22	75.0	21.7
Ind2	**Spain**	2	100.0	-
	Argentina/Uruguay	2	100.0	-
	Mexico	8	79.2	24.8
	Columbia/Venezuela	6	83.3	18.3
Ind2	**Peru**	4	45.8	25.0
	Total	22	78.0	25.9
Ind3	**Spain**	2	100.0	-
	Argentina/Uruguay	2	91.7	11.8
	Mexico	8	83.3	30.9
	Columbia/Venezuela	6	66.7	29.8
	Peru	4	50.0	23.6
	Total	22	75.0	29.4
SubAll	**Spain**	2	100.0	-
	Argentina/Uruguay	2	100.0	-
	Mexico	8	83.3	7.9
	Columbia/Venezuela	6	84.3	10.2
	Peru	4	65.3	7.0
	Total	22	83.3	12.9

Mood Category	Residence 8-18	N	Mean	Std. Dev.
IndAll	**Spain**	2	97.2	3.9
	Argentina/Uruguay	2	94.4	7.9
	Mexico	8	79.9	17.0
	Columbia/Venezuela	6	70.4	16.4
	Peru	4	56.9	17.8
	Total	22	76.0	19.2
All parameters	**Spain**	2	98.6	4.8
	Argentina/Uruguay	2	97.2	6.5
	Mexico	8	81.6	20.4
	Colombia/Venezuela	6	77.3	23.3
	Peru	4	61.1	22.9
	Total	22	79.7	22.8

Table 103: Mean Scores for French and Spanish Students: Language Studied.

Mood Category	Language Studied	N	Mean	Std. Dev.
Sub1	**French student**	23	87.7	18.9
	Spanish student	13	98.7	4.6
	Total	36	91.7	16.2
Sub2	**French student**	23	79.7	26.1
	Spanish student	13	89.7	21.0
	Total	36	83.3	24.6
Sub3	**French student**	23	76.1	21.8
	Spanish student	13	82.0	17.3
	Total	36	78.2	20.2
Ind1	**French student**	23	73.2	21.8
	Spanish student	13	75.6	36.4
	Total	36	74.1	27.4
Ind2	**French student**	23	71.0	33.8
	Spanish student	13	69.2	27.9
	Total	36	70.4	31.4
Ind3	**French student**	23	76.8	32.5
	Spanish student	13	84.6	22.0
	Total	36	79.6	29.0
SubAll	**French student**	23	81.2	22.7
	Spanish student	13	90.2	17.0
	Total	36	84.4	21.2
IndAll	**French student**	23	73.7	29.5
	Spanish student	13	76.5	29.3
	Total	36	74.7	29.3
All parameters	**French student**	23	77.4	26.5
	Spanish student	13	83.3	24.8
	Total	36	79.6	26.0

Table 104: Mean Scores for French Students: No Demographic Divisions.

Mood Category	N	Mean	Std. Dev.
Sub1	23	87.7	18.9
Sub2	23	79.7	26.1
Sub3	23	76.1	21.8
Ind1	23	73.2	21.8
Ind2	23	71.0	33.8
Ind3	23	76.8	32.5
SubAll	23	81.2	22.7
IndAll	23	73.7	29.5
All parameters	23	77.4	26.5

Table 105: ANOVA for French Students: No Demographic Divisions.

Mood Category	Significance
All parameters	.347

Table 106: Mean Scores for French Students: Sex.

Mood Category	Sex	N	Mean	Std. Dev.
Sub1	**Male**	6	77.8	27.2
	Female	17	91.2	14.6
	Total	23	87.7	18.9
Sub2	**Male**	6	72.2	32.8
	Female	17	82.4	23.9
	Total	23	79.7	26.1
Sub3	**Male**	6	77.8	27.2
	Female	17	75.5	20.5
	Total	23	76.1	21.8
Ind1	**Male**	6	83.3	18.3
	Female	17	69.6	22.2
	Total	23	73.2	21.8
Ind2	**Male**	6	66.7	42.2
	Female	17	72.6	31.7
	Total	23	71.0	33.8
Ind3	**Male**	6	66.7	42.2
	Female	17	80.4	29.0
	Total	23	76.8	32.5
SubAll	**Male**	6	75.9	27.6
	Female	17	83.0	15.3
	Total	23	81.2	18.8
IndAll	**Male**	6	72.2	27.9
	Female	17	74.2	20.5
	Total	23	73.7	22.0
All parameters	**Male**	6	74.1	31.0
	Female	17	78.6	24.8
	Total	23	77.4	26.5

Table 107: ANOVA for French Students: Sex.

Mood Category	Significance
Sub1	.140
Sub2	.190
Sub3	.426
Ind1	.723
Ind2	.831
Ind3	.386
SubAll	.440
IndAll	.856
All parameters	.380

Table 108: Mean Scores for French Students: Age.

Mood Category	Age Group	N	Mean	Std. Dev.
Sub1	**18-19**	12	91.7	15.1
	20-29	7	90.5	16.3
	30+	4	70.8	28.5
	Total	23	87.7	18.9
Sub2	**18-19**	12	77.8	25.6
	20-29	7	90.5	25.2
	30+	4	66.7	27.2
	Total	23	79.7	26.1
Sub3	**18-19**	12	72.2	23.9
	20-29	7	85.7	17.8
	30+	4	70.8	21.0
	Total	23	76.1	21.8
Ind1	**18-19**	12	68.1	25.1
	20-29	7	81.0	17.8
	30+	4	75.0	16.7
	Total	23	73.1	21.8
Ind2	**18-19**	12	63.9	33.2
	20-29	7	85.7	26.2
	30+	4	66.7	47.1
	Total	23	71.0	33.8
Ind3	**18-19**	12	66.7	37.6
	20-19	7	90.5	16.3
	30+	4	83.3	33.3
	Total	23	76.8	32.5
SubAll	**18-19**	12	80.6	17.8
	20-19	7	88.9	17.0
	30+	4	69.4	22.9
	Total	23	81.2	18.8
IndAll	**18-19**	12	66.2	24.7
	20-19	7	85.7	12.4
	30+	4	75.0	21.0
	Total	23	73.7	22.0
All parameters	**18-19**	12	73.4	28.3
	20-19	7	87.3	19.4
	30+	4	72.2	27.7
	Total	23	77.4	26.5

Table 109: Mean Scores for French Students: Place of Residence from Ages 8-18.

Mood Category	Residence 8-18	N	Mean	Std. Dev.
Sub1	**Abroad**	4	83.3	33.3
	Canada	19	88.6	15.8
	Total	23	87.7	18.9
Sub2	**Abroad**	4	75.0	31.9
	Canada	19	80.7	25.6
	Total	23	79.7	26.1
Sub3	**Abroad**	4	83.3	19.2
	Canada	19	74.6	22.5
	Total	23	76.1	21.8
Ind1	**Abroad**	4	91.7	16.7
	Canada	19	69.3	21.0
	Total	23	73.2	21.8
Ind2	**Abroad**	4	66.7	47.1
	Canada	19	71.9	31.9
	Total	23	71.0	33.8
Ind3	**Abroad**	4	66.7	38.5
	Canada	19	79.0	31.8
	Total	23	76.8	32.5
SubAll	**Abroad**	4	80.6	24.6
	Canada	19	81.3	18.2
	Total	23	81.2	18.8
IndAll	**Abroad**	4	75.0	24.6
	Canada	19	73.4	22.1
	Total	23	73.7	22.0
All parameters	**Abroad**	4	77.8	30.6
	Canada	19	77.3	25.7
	Total	23	77.4	26.5

Table 110: ANOVA for French Students: Place of Residence from Ages 8-18.

Mood Category	Significance
Sub1	.625
Sub2	.701
Sub3	.477
Ind1	.060
Ind2	.784
Ind3	.504
SubAll	.946
IndAll	.898
All parameters	.942

Table 111: Mean Scores for French Students: Origin of Parents.

Mood Category	Origin of Parents	N	Mean	Std. Dev.
Sub1	**2 Foreign Parents**	7	85.7	26.2
	1 Foreign Parent	5	86.7	18.3
	2 Canadian Parents	11	89.4	15.4
	Total	23	87.7	18.9
Sub2	**Both Canadian**	7	71.4	30.0
	1 Foreign Parent	5	86.7	29.8
	2 Foreign Parents	11	81.8	22.9
	Total	23	79.7	26.1
Sub3	**Both Canadian**	7	81.0	17.8
	1 Foreign Parent	5	80.0	29.8
	2 Foreign Parents	11	71.2	21.2
	Total	23	76.1	21.8
Ind1	**Both Canadian**	7	78.6	24.9
	1 Foreign Parent	5	66.7	23.6
	2 Foreign Parents	11	72.7	20.1
	Total	23	73.2	21.8
Ind2	**Both Canadian**	7	66.7	38.5
	1 Foreign Parent	5	80.0	29.8
	2 Foreign Parents	11	69.7	34.8
	Total	23	71.0	33.8
Ind3	**Both Canadian**	7	71.4	30.0
	1 Foreign Parent	5	73.3	43.5
	2 Foreign Parents	11	81.8	31.1
	Total	23	76.8	32.5
SubAll	**Both Canadian**	7	79.4	21.7
	1 Foreign Parent	5	84.4	21.7
	2 Foreign Parents	11	80.8	17.3
	Total	23	81.2	18.8
IndAll	**Both Canadian**	7	72.2	21.5
	1 Foreign Parent	5	73.3	24.3
	2 Foreign Parents	11	74.7	23.4
	Total	23	73.7	22.0
All parameters	**Both Canadian**	7	75.8	27.6
	1 Foreign Parent	5	78.9	28.3
	2 Foreign Parents	11	77.8	25.2
	Total	23	77.4	26.5

Table 112: ANOVA for French Students: Origin of Parents.

Mood Category	Significance
Sub1	.921
Sub2	.589
Sub3	.610
Ind1	.664
Ind2	.800
Ind3	.790
SubAll	.904
IndAll	.974
All parameters	.878

Table 113: Mean Scores for French Students: Occupation of Parents.

Mood Category	Occupation of Parents	N	Mean	Std. Dev.
Sub1	**Neither requires a professional degree**	11	83.3	22.4
	1 requires a professional degree	8	91.7	15.4
	Both require a professional degree	4	91.7	16.7
	Total	23	87.7	18.9
Sub2	**Neither requires a professional degree**	11	72.7	29.1
	1 requires a professional degree	8	91.7	15.4
	Both require a professional degree	4	75.0	31.9
	Total	23	79.7	26.1
Sub3	**Neither requires a professional degree**	11	71.2	21.2
	1 requires a professional degree	8	79.2	24.8
	Both require a professional degree	4	83.3	19.2
	Total	23	76.1	21.8
Ind1	**Neither requires a professional degree**	11	72.7	20.1
	1 requires a professional degree	8	77.1	23.5
	Both require a professional degree	4	66.7	27.2
	Total	23	73.2	21.8
Ind2	**Neither requires a professional degree**	11	72.7	32.7
	1 requires a professional degree	8	70.8	33.0
	Both require a professional degree	4	66.7	47.1
	Total	23	71.0	33.8
Ind3	**Neither requires a professional degree**	11	81.8	34.5
	1 requires a professional degree	8	66.7	35.6
	Both require a professional degree	4	83.3	19.2
	Total	23	76.8	32.5
SubAll	**Neither requires a professional degree**	11	75.8	21.6
	1 requires a professional degree	8	87.5	12.5
	Both require a professional degree	4	83.3	21.3
	Total	23	81.2	18.8
IndAll	**Neither requires a professional degree**	11	75.8	21.0
	1 requires a professional degree	8	71.5	23.3
	Both require a professional degree	4	72.2	28.0
	Total	23	73.7	22.0
All parameters	**Neither requires a professional degree**	11	75.8	26.7
	1 requires a professional degree	8	79.5	26.2
	Both require a professional degree	4	77.8	27.2
	Total	23	77.4	26.5

Table 114: ANOVA for French Students: Occupation of Parents.

Mood Category	Significance
Sub1	.596
Sub2	.285
Sub3	.584
Ind1	.751
Ind2	.958
Ind3	.570
SubAll	.410
IndAll	.916
All parameters	.757

Table 115: Mean Scores for French Students: Field of Studies.

Mood Category	Field of Studies	N	Mean	Std. Dev.
Sub1	**No specialization in languages**	12	87.5	16.1
	Specialization in languages	11	87.9	22.5
	Total	23	87.7	18.9
Sub2	**No specialization in languages**	12	75.0	25.1
	Specialization in languages	11	84.9	27.3
	Total	23	79.7	26.1
Sub3	**No specialization in languages**	12	70.8	24.7
	Specialization in languages	11	81.8	17.4
	Total	23	76.1	21.8
Ind1	**No specialization in languages**	12	70.8	17.6
	Specialization in languages	11	75.8	26.2
	Total	23	73.2	21.8
Ind2	**No specialization in languages**	12	72.2	27.8
	Specialization in languages	11	69.7	40.7
	Total	23	71.0	33.8
Ind3	**No specialization in languages**	12	69.4	38.8
	Specialization in languages	11	84.9	22.9
	Total	23	76.8	32.5
SubAll	**No specialization in languages**	12	77.8	18.3
	Specialization in languages	11	84.8	19.4
	Total	23	81.2	18.8
IndAll	**No specialization in languages**	12	70.8	22.6
	Specialization in languages	11	76.8	21.9
	Total	23	73.7	22.0
All parameters	**No specialization in languages**	12	74.3	25.9
	Specialization in languages	11	80.8	26.8
	Total	23	77.4	26.5

Table 116: ANOVA for French Students: Field of Studies.

Mood Category	Significance
Sub1	.963
Sub2	.378
Sub3	.236
Ind1	.599
Ind2	.863
Ind3	.265
SubAll	.379
IndAll	.530
All parameters	.150

Table 117: Mean Scores for French Students: Age of Initial Acquisition.

Mood Category	Age of Initial Acquisition	N	Mean	Std. Dev.
Sub1	**8-18**	11	86.4	22.1
	Before age 8	12	88.9	16.4
	Total	23	87.7	18.9
Sub2	**8-18**	11	81.8	27.3
	Before age 8	12	77.8	26.0
	Total	23	79.7	26.1
Sub3	**8-18**	11	80.3	19.5
	Before age 8	12	72.2	23.9
	Total	23	76.1	21.8
Ind1	**8-18**	11	84.9	17.4
	Before age 8	12	62.5	20.3
	Total	23	73.2	21.8
Ind2	**8-18**	11	75.8	33.6
	Before age 8	12	66.7	34.8
	Total	23	71.0	33.8
Ind3	**8-18**	11	81.8	27.3
	Before age 8	12	72.2	37.2
	Total	23	76.8	32.5
SubAll	**8-18**	11	82.8	19.5
	Before age 8	12	79.6	18.9
	Total	23	81.2	18.8
IndAll	**8-18**	11	80.8	17.3
	Before age 8	12	67.1	24.4
	Total	23	73.7	22.0
All parameters	**8-18**	11	81.8	24.4
	Before age 8	12	73.4	27.8
	Total	23	77.4	26.5

Table 118: Mean Scores for French Students: Place of Initial Acquisition.

Mood Category	Place of Initial Acquisition	N	Mean	Std. Dev.
Sub1	**Secondary School**	3	77.8	38.5
	Primary School	20	89.2	15.6
	Total	23	87.7	18.9
Sub2	**Secondary School**	3	77.8	38.5
	Primary School	20	80.0	25.1
	Total	23	79.7	26.1
Sub3	**Secondary School**	3	88.9	19.2
	Primary School	20	74.2	21.9
	Total	23	76.1	21.8
Ind1	**Secondary School**	3	88.9	19.2
	Primary School	20	70.8	21.5
	Total	23	73.2	21.8
Ind2	**Secondary School**	3	66.7	57.7
	Primary School	20	71.7	31.1
	Total	23	71.0	33.8
Ind3	**Secondary School**	3	77.8	38.5
	Primary School	20	76.7	32.6
	Total	23	76.8	32.5
SubAll	**Secondary School**	3	81.5	32.1
	Primary School	20	81.1	17.3
	Total	23	81.2	18.8
IndAll	**Secondary School**	3	77.8	29.4
	Primary School	20	73.1	21.6
	Total	23	73.7	22.0
All parameters	**Secondary School**	3	79.6	32.6
	Primary School	20	77.1	25.6
	Total	23	77.4	26.5

Table 119: ANOVA for French Students: Place of Initial Acquisition.

Mood Category	Significance
Sub1	.343
Sub2	.894
Sub3	.286
Ind1	.186
Ind2	.817
Ind3	.957
SubAll	.975
IndAll	.737
All parameters	.705

Table 120: Mean Scores for French Students: Role of French in School.

Mood Category	Role of French in School	N	Mean	Std. Dev.
Sub1	**Subject**	16	86.5	20.4
	Medium of instruction	7	90.5	16.3
	Total	23	87.7	18.9
Sub2	**Subject**	16	83.3	27.2
	Medium of instruction	7	71.4	23.0
	Total	23	79.7	26.1
Sub3	**Subject**	16	76.0	21.1
	Medium of instruction	7	76.2	25.2
	Total	23	76.1	21.8
Ind1	**Subject**	16	77.1	20.1
	Medium of instruction	7	64.3	24.4
	Total	23	73.2	21.8
Ind2	**Subject**	16	77.1	31.5
	Medium of instruction	7	57.1	37.1
	Total	23	71.0	33.8
Ind3	**Subject**	16	83.3	29.8
	Medium of instruction	7	61.9	35.6
	Total	23	76.8	32.5
SubAll	**Subject**	16	81.5	32.1
	Medium of instruction	7	81.1	17.3
	Total	23	81.2	18.8
IndAll	**Subject**	16	79.2	19.4
	Medium of instruction	7	61.1	23.8
	Total	23	73.7	22.0
All parameters	**Subject**	16	80.6	25.1
	Medium of instruction	7	70.2	28.4
	Total	23	77.4	26.5

Table 121: Mean Scores for French Students: Length of Stay in a French-Speaking Region.

Mood Category	Length of Stay in a French-Speaking Region	N	Mean	Std. Dev.
Sub1	**0-5 weeks**	10	96.7	10.54
	6 weeks- 11 months	9	88.9	16.7
	1 year or more	4	62.5	21.0
	Total	23	87.7	18.9
Sub2	**0-5 weeks**	10	90.0	16.1
	5 weeks- 11 months	9	81.5	29.4
	1 year or more	4	50.0	19.2
	Total	23	79.7	26.1
Sub3	**0-5 weeks**	10	80.0	23.3
	5 weeks- 11 months	9	81.5	17.6
	1 year or more	4	54.2	16.0
	Total	23	76.1	21.8
Ind1	**0-5 weeks**	10	71.7	19.3
	5 weeks- 11 months	9	74.1	27.8
	1 year or more	4	75.0	16.7
	Total	23	73.2	21.8
Ind2	**0-5 weeks**	10	83.3	23.6
	5 weeks- 11 months	9	66.7	37.3
	1 year or more	4	50.0	43.0
	Total	23	71.0	33.8
Ind3	**0-5 weeks**	10	76.7	35.3
	5 weeks- 11 months	9	85.2	17.6
	1 year or more	4	58.3	50.0
	Total	23	76.8	32.5
SubAll	**0-5 weeks**	10	88.9	11.7
	5 weeks- 11 months	9	84.0	18.5
	1 year or more	4	55.6	12.8
	Total	23	81.2	18.8
IndAll	**0-5 weeks**	10	77.2	18.6
	5 weeks- 11 months	9	75.3	24.1
	1 year or more	4	61.1	26.4
	Total	23	73.7	22.0
All parameters	**0-5 weeks**	10	83.1	23.3
	5 weeks- 11 months	9	79.6	25.4
	1 year or more	4	58.3	28.7
	Total	23	77.4	26.5

Table 122: Mean Scores for French Students: Place(s) Where French Is Used.

Mood Category	Place(s) Where French Is Used	N	Mean	Std. Dev.
Sub1	**Only school**	12	83.3	22.5
	School + other activities	7	95.2	12.6
	School + home	4	87.5	16.0
	Total	23	87.7	18.9
Sub2	**Only school**	12	80.6	30.0
	School + other activities	7	90.5	16.3
	School + home	4	58.3	16.7
	Total	23	79.7	26.1
Sub3	**Only school**	12	77.8	21.7
	School + other activities	7	85.7	17.8
	School + home	4	54.2	16.0
	Total	23	76.1	21.8
Ind1	**Only school**	12	80.6	17.2
	School + other activities	7	69.1	27.9
	School + home	4	58.3	16.7
	Total	23	73.2	21.8
Ind2	**Only school**	12	69.4	33.2
	School + other activities	7	85.7	26.2
	School + home	4	50.0	43.0
	Total	23	71.0	33.8
Ind3	**Only school**	12	75.0	35.2
	School + other activities	7	90.5	16.3
	School + home	4	58.3	41.9
	Total	23	76.8	32.5
SubAll	**Only school**	12	80.6	20.2
	School + other activities	7	90.5	13.5
	School + home	4	66.7	15.7
	Total	23	81.2	18.8
IndAll	**Only school**	12	75.0	20.2
	School + other activities	7	81.7	18.9
	School + home	4	55.6	27.2
	Total	23	73.7	22.0
All parameters	**Only school**	12	77.8	26.8
	School + other activities	7	86.1	20.8
	School + home	4	61.1	27.7
	Total	23	77.4	26.5

Table 123: Mean Scores for French Students: Hours Spent in French per Week.

Mood Category	Hours Spent in French per Week	N	Mean	Std. Dev.
Sub1	**Less than 3**	8	87.5	24.8
	3-6	8	87.5	17.3
	More than 6	7	88.1	15.9
	Total	23	87.7	18.9
Sub2	**Less than 3**	8	79.2	30.5
	3-6	8	79.2	24.8
	More than 6	7	81.0	26.2
	Total	23	79.7	26.1
Sub3	**Less than 3**	8	79.2	17.3
	3-6	8	75.0	23.6
	More than 6	7	73.8	27.0
	Total	23	76.1	21.8
Ind1	**Less than 3**	8	75.0	15.4
	3-6	8	81.3	16.5
	More than 6	7	61.9	30.0
	Total	23	73.2	21.8
Ind2	**Less than 3**	8	75.0	34.5
	3-6	8	79.1	24.8
	More than 6	7	57.1	41.8
	Total	23	71.0	33.8
Ind3	**Less than 3**	8	83.3	25.2
	3-6	8	75.0	38.8
	More than 6	7	71.4	35.6
	Total	23	76.8	32.5
SubAll	**Less than 3**	8	81.9	21.4
	3-6	8	80.6	16.5
	More than 6	7	81.0	21.0
	Total	23	81.2	18.8
IndAll	**Less than 3**	8	77.8	16.8
	3-6	8	78.5	21.5
	More than 6	7	63.5	27.0
	Total	23	73.7	22.0
All parameters	**Less than 3**	8	79.9	24.5
	3-6	8	79.5	24.4
	More than 6	7	72.2	30.5
	Total	23	77.4	26.5

Table 124: Mean Scores for French Students: Self-assessment of Skills in French on a Scale of 1-4, 4 Being the Highest.

Mood Category	Self-assessment of Skills in French on a Scale of 1-4	N	Mean	Std. Dev.
Sub1	**1**	7	81.0	26.2
	2-3	11	90.9	15.6
	4	5	90.0	14.9
	Total	23	87.7	18.9
Sub2	**1**	7	81.0	26.2
	2-3	11	78.8	27.0
	4	5	80.0	29.8
	Total	23	79.7	26.1
Sub3	**1**	7	81.0	26.2
	2-3	11	72.7	13.5
	4	5	76.7	32.5
	Total	23	76.1	21.8
Ind1	**1**	7	85.7	17.8
	2-3	11	74.2	20.2
	4	5	53.3	18.3
	Total	23	73.2	21.8
Ind2	**1**	7	66.7	38.5
	2-3	11	72.7	32.7
	4	5	73.3	36.5
	Total	23	71.0	33.8
Ind3	**1**	7	61.9	40.5
	2-3	11	87.9	16.8
	4	5	73.3	43.5
	Total	23	76.8	32.5
SubAll	**1**	7	81.0	22.0
	2-3	11	80.8	15.0
	4	5	82.2	25.6
	Total	23	81.2	18.8
IndAll	**1**	7	71.4	25.5
	2-3	11	78.3	18.7
	4	5	66.7	26.1
	Total	23	73.7	22.0
All parameters	**1**	7	76.2	29.7
	2-3	11	79.5	22.4
	4	5	74.4	30.2
	Total	23	77.4	26.5

Table 125: Mean Scores for French Students: Languages Spoken in Addition to English and French*.

Mood Category	Languages spoken in addition to English and French	N	Mean	Std. Dev.
Sub1	**None**	10	86.7	17.2
	1	9	85.2	24.2
	2 or more	4	95.8	8.3
	Total	23	87.7	18.9
Sub2	**None**	10	73.3	26.3
	1	9	81.5	29.4
	2 or more	4	91.7	16.7
	Total	23	79.7	26.1
Sub3	**None**	10	66.7	22.2
	1	9	85.2	17.6
	2 or more	4	79.2	25.0
	Total	23	76.1	21.8
Ind1	**None**	10	65.0	20.0
	1	9	77.8	23.6
	2 or more	4	83.3	19.2
	Total	23	73.2	21.8
Ind2	**None**	10	56.7	31.6
	1	9	74.1	36.4
	2 or more	4	100.0	0.0
	Total	23	71.0	33.8
Ind3	**None**	10	66.7	38.5
	1	9	77.8	28.9
	2 or more	4	100.0	0.0
	Total	23	76.8	32.5
SubAll	**None**	10	75.6	18.0
	1	9	84.0	20.9
	2 or more	4	88.9	15.7
	Total	23	81.2	18.8
IndAll	**None**	10	62.8	24.6
	1	9	76.5	16.1
	2 or more	4	94.4	6.4
	Total	23	73.7	22.0
All parameters	**None**	10	69.2	27.4
	1	9	80.2	26.3
	2 or more	4	91.7	15.5
	Total	23	77.4	26.5

**an average of 2 or more in the self-assessment was needed to count as another language spoken.*

Table 126: Mean Scores for Spanish Students: No Demographic Divisions.

Mood Category	N	Mean	Std. Dev.
Sub1	13	98.7	4.6
Sub2	13	89.7	21.0
Sub3	13	82.0	17.3
Ind1	13	75.6	36.4
Ind2	13	69.2	27.9
Ind3	13	84.6	22.0
SubAll	13	90.2	17.0
IndAll	13	76.5	29.3
All parameters	13	83.3	24.8

Table 127: Mean Scores for Spanish Students: Sex.

Mood Category	Sex	N	Mean	Std. Dev.
Sub1	**Male**	4	95.8	8.3
	Female	9	100.0	0.0
	Total	13	98.7	4.6
Sub2	**Male**	4	83.3	33.3
	Female	9	92.6	14.7
	Total	13	89.7	21.0
Sub3	**Male**	4	75.0	16.7
	Female	9	85.2	17.6
	Total	13	82.1	17.3
Ind1	**Male**	4	66.7	47.1
	Female	9	79.6	33.1
	Total	13	75.6	36.4
Ind2	**Male**	4	66.7	23.6
	Female	9	70.4	30.9
	Total	13	69.2	27.9
Ind3	**Male**	4	75.0	31.9
	Female	9	88.9	16.7
	Total	13	84.6	22.0
SubAll	**Male**	4	84.7	13.9
	Female	9	92.6	5.6
	Total	13	90.2	9.1
IndAll	**Male**	4	69.4	32.2
	Female	9	79.6	18.4
	Total	13	76.5	22.6
All parameters	**Male**	4	77.1	28.2
	Female	9	86.1	22.8
	Total	13	83.3	24.8

Table 128: ANOVA for Spanish Students: Sex.

Mood Category	Significance
Sub1	.139
Sub2	.488
Sub3	.349
Ind1	.576
Ind2	.836
Ind3	.314
SubAll	.159
IndAll	.477
All parameters	.138

Table 129: Mean Scores for Spanish Students: Age.

Mood Category	Age Group	N	Mean	Std. Dev.
Sub1	**18-19**	4	100.0	0.0
	20-29	8	97.9	5.9
	30+	1	100.0	-
	Total	13	98.7	4.6
Sub2	**18-19**	4	75.0	31.9
	20-29	8	95.8	11.8
	30+	1	100.0	-
	Total	13	89.7	21.0
Sub3	**18-19**	4	75.0	16.7
	20-29	8	83.3	17.8
	30+	1	100.0	-
	Total	13	82.1	17.3
Ind1	**18-19**	4	66.7	47.1
	20-29	8	81.3	35.0
	30+	1	66.7	-
	Total	13	75.6	36.4
Ind2	**18-19**	4	70.8	21.0
	20-29	8	64.6	31.4
	30+	1	100.0	-
	Total	13	69.2	27.9
Ind3	**18-19**	4	83.3	19.2
	20-29	8	83.3	25.2
	30+	1	100.0	-
	Total	13	84.6	22.0
SubAll	**18-19**	4	83.3	11.1
	20-29	8	92.4	6.6
	30+	1	100.0	-
	Total	13	90.2	9.1
IndAll	**18-19**	4	73.6	20.0
	20-29	8	76.4	26.0
	30+	1	88.9	-
	Total	13	76.5	22.6
All parameters	**18-19**	4	78.5	26.2
	20-29	8	84.4	24.9
	30+	1	94.4	13.6
	Total	13	83.3	24.8

Table 130: ANOVA for Spanish Students: Age.

Mood Category	Significance
Sub1	.765
Sub2	.254
Sub3	.447
Ind1	.810
Ind2	.526
Ind3	.798
SubAll	.142
IndAll	.856
All parameters	.334

Table 131: Mean Scores for Spanish Students: Place of Residence from Ages 8-18.

Mood Category	Residence 8-18	N	Mean	Std. Dev.
Sub1	**Abroad**	3	100.0	0.0
	Canada	10	98.3	5.3
	Total	13	98.7	4.6
Sub2	**Abroad**	3	66.7	33.3
	Canada	10	96.7	10.5
	Total	13	89.7	21.0
Sub3	**Abroad**	3	77.8	19.2
	Canada	10	83.3	17.6
	Total	13	82.1	17.3
Ind1	**Abroad**	3	83.3	16.7
	Canada	10	73.3	41.0
	Total	13	75.6	36.4
Ind2	**Abroad**	3	50.0	50.0
	Canada	10	75.0	18.0
	Total	13	69.2	27.9
Ind3	**Abroad**	3	77.8	19.2
	Canada	10	86.7	23.3
	Total	13	84.6	22.0
SubAll	**Abroad**	3	81.5	12.8
	Canada	10	92.8	6.4
	Total	13	90.2	9.1
IndAll	**Abroad**	3	70.4	26.3
	Canada	10	78.3	22.6
	Total	13	76.5	22.6
All parameters	**Abroad**	3	75.9	28.1
	Canada	10	85.6	23.5
	Total	13	83.3	24.8

Table 132: Mean Scores for Spanish Students: Origin of Parents.

Mood Category	Origin of Parents	N	Mean	Std. Dev.
Sub1	**2 Foreign Parents**	5	100.0	0.0
	1 Foreign Parent	5	96.7	7.5
	2 Canadian Parents	3	100.0	0.0
	Total	13	98.7	4.6
Sub2	**2 Foreign Parents**	5	73.3	27.9
	1 Foreign Parent	5	100.0	0.0
	2 Canadian Parents	3	100.0	0.0
	Total	13	89.7	21.0
Sub3	**2 Foreign Parents**	5	80.0	18.3
	1 Foreign Parent	5	80.0	18.3
	2 Canadian Parents	3	88.9	19.2
	Total	13	82.1	17.3
Ind1	**2 Foreign Parents**	5	90.0	14.9
	1 Foreign Parent	5	53.3	50.6
	2 Canadian Parents	3	88.9	19.2
	Total	13	75.6	36.4
Ind2	**2 Foreign Parents**	5	63.3	41.5
	1 Foreign Parent	5	76.7	22.4
	2 Canadian Parents	3	66.7	0.0
	Total	13	69.2	27.9
Ind3	**2 Foreign Parents**	5	80.0	18.3
	1 Foreign Parent	5	86.7	29.8
	2 Canadian Parents	3	88.9	19.2
	Total	13	84.6	22.0
SubAll	**2 Foreign Parents**	5	84.4	9.9
	1 Foreign Parent	5	92.2	7.5
	2 Canadian Parents	3	96.3	6.4
	Total	13	90.2	9.1
IndAll	**2 Foreign Parents**	5	77.8	22.6
	1 Foreign Parent	5	72.2	29.9
	2 Canadian Parents	3	81.5	12.8
	Total	13	76.5	22.6
All parameters	**2 Foreign Parents**	5	81.1	24.7
	1 Foreign Parent	5	82.2	29.0
	2 Canadian Parents	3	88.9	16.2
	Total	13	83.3	24.8

Table 133: ANOVA for Spanish Students: Origin of Parents.

Mood Category	Significance
Sub1	.489
Sub2	.070
Sub3	.771
Ind1	.230
Ind2	.773
Ind3	.853
SubAll	.170
IndAll	.866
All parameters	.553

Table 134: Mean Scores for Spanish Students: Occupation of Parents.

Mood Category	Occupation of Parents	N	Mean	Std. Dev.
Sub1	**Neither requires a professional degree**	7	100.0	0.0
	1 requires a professional degree	3	94.4	9.6
	Both require a professional degree	3	100.0	0.0
	Total	13	98.7	4.6
Sub2	**Neither requires a professional degree**	7	90.5	16.3
	1 requires a professional degree	3	100.0	0.0
	Both require a professional degree	3	77.8	38.5
	Total	13	89.7	21.0
Sub3	**Neither requires a professional degree**	7	85.7	17.8
	1 requires a professional degree	3	77.8	19.2
	Both require a professional degree	3	77.8	19.2
	Total	13	82.1	17.3
Ind1	**Neither requires a professional degree**	7	78.6	36.9
	1 requires a professional degree	3	55.6	50.9
	Both require a professional degree	3	88.9	19.2
	Total	13	75.6	36.4
Ind2	**Neither requires a professional degree**	7	71.4	35.6
	1 requires a professional degree	3	61.1	9.6
	Both require a professional degree	3	72.2	25.5
	Total	13	69.2	27.9
Ind3	**Neither requires a professional degree**	7	90.5	16.3
	1 requires a professional degree	3	66.7	33.3
	Both require a professional degree	3	88.9	19.2
	Total	13	84.6	22.0
SubAll	**Neither requires a professional degree**	7	92.1	5.4
	1 requires a professional degree	3	90.7	8.5
	Both require a professional degree	3	85.2	17.0
	Total	13	90.2	9.1
IndAll	**Neither requires a professional degree**	7	80.2	20.2
	1 requires a professional degree	3	61.1	30.9
	Both require a professional degree	3	83.3	20.0
	Total	13	76.5	22.5
All parameters	**Neither requires a professional degree**	7	86.1	24.4
	1 requires a professional degree	3	75.9	28.1
	Both require a professional degree	3	84.3	21.7
	Total	13	83.3	24.8

Table 135: ANOVA for Spanish Students: Occupation of Parents.

Mood Category	Significance
Sub1	.196
Sub2	.549
Sub3	.467
Ind1	.869
Ind2	.747
Ind3	.294
SubAll	.588
IndAll	.433
All parameters	.343

Table 136: Mean Scores for Spanish Students: Field of Studies.

Mood Category	Field of Studies	N	Mean	Std. Dev.
Sub1	**No specialization in languages**	9	100.0	0.0
	Specialization in languages	4	95.8	8.3
	Total	13	98.7	4.6
Sub2	**No specialization in languages**	9	96.3	11.1
	Specialization in languages	4	75.0	31.9
	Total	13	89.7	21.0
Sub3	**No specialization in languages**	9	85.2	17.6
	Specialization in languages	4	75.0	16.7
	Total	13	82.1	17.3
Ind1	**No specialization in languages**	9	90.7	14.7
	Specialization in languages	4	41.7	50.0
	Total	13	75.6	36.4
Ind2	**No specialization in languages**	9	74.1	32.4
	Specialization in languages	4	58.3	9.6
	Total	13	69.2	27.9
Ind3	**No specialization in languages**	9	92.6	14.7
	Specialization in languages	4	66.7	27.2
	Total	13	84.6	22.0
SubAll	**No specialization in languages**	9	93.8	5.9
	Specialization in languages	4	81.9	10.5
	Total	13	90.2	9.1
IndAll	**No specialization in languages**	9	85.8	16.9
	Specialization in languages	4	55.6	20.8
	Total	13	76.5	22.6
All parameters	**No specialization in languages**	9	89.8	19.0
	Specialization in languages	4	68.8	30.0
	Total	13	83.3	24.8

Table 137: Mean Scores for Spanish Students: Age of Initial Acquisition.

Mood Category	Age of Initial Acquisition	N	Mean	Std. Dev.
Sub1	**After age 18**	4	100.0	0.0
	8-18	8	97.9	5.9
	Before age 8	1	100.0	-
	Total	13	98.7	4.6
Sub2	**After age 18**	4	83.3	33.3
	8-18	8	91.7	15.4
	Before age 8	1	100.0	-
	Total	13	89.7	21.0
Sub3	**After age 18**	4	83.3	19.2
	8-18	8	83.3	17.8
	Before age 8	1	66.7	-
	Total	13	82.1	17.3
Ind1	**After age 18**	4	83.3	19.2
	8-18	8	68.8	44.0
	Before age 8	1	100.0	0
	Total	13	75.6	36.4
Ind2	**After age 18**	4	79.2	25.0
	8-18	8	60.4	28.1
	Before age 8	1	100.0	-
	Total	13	69.2	27.9
Ind3	**After age 18**	4	91.7	16.7
	8-18	8	79.2	24.8
	Before age 8	1	100.0	-
	Total	13	84.6	22.0
SubAll	**After age 18**	4	88.9	15.7
	8-18	8	91.0	5.9
	Before age 8	1	88.9	-
	Total	13	90.2	9.1
IndAll	**After age 18**	4	84.7	16.6
	8-18	8	69.4	24.1
	Before age 8	1	100.0	-
	Total	13	76.5	22.6
All parameters	**After age 18**	4	86.8	20.3
	8-18	8	80.2	27.4
	Before age 8	1	94.4	13.6
	Total	13	83.3	24.8

Table 138: ANOVA for Spanish Students: Age of Initial Acquisition.

Mood Category	Significance
Sub1	.765
Sub2	.748
Sub3	.690
Ind1	.673
Ind2	.308
Ind3	.540
SubAll	.935
IndAll	.329
All parameters	.298

Table 139: Mean Scores for Spanish Students: Place of Initial Acquisition.

Mood Category	Place of Initial Acquisition	N	Mean	Std. Dev.
Sub1	**Post secondary school**	3	100.0	0.0
	Secondary school	9	98.2	5.6
	Home	1	100.0	-
	Total	13	98.7	4.6
Sub2	**Post secondary school**	3	100.0	-
	Secondary school	9	85.2	24.2
	Home	1	100.0	-
	Total	13	89.7	21.0
Sub3	**Post secondary school**	3	88.9	19.2
	Secondary school	9	81.5	17.6
	Home	1	66.7	-
	Total	13	82.1	17.3
Ind1	**Post secondary school**	3	88.9	19.2
	Secondary school	9	68.5	41.2
	Home	1	100.0	-
	Total	13	75.6	36.4
Ind2	**Post secondary school**	3	88.9	19.2
	Secondary school	9	59.3	26.5
	Home	1	100.0	-
	Total	13	69.2	27.9
Ind3	**Post secondary school**	3	100.0	-
	Secondary school	9	77.8	23.6
	Home	1	100.0	-
	Total	13	84.6	22.0
SubAll	**Post secondary school**	3	96.3	6.4
	Secondary school	9	88.3	9.8
	Home	1	88.9	-
	Total	13	90.2	9.1
IndAll	**Post secondary school**	3	92.6	6.4
	Secondary school	9	68.5	22.7
	Home	1	100.0	-
	Total	13	76.5	22.6
All parameters	**Post secondary school**	3	94.4	12.8
	Secondary school	9	78.4	27.2
	Home	1	94.4	13.6
	Total	13	83.3	24.8

Table 140: ANOVA for Spanish Students: Place of Initial Acquisition.

Mood Category	Significance
Sub1	.787
Sub2	.633
Sub3	.377
Ind1	.510
Ind2	.269
Ind3	.491
SubAll	.451
IndAll	.155
All parameters	.028

Table 141: Mean Scores for Spanish Students: Role of Spanish in School.

Mood Category	Role of Spanish in School	N	Mean	Std. Dev.
Sub1	**Subject**	12	98.6	4.8
	Medium of instruction	1	100	-
	Total	13	98.7	4.6
Sub2	**Subject**	12	88.9	21.7
	Medium of instruction	1	100.0	-
	Total	13	89.7	21.0
Sub3	**Subject**	12	83.3	17.4
	Medium of instruction	1	66.7	-
	Total	13	82.1	17.3
Ind1	**Subject**	12	73.6	37.2
	Medium of instruction	1	100.0	-
	Total	13	75.6	36.4
Ind2	**Subject**	12	66.7	27.5
	Medium of instruction	1	100.0	-
	Total	13	69.2	27.9
Ind3	**Subject**	12	83.3	22.5
	Medium of instruction	1	100.0	-
	Total	13	84.6	22.0
SubAll	**Subject**	12	90.3	9.5
	Medium of instruction	1	88.9	-
	Total	13	90.2	9.1
IndAll	**Subject**	12	74.5	22.4
	Medium of instruction	1	100.0	-
	Total	13	76.5	22.6
All parameters	**Subject**	12	82.4	25.3
	Medium of instruction	1	94.4	13.6
	Total	13	83.3	24.8

Table 142: ANOVA for Spanish Students: Role of Spanish in School.

Mood Category	Significance
Sub1	.787
Sub2	.633
Sub3	.377
Ind1	.510
Ind2	.269
Ind3	.491
SubAll	.891
IndAll	.298
All parameters	.255

Table 143: Mean Scores for Spanish Students: Length of Stay in a Spanish-Speaking Region.

Mood Category	Length of Stay in a Spanish-Speaking Region	N	Mean	Std. Dev.
Sub1	**0-5 weeks**	8	100.0	-
	6 weeks- 11 months	4	95.8	8.3
	1 year or more	1	100.0	-
	Total	13	98.7	4.6
Sub2	**0-5 weeks**	8	87.5	24.8
	6 weeks- 11 months	4	91.7	16.7
	1 year or more	1	100.0	-
	Total	13	89.7	21.0
Sub3	**0-5 weeks**	8	83.3	17.8
	6 weeks- 11 months	4	83.3	19.2
	1 year or more	1	66.7	-
	Total	13	82.1	17.3
Ind1	**0-5 weeks**	8	79.2	35.4
	6 weeks- 11 months	4	62.5	43.8
	1 year or more	1	100.0	-
	Total	13	75.6	36.4
Ind2	**0-5 weeks**	8	68.8	13.9
	6 weeks- 11 months	4	62.5	47.9
	1 year or more	1	100.0	-
	Total	13	69.2	27.9
Ind3	**0-5 weeks**	8	87.5	17.3
	6 weeks- 11 months	4	75.0	31.9
	1 year or more	1	100.0	-
	Total	13	84.6	22.0
SubAll	**0-5 weeks**	8	90.3	11.0
	6 weeks- 11 months	4	90.3	7.0
	1 year or more	1	88.9	-
	Total	13	90.2	9.1
IndAll	**0-5 weeks**	8	78.5	15.8
	6 weeks- 11 months	4	66.7	33.6
	1 year or more	1	100.0	-
	Total	13	76.5	22.6
All parameters	**0-5 weeks**	8	84.4	22.1
	6 weeks- 11 months	4	78.5	30.9
	1 year or more	1	94.4	13.6
	Total	13	83.3	24.7

Table 144: Mean Scores for Spanish Students: Place(s) Where Spanish Is Used.

Mood Category	Place(s) Where Spanish Is Used	N	Mean	Std. Dev.
Sub1	**Only school**	5	100.0	-
	School + other activities	5	100.0	-
	School + home	3	94.4	9.6
	Total	13	98.7	4.6
Sub2	**Only school**	5	93.3	14.9
	School + other activities	5	86.7	29.8
	School + home	3	88.9	19.2
	Total	13	89.7	21.0
Sub3	**Only school**	5	86.7	18.3
	School + other activities	5	80.0	18.3
	School + home	3	77.8	19.2
	Total	13	82.1	17.3
Ind1	**Only school**	5	90.0	14.9
	School + other activities	5	66.7	40.8
	School + home	3	66.7	57.7
	Total	13	75.6	36.4
Ind2	**Only school**	5	60.0	36.5
	School + other activities	5	76.7	22.3
	School + home	3	72.2	25.5
	Total	13	69.2	27.9
Ind3	**Only school**	5	86.7	18.3
	School + other activities	5	93.3	14.9
	School + home	3	66.7	33.3
	Total	13	84.6	22.0
SubAll	**Only school**	5	93.3	6.1
	School + other activities	5	88.9	13.6
	School + home	3	87.0	3.2
	Total	13	90.2	9.1
IndAll	**Only school**	5	78.9	20.2
	School + other activities	5	78.9	19.4
	School + home	3	68.5	37.0
	Total	13	76.5	22.6
All parameters	**Only school**	5	86.1	22.4
	School + other activities	5	83.9	24.9
	School + home	3	77.8	28.6
	Total	13	83.3	24.8

Table 145: ANOVA for Spanish Students: Place(s) Where Spanish Is Used.

Mood Category	Significance
Sub1	.196
Sub2	.897
Sub3	.771
Ind1	.573
Ind2	.667
Ind3	.262
SubAll	.631
IndAll	.813
All parameters	.528

Table 146: Mean Scores for Spanish Students: Hours Spent in Spanish per Week.

Mood Category	Hours Spent in Spanish per Week	N	Mean	Std. Dev.
Sub1	**0-4**	6	100.0	-
	5-6	4	100.0	-
	7+	3	94.4	9.6
	Total	13	98.7	4.6
Sub2	**0-4**	6	77.8	27.2
	5-6	4	100.0	-
	7+	3	100.0	-
	Total	13	89.7	21.0
Sub3	**0-4**	6	88.9	17.2
	5-6	4	83.3	19.2
	7+	3	66.7	-
	Total	13	82.1	17.3
Ind1	**0-4**	6	86.1	16.4
	5-6	4	91.7	16.7
	7+	3	33.3	57.7
	Total	13	75.6	36.4
Ind2	**0-4**	6	63.9	37.1
	5-6	4	75.0	16.7
	7+	3	72.2	25.5
	Total	13	69.2	27.9
Ind3	**0-4**	6	83.3	18.3
	5-6	4	91.7	16.7
	7+	3	77.8	38.5
	Total	13	84.6	22.0
SubAll	**0-4**	6	88.9	12.2
	5-6	4	94.4	6.4
	7+	3	87.0	3.2
	Total	13	90.2	9.1
IndAll	**0-4**	6	77.8	19.0
	5-6	4	86.1	14.0
	7+	3	61.1	36.4
	Total	13	76.5	22.6
All parameters	**0-4**	6	83.3	23.6
	5-6	4	90.3	15.5
	7+	3	74.1	33.9
	Total	13	83.3	24.8

Table 147: Mean Scores for Spanish Students: Self-assessment of Skills in Spanish on a Scale of 1-4, 4 Being the Highest.

Mood Category	Self-assessment of skills in Spanish on a scale of 1-4	N	Mean	Std. Dev.
Sub1	**1**	5	100.0	-
	2-3	4	100.0	-
	4	4	95.8	8.3
	Total	13	98.7	4.6
Sub2	**1**	5	93.3	14.9
	2-3	4	75.0	31.9
	4	4	100.0	-
	Total	13	89.7	21.0
Sub3	**1**	5	93.3	14.9
	2-3	4	75.0	16.7
	4	4	75.0	16.7
	Total	13	82.1	17.3
Ind1	**1**	5	83.3	16.7
	2-3	4	91.7	16.7
	4	4	50.0	57.7
	Total	13	75.6	36.4
Ind2	**1**	5	60.0	36.5
	2-3	4	79.2	25.0
	4	4	70.8	21.0
	Total	13	69.2	27.9
Ind3	**1**	5	86.7	18.3
	2-3	4	83.3	19.2
	4	4	83.3	33.3
	Total	13	84.6	22.0
SubAll	**1**	5	95.6	6.1
	2-3	4	83.3	11.1
	4	4	90.3	7.0
	Total	13	90.2	9.1
IndAll	**1**	5	76.7	17.7
	2-3	4	84.7	18.9
	4	4	68.1	32.8
	Total	13	76.5	22.6
All parameters	**1**	5	86.1	22.4
	2-3	4	84.0	20.5
	4	4	79.2	31.2
	Total	13	83.3	24.8

Table 148: ANOVA for Spanish Students: Self-assessment of Skills in Spanish on a Scale of 1-4, 4 Being the Highest.

Mood Category	Significance
Sub1	.354
Sub2	.229
Sub3	.183
Ind1	.239
Ind2	.628
Ind3	.971
SubAll	.132
IndAll	.621
All parameters	.590

Table 149: Mean Scores for Spanish Students: Languages Spoken in Addition to English and Spanish*.

Mood Category	Languages Spoken in Addition to English and Spanish	N	Mean	Std. Dev.
Sub1	**None**	3	100.0	-
	1	8	97.9	5.9
	2 or more	2	100.0	-
	Total	13	98.7	4.6
Sub2	**None**	3	88.9	19.2
	1	8	87.5	24.8
	2 or more	2	100.0	-
	Total	13	89.7	21.0
Sub3	**None**	3	66.7	57.7
	1	8	66.7	15.4
	2 or more	2	83.3	23.6
	Total	13	69.2	27.9
Ind1	**None**	3	83.3	16.7
	1	8	66.7	43.6
	2 or more	2	100.0	-
	Total	13	75.6	36.4
Ind2	**None**	3	66.7	57.7
	1	8	66.7	15.4
	2 or more	2	83.3	23.6
	Total	13	69.2	27.9
Ind3	**None**	3	88.9	19.2
	1	8	79.2	24.8
	2 or more	2	100.0	-
	Total	13	84.6	22.0
SubAll	**None**	3	92.6	6.4
	1	8	88.2	10.5
	2 or more	2	94.4	7.9
	Total	13	90.2	9.1
IndAll	**None**	3	79.6	26.3
	1	8	70.8	23.1
	2 or more	2	94.4	7.9
	Total	13	76.5	22.6
All Parameters	**None**	3	86.1	25.7
	1	8	79.5	26.0
	2 or more	2	94.4	13.0
	Total	13	83.3	24.7

**an average of 2 or more in the self-assessment was needed to count as another language spoken.*

Table 150: ANOVA for Spanish Students: Languages Spoken in Addition to English and Spanish.

Mood Category	Significance
Sub1	.765
Sub2	.783
Sub3	.740
Ind1	.509
Ind2	.773
Ind3	.493
SubAll	.639
IndAll	.439
All parameters	.151

Table 151: Scores for French Native Speakers and French Students: Type of Speaker.

Mood Category	Type of Speaker	N	Mean	Std. Dev.
Sub1	**French Native Speaker**	43	87.2	19.5
	French Student	23	87.7	18.9
	Total	66	87.4	19.2
Sub2	**French Native Speaker**	43	77.9	23.8
	French Student	23	79.7	26.1
	Total	66	78.5	24.4
Sub3	**French Native Speaker**	43	79.8	20.4
	French Student	23	76.1	21.8
	Total	66	78.5	20.8
Ind1	**French Native Speaker**	43	61.2	27.6
	French Student	23	73.2	21.8
	Total	66	65.4	26.2
Ind2	**French Native Speaker**	43	80.6	23.0
	French Student	23	71.0	33.8
	Total	66	77.3	27.4
Ind3	**French Native Speaker**	43	86.8	20.4
	French Student	23	76.8	32.5
	Total	66	83.3	25.5
SubAll	**French Native Speaker**	43	81.7	21.5
	French Student	23	81.2	22.7
	Total	66	81.5	21.9
IndAll	**French Native Speaker**	43	76.2	26.1
	French Student	23	73.7	29.5
	Total	66	75.3	27.3
All parameters	**French Native Speaker**	43	78.9	24.0
	French Student	23	77.4	26.5
	Total	66	78.4	24.9

Table 152: Scores for French Students: Languages Spoken.

Mood Category	Languages Spoken	N	Mean	Std. Dev.
Sub1	**French Student without Spanish**	15	85.6	20.8
	French Student with Spanish	8	91.7	15.4
	Total	23	87.7	18.9
Sub2	**French Student without Spanish**	15	73.3	25.8
	French Student with Spanish	8	91.7	23.6
	Total	23	79.7	26.1
Sub3	**French Student without Spanish**	15	72.2	23.3
	French Student with Spanish	8	83.3	17.8
	Total	23	76.1	21.8
Ind1	**French Student without Spanish**	15	72.2	21.5
	French Student with Spanish	8	75.0	23.6
	Total	23	73.2	21.8
Ind2	**French Student without Spanish**	15	62.2	35.3
	French Student with Spanish	8	87.5	24.8
	Total	23	71.0	33.8
Ind3	**French Student without Spanish**	15	68.9	36.7
	French Student with Spanish	8	91.7	15.4
	Total	23	76.8	32.5
SubAll	**French Student without Spanish**	15	77.0	19.5
	French Student with Spanish	8	88.9	15.7
	Total	23	81.2	18.8
IndAll	**French Student without Spanish**	15	67.8	24.1
	French Student with Spanish	8	84.7	11.8
	Total	23	73.7	22.0
All parameters	**French Student without Spanish**	15	72.4	28.0
	French Student with Spanish	8	86.8	20.3
	Total	23	77.4	26.5

Table 153: Scores for Native French Speakers and French Students with Spanish: Type of Speaker.

Mood Category	Type of speaker	N	Mean	Std. Dev.
Sub1	**Native French Speaker**	43	87.2	19.5
	French Student with Spanish	8	91.7	15.4
	Total	51	87.9	18.9
Sub2	**Native French Speaker**	43	77.9	23.8
	French Student with Spanish	8	91.7	23.6
	Total	51	80.1	24.0
Sub3	**Native French Speaker**	43	79.8	20.4
	French Student with Spanish	8	83.3	17.8
	Total	51	80.4	19.9
Ind1	**Native French Speaker**	43	61.2	27.6
	French Student with Spanish	8	75.0	23.6
	Total	51	63.4	27.3
Ind2	**Native French Speaker**	43	80.6	23.0
	French Student with Spanish	8	87.5	24.8
	Total	51	81.7	23.2
Ind3	**Native French Speaker**	43	86.8	20.4
	French Student with Spanish	8	91.7	15.4
	Total	51	87.6	19.7
SubAll	**Native French Speaker**	43	81.7	12.0
	French Student with Spanish	8	88.9	15.7
	Total	51	82.8	12.8
IndAll	**Native French Speaker**	43	76.2	16.9
	French Student with Spanish	8	84.7	11.8
	Total	51	77.6	16.4
All parameters	**Native French Speaker**	43	78.9	24.0
	French Student with Spanish	8	86.8	20.3
	Total	51	80.2	23.6

Table 154: Scores for French Native Speakers and French Students without Spanish: Type of Speaker.

Mood Category	Type of speaker	N	Mean	Std. Dev.
Sub1	**Native French Speaker**	43	87.2	19.5
	French Student without Spanish	15	85.6	20.8
	Total	58	86.8	19.7
Sub2	**Native French Speaker**	43	77.9	23.8
	French Student without Spanish	15	73.3	25.8
	Total	58	76.7	24.2
Sub3	**Native French Speaker**	43	79.8	20.4
	French Student without Spanish	15	72.2	23.3
	Total	58	77.9	21.3
Ind1	**Native French Speaker**	43	61.2	27.6
	French Student without Spanish	15	72.2	21.5
	Total	58	64.1	26.5
Ind2	**Native French Speaker**	43	80.6	23.0
	French Student without Spanish	15	62.2	35.3
	Total	58	75.9	27.6
Ind3	**Native French Speaker**	43	86.8	20.4
	French Student without Spanish	15	68.9	36.7
	Total	58	82.2	26.5
SubAll	**Native French Speaker**	43	81.7	12.0
	French Student without Spanish	15	77.0	19.5
	Total	58	80.5	14.3
IndAll	**Native French Speaker**	43	76.2	16.9
	French Student without Spanish	15	67.8	24.1
	Total	58	74.0	19.1
All parameters	**Native French Speaker**	43	78.9	24.0
	French Student without Spanish	15	72.4	28.0
	Total	58	77.3	25.3

Table 155: Scores for Spanish Native Speakers and Spanish Students: Type of Speaker.

Mood Category	Type of Speaker	N	Mean	Std. Dev.
Sub1	**Spanish Native Speaker**	22	92.4	20.4
	Spanish Student	13	98.7	4.6
	Total	35	94.8	16.6
Sub2	**Spanish Native Speaker**	22	75.8	17.6
	Spanish Student	13	89.7	21.0
	Total	35	81.0	19.9
Sub3	**Spanish Native Speaker**	22	81.8	16.2
	Spanish Student	13	82.0	17.3
	Total	35	81.9	16.4
Ind1	**Spanish Native Speaker**	22	75.0	21.7
	Spanish Student	13	75.6	36.4
	Total	35	75.2	27.5
Ind2	**Spanish Native Speaker**	22	78.0	25.9
	Spanish Student	13	69.2	27.9
	Total	35	74.8	26.6
Ind3	**Spanish Native Speaker**	22	75.0	29.4
	Spanish Student	13	84.6	22.0
	Total	35	78.6	27.0
SubAll	**Spanish Native Speaker**	22	83.3	19.2
	Spanish Student	13	90.2	17.0
	Total	35	85.8	18.6
IndAll	**Spanish Native Speaker**	22	76.0	25.5
	Spanish Student	13	76.5	29.3
	Total	35	76.2	26.8
All parameters	**Spanish Native Speaker**	22	79.7	22.8
	Spanish Student	13	83.3	24.8
	Total	35	81.0	23.5

Table 156: Scores for Spanish Students: Languages Spoken.

Mood Category	Languages Spoken	N	Mean	Std. Dev.
Sub1	**Spanish Student without French**	5	96.7	7.5
	Spanish Student with French	8	100.0	-
	Total	13	98.7	4.6
Sub2	**Spanish Student without French**	5	73.3	27.9
	Spanish Student with French	8	100.0	-
	Total	13	89.7	21.0
Sub3	**Spanish Student without French**	5	86.7	18.3
	Spanish Student with French	8	79.2	17.3
	Total	13	82.1	17.3
Ind1	**Spanish Student without French**	5	63.3	38.0
	Spanish Student with French	8	83.3	35.6
	Total	13	75.6	36.4
Ind2	**Spanish Student without French**	5	53.3	36.1
	Spanish Student with French	8	79.2	17.3
	Total	13	69.2	27.9
Ind3	**Spanish Student without French**	5	66.7	23.6
	Spanish Student with French	8	95.8	11.8
	Total	13	84.6	22.0
SubAll	**Spanish Student without French**	5	85.6	12.2
	Spanish Student with French	8	93.1	5.8
	Total	13	90.2	9.1
IndAll	**Spanish Student without French**	5	61.1	23.9
	Spanish Student with French	8	86.1	16.5
	Total	13	76.5	22.6
All parameters	**Spanish Student without French**	5	73.3	22.0
	Spanish Student with French	8	89.6	12.5
	Total	13	83.3	24.8

Table 157: Scores for Native Spanish Speakers and Spanish Students with French: Type of Speaker.

Mood Category	Type of speaker	N	Mean	Std. Dev.
Sub1	**Native Spanish Speaker**	22	92.4	20.4
	Spanish Student with French	8	100.0	-
	Total	30	94.4	17.7
Sub2	**Native Spanish Speaker**	22	75.8	17.6
	Spanish Student with French	8	100.0	-
	Total	30	82.2	18.5
Sub3	**Native Spanish Speaker**	22	81.8	16.2
	Spanish Student with French	8	79.2	17.3
	Total	30	81.1	16.2
Ind1	**Native Spanish Speaker**	22	75.0	21.7
	Spanish Student with French	8	83.3	35.6
	Total	30	77.2	25.7
Ind2	**Native Spanish Speaker**	22	78.0	25.9
	Spanish Student with French	8	79.2	17.3
	Total	30	78.3	23.6
Ind3	**Native Spanish Speaker**	22	75.0	29.4
	Spanish Student with French	8	95.8	11.8
	Total	30	80.6	27.4
SubAll	**Native Spanish Speaker**	22	83.3	12.9
	Spanish Student with French	8	93.1	5.8
	Total	30	85.9	12.2
IndAll	**Native Spanish Speaker**	22	76.0	19.2
	Spanish Student with French	8	86.1	16.5
	Total	30	78.7	18.8
All parameters	**Native Spanish Speaker**	22	79.7	22.8
	Spanish Student with French	8	89.6	19.6
	Total	30	82.3	22.4

Table 158: Scores for Native Spanish Speakers and Spanish Students without French: Type of Speaker.

Mood Category	Type of speaker	N	Mean	Std. Dev.
Sub1	**Native Spanish Speaker**	22	92.4	20.4
	Spanish Student without French	5	96.7	7.5
	Total	27	93.2	18.6
Sub2	**Native Spanish Speaker**	22	75.8	17.6
	Spanish Student without French	5	73.3	27.9
	Total	27	75.3	19.3
Sub3	**Native Spanish Speaker**	22	81.8	16.2
	Spanish Student without French	5	86.7	18.3
	Total	27	82.7	16.3
Ind1	**Native Spanish Speaker**	22	75.0	21.7
	Spanish Student without French	5	63.3	38.0
	Total	27	72.8	25.0
Ind2	**Native Spanish Speaker**	22	78.0	25.9
	Spanish Student without French	5	53.3	36.1
	Total	27	73.5	29.0
Ind3	**Native Spanish Speaker**	22	75.0	29.4
	Spanish Student without French	5	66.7	23.6
	Total	27	73.5	28.2
SubAll	**Native Spanish Speaker**	22	83.3	12.9
	Spanish Student without French	5	85.6	12.2
	Total	27	83.7	12.6
IndAll	**Native Spanish Speaker**	22	76.0	19.2
	Spanish Student without French	5	61.1	23.9
	Total	27	73.3	20.5
All parameters	**Native Spanish Speaker**	22	79.7	22.8
	Spanish Student without French	5	73.3	28.9
	Total	27	78.5	24.1

Curriculum Vitae

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