# A Minimalist Analysis of Negative Concord in Northern Peninsular Spanish 

BY<br>DANIEL VERGARA

B.A., University of Deusto, 2010
M.A., University of Illinois at Chicago, 2012

## THESIS

Submitted as partial fulfillment of the requirements for the degree of Doctor of Philosophy in Hispanic Studies in the Graduate College of the University of Illinois at Chicago, 2017

Chicago, Illinois

Defense Committee:

Luis López, Chair and Advisor
Kara Morgan-Short
Jennifer Cabrelli-Amaro
Myriam Uribe-Etxebarria, University of the Basque Country
Susagna Tubau, Universitat Autònoma de Barcelona

## ACKNOWLEDGEMENTS

En primer lugar, pido disculpas por romper con las convenciones y escribir mi sección de agradecimientos en alternancia de código entre las tres lenguas en las que se basa esta tesis. En primer lugar, me gustaría dar las gracias a mi mentor, la persona que ha estado dirigiendo todo este embrollo lingüístico: Luis López. Agradezco muchísimo tu confianza y apoyo. Eres un ejemplo de esfuerzo, perseverancia y sobre todo un buen amigo. Gracias por inculcar en mí parte de tu conocimiento. También me gustaría agradecer la confianza que Kay González-Vilbazo depositó en los comienzos de este proyecto. Tu apoyo e inspiración hicieron que creyera en mi capacidad como lingüista. Gracias también a los demás miembros de mi comité. A Kara Morgan-Short por los comentarios, por acceder a reunirte conmigo al final de un largo día y por ser un ejemplo de profesionalidad académica. A Jennifer Cabrelli-Amaro por acceder a meterte en este lío nada más llegar a UIC, por los constantes comentarios y por tu contribución en esta tesis. A Susagna Tubau por ser la principal fuente de inspiración de esta tesis además de una excelente mentora. Eskerrik asko Myriam Uribe-Etxebarria zure laguntzarengatik, zure iruzkinengatik eta zure ezagutza linguistikoarengatik. También quiero dar las gracias a los profesores Kim Potowski, Richard Cameron y Rafael Nuñez-Cedeño por vuestra ayuda a lo largo de mi carrera académica. Gracias también a Liz Aguilar por todo el apoyo.

Muchas gracias a todos los miembros del UIC Bilingualism Research Laboratory por facilitar este proceso y por vuestros comentarios: Brad Hoot, Laura Bartlett-Hsu, Shane Ebert, Bryan Koronkiewcz, Jeanne Heil-Kang, Sarah Downey, Sergio Ramos, Lucía Badiola, Ariane Sande, Sara Stefanich, Rodrigo Delgado, Jon Robledo e Irati de Nicolás. I am especially grateful to the undergraduate research assistants Cody Lee and Yadira Montoya who worked very closely

## ACKNOWLEDGEMENTS (continued)

with me on this project. Thank you also to all my amazing colleagues at UIC. En especial, gracias a Bernard "Bernie" Issa y Bryan Koronkiewcz por ser estupendos compañeros.

Eskerrik asko nire lagun euskaldunei zuen laguntzarengatik eta nire esperimentuetan parte hartzeagatik. Eskerrik asko Xabier Ezkerro, Amaia Berruete, Iker Sainz, Jon Ander Schwarz, Irati Ugalde, Maialen Areitioaurtena, Maite Jaio, Gorka eta Ander Zabalo, Jon Ander Pérez, Álvaro González, Dani Escobar, Zaloa Liendo, Álvaro Andrés, Janire Sáez, Arrate Montoya, Itxaso Rodriguez, Janire Zalbidea, Deiene Zorriketa eta Lorena Sainz-Maza. Gracias también a Jon Franco por confiar en mí y por el Rock n' roll. A mi "Chicago crew" por su amistad, constancia y por hacer que mis años aquí pasasen volando: Yanire Márquez, Rubén Pérez, Miguel Rosas, Luis Giménez, Sarah Downey, el inolvidable Guillermo "Guille" Alvar, Alejandra Marín, Juan Arias, Rodrigo Delgado, Alicia Luque, Iván Carrera, Sara Fernández y Luiza Zanchi. Eskerrik asko Sergio Ramos por ser un gran amigo y una constante invariable. Gracias también a la fundadora de las noches de Rainbo: Inma Taboada, por ser una estupenda amiga, psicóloga y mentora.

Gracias Paul Soto por tu amistad y tu ayuda estadística desde la lejanía. Mi más sincera gratitud a mi novia Cristina Soto por creer en mí, por tu cariño, comprensión y todo lo demás. Por último, me gustaría dar las gracias a mi familia. Sobre todo, a mis padres Javier Vergara y María del Mar González, y a mi hermana Sonia Vergara, pero la verdad es que no puedo. A vosotros os lo debo todo. Vosotros habéis sido los inmovibles, los que me habéis apoyado y habéis creído en mí desde el principio, incluso en los peores momentos. A vosotros os dedico esta tesis.

## TABLE OF CONTENTS

1 INTRODUCTION ..... 1
1.1 The Problems ..... 1
1.1.1 The Status of Spanish N-words ..... 2
1.1.2 The Behavior of Spanish N -words in Preverbal Position ..... 3
1.1.3 NC as Long Distance Licensing ..... 4
1.2 Brief Overview of the System of Negation in English, Basque and Spanish ..... 7
1.2.1 Negation in English ..... 7
1.2.2 Negation in Basque ..... 9
1.2.3 Negation in Spanish ..... 10
1.3 Contextualizing the Problems ..... 12
1.4 Overview of the Dissertation ..... 13
2 BACKGROUND AND THEORETICAL FRAMEWORK ..... 15
2.1 Negation and Negative Concord: Core Concepts ..... 15
2.1.1 Negative Concord ..... 20
2.1.2 Neg-raising ..... 22
2.2 NegP/PolP as a Functional Projection and its Position in the Syntactic Structure ..... 23
2.3 Previous Analyses of NC and Assumptions about the Status of N-words ..... 25
2.3.1 N -words as Universal Quantifiers ..... 27
2.3.1.1 N -words as Negative Quantifiers ..... 27
2.3.1.2 N -words as Non-negative Universal Quantifiers ..... 33
2.3.2 N -words as Polarity Items ..... 38
2.3.3 N -words as Indefinites ..... 40
2.3.3.1 N -words as non-negative indefinites ..... 41
2.3.3.2 N -words as negative indefinites ..... 45
2.3.4 Lexical Ambiguity of N -words ..... 47
2.3.5 General Conclusions on Previous Analyses of NC. ..... 49
2.4 The Minimalist Program ..... 52
2.4.1 Core Syntactic Operations: Merge and Agree ..... 53
2.4.2 Pesetsky \& Torrego $(2004,2007)$ ..... 56
2.4.3 Phases in Chomsky $(2000,2001,2005)$ ..... 57
2.4.3.1 A Critical Summary of Phase Sliding (Gallego 2005, 2007) ..... 59

## TABLE OF CONTENTS (continued)

2.4.3.2 A Critical Summary of Gallego \& Uriagereka (2011) ..... 61
2.3.4.3 A Critical Summary of Bobaljik \& Wurmbrand (2013) ..... 67
2.3.4.4 Concluding Remarks ..... 73
2.5 Distributed Morphology ..... 74
2.5.1 PF operations: Impoverishment and Obliteration ..... 75
2.6 Code-switching and Negation ..... 77
2.6.1 Third Grammar Approaches to CS ..... 78
2.6.1.1 Poplack (1980) ..... 78
2.6.1.2 Joshi (1985) ..... 80
2.6.2 Generative Approaches to CS ..... 81
2.6.2.1 Mahootian (1993) ..... 81
2.6.2.2 Belazi, Rubin and Toribio (1994) ..... 82
2.6.3 Minimalist Approaches to CS ..... 84
2.6.3.1 MacSwan (1999) ..... 84
2.6.3.2 Gónzalez-Vilbazo \& López $(2012,2013)$ ..... 87
2.6.4 Concluding Remarks. ..... 89
2.7 Summary and Assumptions ..... 89
3 THE STATUS OF SPANISH N-WORDS: AN EXTENSION TO VALLDUVÍ (1994) ..... 91
3.1 Introduction ..... 91
3.2 Background ..... 93
3.2.1 Vallduví (1994) ..... 93
3.3 Research Questions, Hypotheses and Predictions ..... 97
3.4 Methods ..... 98
3.4.1 Participants ..... 98
3.4.2 Stimuli ..... 99
3.4.3 Procedure ..... 102
3.5 Results ..... 103
3.6 Discussion ..... 109
3.7 Conclusion. ..... 113
4 A CODE-SWITCHING ANALYSIS OF SPANISH N-WORDS IN PREVERBAL POSITION ..... 115

## TABLE OF CONTENTS (continued)

4.1 Introduction ..... 115
4.2 Theoretical Assumptions and Empirical Questions ..... 117
4.2.1 Syntactic Assumptions ..... 117
4.2.1.1 Negation in Basque and Spanish ..... 118
4.2.1.2 A Minimalist and DM Model of a Bilingual I-language. ..... 122
4.2.2 Predictions. ..... 123
4.3 Methods ..... 125
4.3.1 Participants ..... 125
4.3.2 Stimuli ..... 126
4.3.3 Procedure ..... 128
4.4 Results ..... 129
4.4.1 Results for Monolingual Structures ..... 129
4.4.2 Results for CS Structures ..... 131
4.5 Proposal and Analysis ..... 133
4.6 Conclusion. ..... 136
5 LICENSING N-WORDS ACROSS DOMAINS ..... 138
5.1 Introduction ..... 138
5.2 Theoretical Background ..... 141
5.2.1 Syntactic Assumptions ..... 141
5.2.2 The Locality Problem of NC. ..... 142
5.2.2.1 Embedded Subjunctive Clauses ..... 142
5.2.2.2 Infinitives ..... 146
5.2.2.3 Adjunct and Complex-NP clauses ..... 147
5.3 Predictions ..... 148
5.4 Methods ..... 149
5.4.1 Participants ..... 149
5.4.2 Stimuli ..... 150
5.4.3 Procedure ..... 153
5.4.4 Analysis ..... 155
5.5 Results ..... 156
5.5.1 Results for the Acceptability Judgment Task ..... 156

## TABLE OF CONTENTS (continued)

5.5.2 Results for the Forced-Choice Interpretation Task ..... 158
5.6 Discussion ..... 164
5.7 Conclusion ..... 170
6 A MINIMALIST ANALYSIS OF NC IN NORTHERN PENINSULAR SPANISH ..... 171
6.1 Syntactic Assumptions ..... 172
6.2 An Analysis of Preverbal N-words ..... 174
6.3 An Analysis of Postverbal N-words ..... 176
6.4 An Analysis of Embedded Indicative Clauses ..... 177
6.5 An Analysis of Infinitival Clauses ..... 180
6.6 An Analysis of Embedded Subjunctive Clauses with Preverbal N-words ..... 182
6.7 An Analysis of Embedded Subjunctive Clauses with Postverbal N-words ..... 186
7 GENERAL CONCLUSIONS AND IMPLICATIONS ..... 191
7.1 Summary of Conclusions from Previous Experiments ..... 191
7.2 Significance of Findings. ..... 192
7.3 Avenues for Future Research ..... 194
8 REFERENCES ..... 197
9 APPENDICES ..... 204
9.1 Appendix A. Linguistic Background Questionnaires ..... 204
9.2 Appendix B. Participant Language Background (Experiment in Chapter 3) ..... 216
9.3 Appendix C. Participant Language Background and BLP Scores (Experiments in Chapters 4-5) ..... 222
9.4 Appendix D. Sample Training and Practice ..... 228
9.5 Appendix E. Stimuli and Distractors for Experiment 1: The Status of Spanish N-words ..... 232
9.6 Appendix F. Stimuli and Distractors for Experiment 2: A Code-switching Analysis of Spanish N-words in Preverbal Position ..... 238
9.7 Appendix G. Stimuli and Distractors for Experiment 3: Licensing N-words across Domains ..... 242
VITA ..... 251

## LIST OF TABLES

CHAPTER 2: BACKGROUND AND THEORETICAL ASSUMPTIONS
Table I. Negative Elements, modified (Zeijlstra, 2004) ..... 18
Table II. Sample derivation of Obliteration rule Arregi \& Nevins (2007) ..... 76
CHAPTER 3: THE STATUS OF SPANISH N-WORDS: AN EXTENSION TO VALLDUVÍ (1994)
Table III. Comparison of NPIs, NQs and n-words across Diagnostics ..... 96
Table IV. Sample stimuli by diagnostic test, language and type of negative element ..... 101
Table V. Comparison of NQs, Spanish n-words and NPIs across Diagnostics ..... 108
CHAPTER 4: A CODE-SWITCHING ANALYSIS OF SPANISH N-WORDS ..... IN PREVERBAL POSITION
Table VI. Tubau's (2008) predictions for CS ..... 124
Table VII. Monolingual Stimuli by language: (B)asque and (S)panish ..... 127
Table VIII. Critical CS Stimuli ..... 127
Table IX. Monolingual Stimuli by language: (B)asque and (S)panish ..... 130
Table X. Summary of CS results ..... 131
Table XI. Predictions of the two different Obliteration rules ..... 135
CHAPTER 5: LICENSING N-WORDS ACROSS DOMAINS
Table XII. Sample critical stimuli. ..... 152
Table XIII. Results for monolingual Spanish structures by mood and position of n-word ..... 156
Table XIV. Results for the Multinomial Logistic Regression for Interpretation*Clause- type*Group ..... 159

## LIST OF FIGURES

CHAPTER 2: BACKGROUND AND THEORETICAL FRAMEWORK
Figure 1. Minimalist Model of Grammar ..... 53
CHAPTER 3: THE STATUS OF SPANISH N-WORDS: AN EXTENSION TO VALLDUVÍ (1994)
Figure 1. Average acceptability ratings for Diagnostic 1 ..... 103
Figure 2. Average acceptability ratings for Diagnostic 2 ..... 104
Figure 3. Average acceptability ratings for Diagnostic 3 ..... 105
Figure 4. Average acceptability ratings for Diagnostic 4 ..... 106
Figure 5. Average acceptability ratings for preverbal and postverbal n-words in Diagnostic 4 ..... 107
Figure 6. Average acceptability ratings for Diagnostic 5 ..... 108
CHAPTER 4: A CODE-SWITCHING ANALYSIS OF SPANISH N-WORDS IN PREVERBAL POSITION
Figure 1. Language dominance as a function of group according to the BLP. ..... 126
Figure 2. Experimental procedure. ..... 129
CHAPTER 5: LICENSING N-WORDS ACROSS DOMAINS
Figure 1. Language dominance as a function by group according to the BLP ..... 150
Figure 2. Experimental procedure. ..... 155
Figure 3. Average interpretation results for the Forced-choice Interpretation Task by clause-type161

## LIST OF ABBREVIATIONS

The following abbreviations are used in the example glosses:

| [neg] | negative feature |
| :--- | :--- |
| 1 | $1^{\text {st }}$ person |
| 2 | $2^{\text {nd }}$ person |
| 3 | $3^{\text {rd }}$ person |
| ABS | absolutive case |
| ACC | accusative case |
| ALL | allative case |
| AUX | auxiliary |
| Cl | clitic |
| COND | conditional tense |
| DAT | dative case |
| ERG | ergative case |
| F | feminine |
| FUT | future tense |
| IND | indicative mood |
| LOC | locative case |
| NEG | negation |
| PART | partitive case |
| PAST | past tense |
| PERF | perfective aspect |
| PL | plural |
| POSS | possessive |
| PROG | progressive aspect |
| PRSNT | present tense |
| Q | question particle |
| SG | singular |
| SUBJ | subjunctive mood |
| TRANS | transitive |

The following abbreviations are used in the text:

| $[\mathrm{iNeg}]$ | interpretable negative feature |
| :--- | :--- |
| $[\mathrm{uFoc}]$ | uninterpretable focus feature |
| $[\mathrm{uNeg}]$ | unvalued negative feature |
| $\ulcorner\mathrm{Op}$ | abstract negative operator |
| API | Affective Polarity Item |
| BLP | Bilingual Language Profile |

## LIST OF ABBREVIATIONS (Continued)

| C | complementizer head |
| :--- | :--- |
| CP | complementizer phrase |
| CLLD | Clitic Left Dislocation |
| CS | code-switching |
| DN | Double Negative |
| Foc | focus head |
| FocP | focus phrase |
| I-language | Internal language |
| iMood[ ] | interpretable unvalued mood feature |
| iMood[IND] | interpretable mood feature valued as indicative |
| iMood[SUBJ] | interpretable mood feature valued as subjunctive |
| iPol[neg] | interpretable polarity feature valued as negative |
| LF | Logical Form |
| NC | Negative Concord |
| NE | negative element |
| Neg | negative head |
| NegP | negative phrase |
| N | noun |
| NP | noun phrase |
| NPI | Negative Polarity Item |
| NQ | Negative Quantifier |
| P | prepositional head |
| PF | Phonological Form |
| PHH | Phase Head Hypothesis |
| PIC | Phase Impenetrability Condition |
| Pol | polarity head |
| PolP | polarity phrase |
| PP | prepositional phrase |
| QR | Quantifier Raising |
| SOT | Sequence of Tense |
| T | head of tense |
| TP | tense phrase |
| uPol[ ] | uninterpretable unvalued polarity feature |
| uPol[neg] | uninterpretable polarity feature valued as negative |
| $v^{*}$ | transitive verb |
| $v^{* P}$ | transitive verbal phrase |
| LP | sigma phrase |
|  |  |

## SUMMARY

This dissertation proposes new solutions to current and longstanding issues on the phenomenon of Negative Concord in Spanish. These issues concern the status of Spanish n-words, the behavior of Spanish n-words in preverbal position and the phenomenon of long distance licensing of n-words in embedded clauses. To this end, in this dissertation I employ original quantitative data from Basque, Spanish and English, which are languages that exhibit differences in the behavior of their negative elements; as well as data from Basque/Spanish code-switching to the study of the phenomenon of Negative Concord in Northern Peninsular Spanish. The data reported in this dissertation was collected from three different experiments.

The first experiment sheds light on the status of Spanish n-words by comparing their behavior to English Negative Quantifiers and Negative Polarity Items as well as Basque Negative Polarity Items. The results from this experiment provide experimental evidence that Spanish nwords are better characterized as indefinites that are negation dependent, as in Zeijlstra (2004) and Tubau (2008).

The second experiment examines the behavior of Spanish n-words in preverbal position using data from Basque/Spanish code-switching. The results from this experiment reveal that Spanish n-words in preverbal position receive their negativity through agreement with a covert [neg] feature, which surfaces overtly in code-switching. Based on these results, I put forward a proposal to account for the apparent negativity of n-words in preverbal position adopting a Distributed Morphology framework: the phonological realization of [neg] as the Spanish /no/ is deleted through an Obliteration rule which applies at the level of PF.

## SUMMARY (continued)

The last experiment provides empirical evidence that the phenomenon of Negative Concord in Spanish is a syntactic phenomenon and as such subject to locality conditions. This conclusion is reached by examining the acceptability as well as interpretation of embedded clauses, such as indicative, subjunctive, infinitive and adjunct and complex-NP, which contain cases of matrix negation followed by an embedded n -word.

The findings from these three experiments feed the Minimalist syntactic analysis of Negative Concord in Northern Peninsular Spanish developed in this dissertation. In this analysis, I assume the following feature composition of Spanish negative elements. Negative markers carry an interpretable polarity feature valued as negative, i.e., $\mathrm{iPol}[\mathrm{neg}]$, and head the PolP projection. On the other hand, n-words carry an uninterpretable unvalued polarity feature, i.e., uPol[ ], which is valued as negative through agreement with the feature $\mathrm{iPol}[\mathrm{neg}]$. Based on this assumption, I explain how the differences in the semantic interpretation as well as the acceptability/unacceptability of different embedded clauses containing negative elements can be accounted for in terms of structural differences and restrictions imposed by syntactic locality.

## 1 INTRODUCTION

Negation is a fundamental and universal operation in human languages and over the past decades it has occupied a central position in syntax and semantics. One of the relevant phenomena involving negation is Negative Concord (henceforth NC). NC is a phenomenon where even though more than one apparently negative element occurs in the sentence, negation is semantically interpreted only once. This is shown in the Spanish example in (1).
(1) Nadie compró nada nunca No one buy-3SG.PASt NOTHING NEVER 'No one bought anything ever'

NC has been profusely studied in the literature, particularly because "it exhibits morpho-syntactic behavior that should intuitively be ruled out by semantics" (Zeijlstra, 2004: 61). This dissertation focuses on three empirical problems that have been subject to debate in the literature of negation and NC. In this dissertation, I conduct three different experiments collecting data from both, monolingual and bilingual speakers in order to shed light into these problems and inform linguistic theory. In this chapter, I first describe the three empirical problems at hand. Then, I contextualize these problems and finally, I provide an overview of the way this dissertation is set up.

### 1.1 The Problems

This dissertation addresses three interrelated empirical problems that stand in the way of a syntactic analysis of Spanish NC. Briefly these are the status of Spanish n-words; the behavior of Spanish n-words in preverbal position; and the phenomenon of long distance licensing that appears to take place in Spanish NC.

### 1.1. 1 The Status of Spanish N-words

The status of Spanish n-words like nadie 'no one' or nada 'nothing' has been the subject of much debate in the literature on negation due to the following empirical problem: While preverbal n-words exhibit properties that are characteristic of inherently Negative Quantifiers (NQs) like no one (2), postverbal n-words exhibit properties that are characteristic of Negative Polarity Items (NPIs) ${ }^{1}$ like anybody (3).
(2) Nadie vio a Jon
no one saw Jon
'No one saw Jon'
(3) Jon no vio a nadie

Jon neg saw no one
'Jon didn't see anybody'

Currently, there are three competing hypotheses regarding the status of Spanish n-words: (i) nwords are inherently negative universal quantifiers just like English-type words (Zanuttini, 1991; Haegeman \& Zanuttini, 1991); (ii) n-words are like NPIs of the any-type (Bosque, 1980; Laka, 1990); (iii) n-words are non-negative indefinites without any quantificational value of their own (Zeijlstra, 2004; Tubau, 2008; Penka, 2011).

In order to shed light on the status of Spanish n-words, I carry out a conceptual replication and extension to Vallduvi (1994). To this end, I gather cross-linguistic data from English, Spanish and Basque on several diagnostic tests that have been previously used in the literature to study the semantic characterization of n-words and polarity items. My main goal is to determine the status and behavior of Spanish n-words as brought out by these diagnostic tests and to compare them to

[^0]the behavior of English NQs as well as English and Basque NPIs. The results from the study in chapter 3 show that Spanish n-words behave differently than English NQs as well as Basque and English NPIs. These findings point to a characterization of Spanish n-words as indefinites that are negation dependent (Zeijlstra, 2004; Tubau, 2008).

### 1.1.2 The Behavior of Spanish N-words in Preverbal Position

Once the status of Spanish $n$-words as non-negative indefinites has been established, another question emerges: If Spanish n-words are non-negative indefinites, how can we account for their negative behavior in preverbal position? Consider example (4).
(4) Nadie vino a la fiesta

No ONE come-past to the party
'No one came to the party'

Previous analyses of Spanish NC like that of Tubau (2008) have proposed that the negative interpretation of $n$-words in sentences such as (2) is due to a negative feature [neg] inside the NegP/PolP projection that is prevented from being phonologically realized by a specific Phonological Form (PF) operation called Obliteration. However, from the monolingual Spanish examples like the one in (4) it is difficult to determine whether the negativity of $n$-words is due to their inherent negativity or the covert [neg] feature [neg] proposed by Tubau (2008). Codeswitching, the use of two or more languages within the discourse by bilinguals (Poplack, 1980), has been recently used as a tool to observe and analyze interactions that are not directly visible in monolingual data (MacSwan, 1999; González-Vilbazo \& López, 2012; Koronkiewicz, 2014; among others). In order to shed light into this issue, in chapter 4 I collect acceptability judgments from Basque/Spanish code-switchers on sentences that contain preverbal negation. The data from

Basque/Spanish code-switching reveals that the otherwise covert [neg] feature is able to surface overtly in code-switching. This finding allows me to develop an analysis of preverbal n-words within the framework of Distributed Morphology.

### 1.1.3 NC as Long Distance Licensing

The final problem is regarding the phenomenon of long distance licensing that occurs in Spanish NC. Recent hypotheses on Spanish negation (Zeijlstra, 2004; Tubau, 2008) assume that NC is the result of the establishment of a syntactic relation (i.e., Agree) between the n-word and its licensor, the sentential negative marker. Consider the examples in (5).
$\begin{array}{ll}\text { a. } & \begin{array}{l}\text { Pedro no dijo nada } \\ \\ \text { Peter neG say-PASt.IND Nothing } \\ \text { 'Pedro didn't say anything' }\end{array} \\ \text { b. } & \text { *Pedro dijo nada } \\ & \begin{array}{l}\text { Peter say-Past.Ind nothing }\end{array} \\ & \text { 'Peter said anything' }\end{array}$

In (5a) the higher negative marker licenses the n-word nada 'nothing' by establishing an Agree relation with it. As a consequence, the sentence in (5a) is interpreted as negative by Spanish speakers. On the contrary, in (5b) Agree fails to obtain due to the absence of the negative marker. As a result, the postverbal n-word remains unlicensed and the sentence becomes ungrammatical. However, if NC is truly the result of a syntactic operation, then it should be subject to syntactic constrains such as locality. This imposes a restriction on syntactic operations such as Move or Agree: these operations can only be allowed if they occur within the same syntactic domain. Chomsky (2000, 2001) refers to these syntactic domains as phases and advances a phase-based model of the locality of syntactic dependencies, where it is assumed that the derivation proceeds
cyclically on a phase-by-phase basis. Thus, after the content of a phase or domain is sent to the interfaces, its parts become inaccessible to the rest of the derivation. Typically, the $v^{\prime}$ and $\mathrm{C}^{\prime}$ domains are considered to be phases. Thus, if this holds true, NC should not be allowed if the two participating elements are in different syntactic domains. As a consequence, we should expect to observe locality effects in sentences like (6a) and (6b).
(6) a. Pedro no dijo [CP que nadie había llamado]

Peter neg say-past.ind that no one had called
DN: 'It is not the case that Peter said that no one had called'
*NC: 'It is not the case that Peter said that someone had called'
b. Pedro no dijo [cР que su hermano había llamado]

Peter neg say-past.ind that his brother had called 'Peter didn't say that his brother had called'

The fact that in (6a) the only available interpretation is the Double Negative one (henceforth, DN) and not the NC one straightforwardly illustrates the effect of locality on NC. In (6a) the NC relation between the negative marker and the n-word cannot be established because they are in two different syntactic domains, the matrix clause and the embedded clause respectively. A consequence of the non-application of NC is that each negative component in (6a) will be interpreted once in their respective domain. This will yield the DN interpretation that is found for these sentences. Similarly, the meaning of (6b) is not "Peter said that his brother had not called", this is because the [neg] in the matrix clause cannot be interpreted as having scope over the verb inside a different domain (i.e., the embedded clause). From the examples in (6a-b) it can be concluded that NC seems to respect locality. However, in the literature on the phenomenon of NC there are examples in which NC does not seem to be subject to locality conditions. These are embedded subjunctive clauses (cf. Bosque, 1980; Haegeman, 1995; Herburger, 2001), see (7).

Nadie te dijo que trajeras nada no one Cl.dat say-past.ind that bring-past.subj nothing 'No one told you to bring anything'

Notice the similarities between the main sentence in (5a) and the subordinate sentence in (7). In both cases NC seems to obtain yielding a single negative interpretation. The difference between (5a) and (7) is that in (5a) the NC relation does not violate locality, whereas in (7) the NC relation between the higher n -word and the lower one does, mainly because it is established across two different domains. Despite this violation, these sentences are completely acceptable to all speakers of Spanish. The apparent transparency of subjunctive clauses, in contrast to indicative ones, has posed a challenge to advocators of a theory of NC in terms of Agree (Zeijlstra, 2004; Tubau, 2008; Haegeman \& Lohndal, 2010) and has also been observed for different phenomena crosslinguistically (e.g., long distance reflexive binding, long distance movement, scope, NPI licensing, and others). This has lead researchers to conclude that NC is not a syntatic phenomenon but a semantic one (Ladusaw, 1979; van der Wouden \& Zwarts, 1993; Ginnakidou, 2000; Tonhauser, 2001; among others)

Recently, three competing syntactic approaches have emerged in the literature to account for the transparency/opacity of subjunctive versus indicative clauses: (i) Gallego $(2005,2007)$ who proposes that embedded subjunctive clauses undergo a process called Phase Sliding where the $v^{*} \mathrm{P}$ phase is 'pushed up' creating a hybrid label $v^{*} / \mathrm{T}$. Thus, all the phase phenomena that would otherwise occur at the $\mathrm{v}^{*} \mathrm{P}$ phase take place in the $\mathrm{v}^{*} / \mathrm{TP}$ domain; (ii) Gallego \& Uriagereka (2011) who suggest that embedded indicative clauses become islands by means of a syntactic operation that turns them into a specifier and thus makes them opaque to external syntactic operations; and (ii) Bobaljik \& Wurmbrand (2013) who propose certain clauses establish a featural dependency with a higher clause which postpones the phasehood of the complement. This allows for syntactic
dependencies to span a larger structure than they normally would. With this information in mind, in chapter 5 I examine whether the phenomenon of NC is syntactic, and as such subject to locality by gathering empirical data on cases of long-distance licensing of n-words in indicative/subjunctive embedded clauses, infinitives, adjuncts and complex-NP clauses. The findings from chapter 5 serve as the basis for the Minimalist syntactic analysis of Spanish NC put forward in chapter 6.

This dissertation will propose new solutions to current and longstanding issues on the phenomenon of NC. In order to achieve this goal, I will employ original quantitative data from Basque, Spanish and English, which are languages that exhibit differences in the behavior of their negative elements. In addition, I will introduce language-contact data from Basque/Spanish codeswitching to the study of the phenomenon of NC , which to best of my knowledge, has not been done so far. The following paragraphs will be dedicated to introducing how the system of negation works in the languages relevant to this dissertation.

### 1.2 Brief Overview of the System of Negation in English, Basque and Spanish

### 1.2.1 Negation in English

In English, negation is expressed through a single sentential negative marker not or NQs like no one, nothing, never. This is illustrated in the examples in (8).
(8) a. I did not see John in Bilbao
b. No one saw John in Bilbao
c. I saw no one in Bilbao

English NQs are allowed to appear on their own (8b) and as fragment answers, see (9a) below. However, at least in Standard English, those sentences where NQs co-occur with the negative marker in postverbal position are only grammatical with a DN reading and not with a NC one, as shown in (9b). The only way for a sentence like (9b) to yield a NC reading is through the use of NPIs, compare (9b) to (10). Examples of English NPIs are anyone, anything and ever. In postverbal position English NPIs always need to be overtly c-commanded by a syntactic licenser, i.e., the negative marker.
(9) a. Who did you see in Bilbao? NO ONE
b. I did not see no one in Bilbao

DN: I saw someone in Bilbao
*NC: I didn't see anyone in Bilbao
(10) I did not see anyone in Bilbao.

Further, English NPIs are not allowed to precede the negative marker in preverbal position, as shown in (11).
(11) *Anyone didn't see John in Bilbao

Contrary to NQs, which have a negative meaning, English NPIs can be licensed in non-veridical contexts (see section 2.1), these are contexts such as questions and conditionals among others. As shown in (12), NPIs are licit in these contexts even though they are not being licensed by the negative marker.
(12) a. Did you bring anything?
b. If anyone comes, please let me know.

English NQs and NPIs will be discussed in more detail in section 2.1. In the next subsection, I will describe how the system of negation works in Basque.

### 1.2.2 Negation in Basque

Laka (1990) provides a description of the system of negation in Basque. In Basque, negation is expressed through a single sentential negative marker $e z$ 'not' or through the cooccurrence of NPIs with a negative marker. Examples of Basque NPIs are inor 'anyone', ezer 'anything' and inoiz 'ever'. In postverbal position Basque NPIs always need to be overtly ccommanded by a syntactic licenser, i.e., the negative marker, see (13).

```
(13) Ez nuen inor ikusi Bilbo -n
    nEg aUX-1SG.PAST anyone see Bilbao loc
    'I didn't see anyone in Bilbao'
```

Contrary to English NPIs, Basque NPIs in preverbal position always need to be accompanied by the negative marker, see the contrast between (10) from English and (14) from Basque. Normally Basque is a SOV language and therefore the complement-head order is the norm. However, in negative sentences like (13) and (14) the Basque negative head ez attracts the auxiliary zuen to the left of the main verb.
(14) Inork ez zuen ikusi Jon Bilbo -n anyone neg aux-3sG.past see John Bilbao loc
'No one saw John in Bilbao'

In addition, Laka (1990) shows that Basque NPIs, like English NPIs, are also licensed in nonveridical contexts such as questions and conditionals. As shown in (15), NPIs are licit in these contexts without the need of the negative marker as a licensor.
a. Ezer ekarri al duzu? anything bring $Q_{\text {aux-2SG.PRSNT }}$ 'Did you bring anything?'
b. Inor etortzen ba-da, esaiozu etxera joateko ANYONE Come if aux-3PL.PRSNT tell.him home-all to.go 'If anyone comes, tell him/her to go home'

Laka (1990) also notices a property characteristic of Basque NPIs: they are unable to occur on their own in fragment answers, see (16a). They are, however, able to appear in fragment answers if they precede the Basque negative marker, as shown in (16b).

| a. | Nor ikusi duzu what see aux-2SG.PRSNT | Bilbo -n? <br> Bilbao loc | *INOR <br> ANYONE |
| :---: | :---: | :---: | :---: |
| b. | Nor ikusi duzu | Bilbo -n? | INOR (B)EZ |
|  | what see aUX-2SG.PRSNT | Bilbao | ANYONE |
|  | 'Who did you see in Bilb | lbao? No o |  |

The next subsection will discuss how negation works in the target language of this dissertation: Spanish.

### 1.2.3 Negation in Spanish

In Spanish negation is expressed through the use of the sentential negative marker no 'not', see (17). The negative marker can be accompanied by n-words, such as nadie 'no one', nada 'nothing' or nunca 'never' in postverbal position, as shown in (18)
(17) No vi a Jon en Bilbao neg see-1 1 SG.past John in Bilbao
'I didn't see John in Bilbao'
(18) No vi a nadie en Bilbao
neg see-1sg.past no one in Bilbao
'I didn't see anyone in Bilbao'

In addition, Spanish n-words are allowed to occur on their own in preverbal position and fragment answers. However, unlike English NQs (see example (8c) above), Spanish n-words are not allowed in postverbal position in the absence of the negative marker, compare (19a-b) to (19c).
a. Nadie vio a Jon en Bilbao no one see-3Sg.past John in Bilbao 'No one saw John in Bilbao'
b. ¿Quién vio a Jon en Bilbao? NADIE who see.3SG.past John in Bilbao no one
'Who saw John in Bilbao? No one'
c. $\quad$ Yo vi a nadie en Bilbao I see-past no one in Bilbao 'I saw no one in Bilbao'

In addition, in Spanish n-words are not allowed to precede the negative marker in preverbal position, see (20).
*Nadie no vio a Jon en Bilbao
no one neg see-3SG.past John in Bilbao
'No one didn't see John in Bilbao'

Finally, contrary to English and Basque NPIs, Spanish n-words are restricted to negative contexts and cannot be licensed in questions and conditionals, as evidenced by the ungrammaticality of the examples in (21a-b).

[^1]The previous three subsections have been dedicated to providing an overview of the system of negation in English, Basque and Spanish. The examples presented here are relevant for the current dissertation and will be revisited and discussed in more detail in the following chapters.

### 1.3 Contextualizing the Problems

The current dissertation touches on a number of theoretical and empirical issues in the literature, and contributes to ongoing debates about the status and distribution of Spanish n-words as well as the underlying syntactic mechanisms that take place in the phenomenon of NC.

First, this dissertation contributes to the discussion of the status of Spanish n-words in the vast literature of Spanish negation and NC. As discussed in the following chapter, there is a significant debate on the status of n-words in languages like Spanish. Some analyses take these elements to be inherently negative quantifiers, while some others take them to be "English-like" NPIs. I argue that those approaches that treat Spanish n-words as non-negative indefinites such as those of Zeiljstra (2004), Tubau (2008) are better suited to explain the behavior of these elements in the structure as well as their distribution. Most importantly, I bring empirical evidence to bear on the issue rather than employing my own judgments. The results of this study will contribute to the ongoing debate regarding the status of Spanish n-words. Additionally, this will help me set the foundations for a syntactic analysis of Spanish NC. In the literature of negation, this type of quantitative data is scarce, and as such, I believe it will provide a valuable contribution to the debate.

Second, this project will examine the behavior of Spanish n-words in preverbal position. Treating Spanish n-words as non-negative is problematic, mostly because their negative behavior in preverbal position remains unexplained. Previous studies like that of Laka (1990) and Tubau
(2008) have argued that the reason why n-words behave negatively in preverbal position is due to a covert negative feature [neg] in the Neg-head that transmits its negative value to the $n$-word by means of syntactic agreement. Nonetheless, the existence of this "covert" negative feature is only a hypothesis and cannot be attested by only looking at monolingual data. Data from Basque/Spanish code-switching provide empirical evidence on the availability of this negative feature in the grammar of bilinguals and by extension, in the grammars of Spanish monolinguals as well. This will shed light on the mechanisms involved in the licensing of $n$-words in preverbal position in Spanish.

Third, this project will provide an analysis of NC in Northern Peninsular Spanish that is informed by data gathered from NC sentences in several embedded clauses, such as indicative, subjunctive, infinitive and adjunct and complex-NP. The study of the phenomenon of NC in these clauses will allow me shed light on the debate regarding the syntactic/semantic characterization of this phenomenon. Finally, the results from this experiment will feed the novel Minimalist analysis of the phenomenon of NC in Northern Peninsular Spanish developed in this dissertation.

### 1.4 Overview of the Dissertation

This dissertation is organized as follows. This first chapter has introduced and contextualized the three main problems regarding Spanish NC. Chapter 2 discusses the core concepts about negation, Negative Concord and a discussion of the previous analyses of this phenomenon. Chapter 2 also presents the main tenets of the Minimalist Program (Chomsky, 1993, 1995, 2000, 2001 and 2005) and the Distributed Morphology model (Halle \& Marantz, 1993; Embick \& Noyer, 2007). Each of the subsequent chapters presents three different experiments. Chapter 3 approaches the problem of the status of Spanish n-words. Chapter 4 provides an analysis
of n-words in preverbal position by examining this phenomenon through the lens of codeswitching. Chapter 5 examines the behavior of NC in different types of clauses. Each of these chapters include a review of the relevant literature as well as previous investigations on the topic, the specific problems or research questions relevant to each study, the methods, the results and analyses, and a discussion and conclusions section. Chapter 6 provides a preliminary Minimalist analysis of the phenomenon of NC in Northern Peninsular Spanish. Chapter 7 concludes this dissertation.

## 2 BACKGROUND AND THEORETICAL FRAMEWORK

### 2.1 Negation and Negative Concord: Core Concepts

Negation in languages can be expressed through the use of negative elements. The set of negative elements relevant to the present dissertation and that I will discuss in turn are: negative markers, NQs and n-words. Let me begin with the most basic type of negative element: the socalled negative markers (NEG). Although the syntactic position as well as the number of these negative markers varies from one language to another (see section 2.2. for further discussion), they are always used to indicate negation ${ }^{2}$. Common examples of negative markers are the English not, the Spanish no 'not' and the Basque $e z$ 'not'. In these languages, negation can be expressed by a single preverbal negative marker, see examples (1-3).
(1) John does not eat
(2) Juan no come

John NEG eat-prsnt
'John does not eat'
(3) Jon-ek ez du jaten

John Erg Neg aux-prsnt eat
'John does not eat'

[^2](i) ¡A cuántas personas (no) habrá engañado el presidente!

To how many people not aux-3sg.fut deceived the president 'So many people must have been deceived by the president!'

Semantically speaking, sentential negation takes scope over an entire proposition and changes its truth-value. Thus, in a sentence like (1) the English sentential negation not changes the truth-value of the entire proposition $p$ 'John eats' to the opposite one: $\neg p$ 'it is not the case that John eats'. The example in (4) provides the formal semantic notation of the English sentence in (1).

## (4) John does not eat <br> $\neg$ eat'(John)

According to Klima (1964) negation can be divided in two types: sentential negation and constituent negation. If the entire proposition falls under the scope of the negative marker as in (4) then this yields sentential negation. On the contrary, if the negative marker only takes scope over a specific constituent, then this yields constituent negation as seen in (5). However, for the present dissertation I will only focus on sentential negation.
(5) They found the body not [in the kitchen] $]_{\text {PP }}$ but in the bathroom

There is another class of negative elements called Negative Quantifiers (NQs). According to Zeijlstra (2004) these are inherently negative elements that negate a clause or constituent and also bind a variable within that same clause or constituent. The prototypical English NQs are nothing, no one, never, nowhere...etc.
(6) John ate nothing
$\neg \exists \mathrm{x}$. [thing $(\mathrm{x})^{\wedge}$ eat' $^{\prime}($ John, x$\left.)\right]$

N -words are a class of negative elements that display an asymmetry depending on their position in the syntactic structure. When these elements are in preverbal position, they behave like NQs, however, when they appear in postverbal position they always need to be licensed by sentential
negation and their interpretation is very similar to that of non-negative existential quantifiers, often referred to as Negative Polarity Items (NPIs) (Bosque, 1980; Laka, 1990; Giannakidou, 2000). In example (7a) the Spanish n-word nadie has a negative interpretation while nunca has a nonnegative existential one. On the contrary, in (7b) nunca is the element that bears the negative interpretation while nadie does not.
a. Nadie vino nunca

NO ONE COMe-pAST NEVER
'No one ever came'
b. Nunca vino nadie
never come-past no one
'No one ever came'

Finally, Zeijlstra (2004) defines another particular set of elements that do not have a strict negative reading but have a negative semantic connotation. Verbs such as deny or doubt, prepositions like without or unless and adjectives such as few show this type of behavior. Zeijlstra argues for the negative semantic denotation of these elements by pointing to their ability to be paraphrased by a combination of their positive counterparts and negation. Thus, in the same way a verb like doubt can be paraphrased as 'to not be sure' a preposition like without can be paraphrased as 'not with'. The four classes of negative elements are summarized in Table 1.

Table 1. Negative Elements, modified (Zeijlstra, 2004)

| Negative Element type | Properties | Examples |  |
| :--- | :--- | :--- | :--- |
| Negative markers | Introduce sentential or <br> constituent negation | Not (English) <br> No (Spanish) <br> Ez (Basque) |  |
| Negative Quantifiers | Quantifiers that always <br> introduce negation | Nothing <br> No one <br> Never | (English) |
| N-words | Elements licensed by <br> negation under specific <br> syntactic configurations | Nada <br> Nadie <br> Nunca$\quad$ (Spanish) |  |
| Semi-negatives | Verbs, prepositions or <br> adjectives that have a <br> negative denotation and that <br> can be paraphrased with a <br> negative sentence | Doubt (English) <br> Dudar (Spanish) | Without (English <br> Sin (Spanish) |
|  |  | Few (English) |  |

In addition, there is a particular set of elements that appear in negative contexts but its usage is not restricted to these contexts: NPIs. These elements can also appear in questions, conditionals, disjunctions and verbs of volition such as want, suggest, insist, modal verbs...etc. Examples of NPIs are the English anyone, anything, anywhere, ever and their Basque counterparts inor, ezer, inon, inoiz. Giannakidou (2002) explains the licensing requirements of these elements through non-veridicality. NPIs are normally licensed in non-veridical contexts, which are those contexts that do not ensure the truthfulness of a proposition in an individual's epistemic model (cf. Giannakidou, 2006). Examples of these contexts are given in (8) and (9), where the English and Basque NPIs are licensed in the context of an interrogative or an if-clause.
(8) a. Did anyone come?
b. If anyone comes, let me know
a. Inor etorri al da? anyone come Q aux-prsnt 'Did anyone come?'
b. Inor etortzen ba-da, abisatu anyone come-prog if aUX-3SG.PRSNT let.me.know 'If anyone comes, let me know'

A subset of these non-veridical contexts is negation, which introduces anti-veridicality or in other words, those contexts that entail the untruthfulness or falseness of a preposition in an individual's epistemic model (Giannakidou, 2006). Below, I provide formal definitions of the concepts of nonveridicality and anti-veridicality as found in Giannakidou (2006).
(10) Giannakidou's (Non)verdicality for propositional operators.
i. A propositional operator $F$ is veridical iff $F p$ entails or presupposes that $p$ is true in some individual's epistemic model $\mathrm{M}_{\mathrm{E}}(\mathrm{x})$; otherwise F is non-veridical.
ii. A nonveridical operator F is antiveridical iff Fp entails that not p in some individual's epistemic model: $\mathrm{Fp} \rightarrow$ not p in some $\mathrm{M}_{\mathrm{E}}(\mathrm{x})$.

However, unlike NPIs like the ones shown in examples (8-9) above, Spanish n-words only seem to be licensed in anti-veridical contexts, i.e., negation. This is shown in the examples in (11).
(11) a. No vino nadie a la fiesta de Juan neg come-past no one to the party of Juan 'No one came to Juan's party'
b. * Vino nadie a la fiesta de Juan come-past no one to the party of Juan 'No one came to Juan's party'
c. ${ }_{i}$ Vino nadie a la fiesta de Juan? come-past no one to the party of Juan 'Did no one come to Juan's party?'
d. *Si viene nadie, avísame if come-3sG.PRSNT No one let.me.know 'If anyone comes, let me know'

The examples above also show that, unlike NPIs, Spanish n-words are only allowed to appear in postverbal position if they are c-commanded by sentential negation or another n-word (Bosque, 1980; Laka, 1990; Zanuttini, 1996; Zeijlstra, 2004; Tubau, 2008).

### 2.1.1 Negative Concord

Another phenomenon that is relevant to the current discussion and in which n-words play a major role, is Negative Concord (NC). "NC is present in many languages and describes a phenomenon where negation is semantically interpreted once despite being apparently expressed by more than one element in the clause" (Tubau, 2008:5). This is illustrated in the Spanish and Italian examples in (12) and (13) respectively.
(12) El niño no come nada

The boy neg eat-pres nothing
'They boy doesn't eat anything'
(13) Il bambino non ha mangiato niente

The boy neg has eaten nothing
'The boy hasn't eaten anything'

The phenomenon of NC is in contrast with another phenomenon called Double Negation (DN). This term refers to the cancellation of two negative elements in the semantics, which results in an affirmative interpretation of the sentence. This is shown in the examples from Standard English in (14).
(14) No one didn't come to John's party

DN: 'Someone came to John's party'

While the sentence in (14) is acceptable in English and is interpreted as having a DN reading, the same sentence is unacceptable in Spanish. Compare (14) to the Spanish example in (15).
*Nadie no vino a la fiesta de Juan
NO ONE NEG come-3SG.PAST to the party of Juan
'No one didn't come to John's party

Although examples like (15) are unacceptable in Spanish, this does not necessarily mean that DN readings are impossible in Spanish. In fact, DN readings can be obtained in Spanish when providing responses to a previous statement that contains negation (Van der Sandt, 1989). See the example in $(16)^{3}$.
(16) SPEAKER: Creo que no viene nadie al concierto de esta noche 'I think/believe that no one is coming to tonight's concert'

ADDRESSEE: ${ }^{\text {No seas tan negativo! } ; \text { Yo no creo que no venga nadie al concierto! }}$
'Don't be so negative! I don't think that no one is coming to the concert' (= I think that someone is coming to the concert)

Going back to the phenomenon at hand, NC languages can be further divided in two types: those in which n-words need to obligatorily co-occur with a sentential negative marker; and those in which the co-occurrence of the negative marker with $n$-words is only obligatory when the $n$-words are not in preverbal position. These two types of NC languages are often referred to as Strict and Non-Strict NC languages. Compare example (17) from Greek, a Strict NC language, to (18) from Spanish, a Non-Strict NC language.

[^3](17) KANENAS *(dhen) ipe TIPOTA
no one not said nothing
'No one said anything'
(Example from Giannakidou, 2002: 20)
a. $\quad *(\mathrm{No})$ vio nada
neg saw nothing
'He didn't see anything'
b. Nadie (*no) aprobó el examen
no one neg passed the exam
'No one passed the exam'

### 2.1.2 Neg-raising

Another phenomenon relevant to NC is Neg-raising. This term was first introduced in (Horn, 1971) who noticed that certain kinds of predicates were subject to a very interesting phenomenon, compare (19a) to (19b).
(19) a. I don't think this course is interesting.
b. I think this course is not interesting.
(Collins \& Postal, 2014)

Collins \& Postal (2014) argue that the example in (19a) instantiates a kind of syntactic raising where the sentential negative marker raises from the embedded to the matrix clause without affecting the meaning of the sentence. This phenomenon is referred to as Neg-Raising. Horn (1971) also noticed that this semantic similarity between structures with negation in the embedded clause and those with negation in the matrix clause was found in many other languages. According to Horn (1971) and Collins \& Postal (2014) Neg-raising is a syntactic phenomenon of negation, where the sentential negative marker originates in the complement clause and is raised to the main clause through head-to-head movement. Additionally, it has been observed that this phenomenon
only affects certain kinds of predicates such as 'predicates of opinion and expectation, of intention and of perceptual approximation' (Collins \& Postal, 2014: 4). These types of predicates are socalled Classical Neg-raising predicates. Collins \& Postal's (2014) definition of Classical NegRaising is provided in (20).

## Classical NR

If NEG raises from one clause $B$ into the next clause above $B$, call it clause $A$, then the predicate of clause A is a CNRP.

The phenomenon of Neg-raising will be revisited in chapter 5, where I provide a syntactic analysis of Spanish $\mathrm{NC}^{4}$.

### 2.2 NegP/PolP as a Functional Projection and its Position in the Syntactic Structure

In Non-Strict NC languages like Spanish or Italian, the negative marker-or at least the negative feature, i.e., [neg], associated with it-has often been assumed to be part of its own functional category and host its own projection, NegP (Pollock, 1989; Zanuttini, 1991; Zeijlstra, 2004; Tubau, 2008). This NegP projection consists of a negative head $\mathrm{Neg}^{0}$, which hosts the negative feature that corresponds to the negative marker. Preverbal n-words on the other hand, are assumed to occupy the specifier position of NegP (Laka, 1990; Zanuttini, 1991; Zeijlstra, 2004; Tubau, 2008). Laka (1990) proposes that NegP is just a possible value of a broader syntactic category, namely Sigma Phrase ( $\Sigma \mathrm{P}$ ). This abstract category is assumed to host not only negation but also affirmative particles. The argument behind this proposal is that negation and affirmation

[^4]are in contrastive distribution both in English and Basque. Laka illustrates this with the English example in (21).
(21) a. I didn't, as Bill had thought, go to the store.
b. I did, as Bill had thought, go to the store.
(Laka 1990:95)

In order to reflect the polar nature of this syntactic category, the label Pol(arity)P (Ouhalla, 1990; Tubau, 2008; among others) will be used throughout this dissertation.

In the literature about negation the position, as well as the availability of PolP have been assumed to be subject to cross-linguistic variation (Laka, 1990; Zeijlstra, 2004; Tubau, 2008). For instance, in Spanish and Basque the PolP projection is assumed to be merged above TP. This is illustrated in the structure in (22).
(22) Position of PolP in Spanish and Basque.


There are multiple arguments in favor of the configuration shown above for Spanish and Basque (Laka, 1990; Zanuttini, 1991; Tubau, 2008). Although I will not discuss the specifics of these arguments in detail, I will explain the core idea behind this line of reasoning: in languages like

Spanish and Basque Neg c-commands Spec, TP, hence, the assumption that the NegP/PolP projection has to be somewhere above $\mathrm{TP}^{5}$.

Contrary to Spanish and Basque, the English Neg’ does not c-command TP (see Laka, 1990 for further argumentation and examples). Thus, the position of NegP/PolP in the syntactic structure is assumed to be lower than TP, namely above $v \mathrm{P}$ (Zeijlstra, 2004; Tubau, 2008). The position of the PolP projection in English is illustrated in (23).
(23) Position of PolP in English.


### 2.3 Previous Analyses of NC and Assumptions about the Status of N-words

The phenomenon of NC poses a problem for compositionality (Ladusaw, 1992; Giannakidou, 2000; Tubau, 2008), which requires a phrase to be constructed out of the meaning of its words. More specifically, the crucial problem that all analyses of NC have to account for is regarding the status of $n$-words: if it is assumed that $n$-words are inherently negative, then an explanation as to why negation is interpreted only once when n-words co-occur with sentential

[^5]negation or other $n$-words is required. On the other hand, if one assumes that n -words bear a nonnegative status and only the negative marker is inherently negative, then one needs to explain where the negative meaning in sentences like (18b) above comes from.

Another particular issue that has been thoroughly debated has been the quantificational force of $n$-words. Some defend that $n$-words are negative universal quantifiers (Zanuttini, 1991; Haegeman \& Zanuttini, 1991; Espinal, 2000; Ginnakidou, 2000), others argue that n-words are polarity items without any negative meaning of their own (Bosque, 1980; Laka, 1990; Progovac, 1994; Uribe-Etxebarria, 1994). Additionally, other scholars claim that n-words are indefinites with no quantificational force of their own (Ladusaw, 1992; Giannakidou \& Quer, 1997; Zeijlstra, 2004; and Tubau, 2008). Finally, there is another trend which defends that n-words are lexically ambiguous between NPIs and NQs (Herburger, 2001). In other words, they are NPIs when they appear in postverbal position and NQs when they appear in preverbal position. These approaches will be discussed in turn in subsections below.

First, I will start by discussing those approaches that treat n -words as universal quantifiers (see subsection 2.3.1.). These can be divided into two different categories: those that attribute a negative value to n -words and those that do not. These analyses are diametrically opposed to those discussed in subsection 2.3.3., which assume that $n$-words are non-negative and nonquantificational. Additionally, there are a number of intermediate approaches, namely, those that treat n-words as English-like NPIs (see subsection 2.3.2.) and those that propose that n-words are lexically ambiguous between NPIs and NQs (see subsection 2.3.4.).

### 2.3.1 N -words as Universal Quantifiers

This subsection will discuss those approaches that treat $n$-words as universal quantifiers regardless of the independent assumptions that each make regarding their inherent negativity.

### 2.3.1.1 N -words as Negative Quantifiers

This approach was introduced in Zanuttini (1991) and Haegeman \& Zanuttini (1991). In their analysis, they consider n-words to be universal quantifiers that are intrinsically negative. More precisely, they argue that n-words bear a [neg] formal feature that needs to be checked. The operation of feature checking is the motivation for movement in the Principles and Parameters approach. In the Minimalist Program this operation is reformulated in terms of Agree and feature valuation (see section 2.4.). Furthermore, they assume that this feature checking operation needs to take place between a specifier and a head in order to prevent the derivation from crashing. This operation takes place in order to satisfy the NEG Criterion, defined in (24), at LF.

## (24) The NEG Criterion

a. A NEG operator must be in a Spec-Head configuration with an $X^{0}[\mathrm{NEG}]$;
b. An $X^{0}[\mathrm{NEG}]$ must be in a Spec-Head configuration with a NEG operator.
(Haegeman \& Zanuttini, 1991: 244)

In this approach, n-words, need to move to $\mathrm{Spec}, \mathrm{NegP}$ - either overtly or covertly—in order to satisfy the NEG Criterion, i.e., before or after Spell-Out. Therefore, the NEG Criterion presented above accounts for the licensing process of n-words in the syntax. In order to account for the phenomenon of NC, Haegeman \& Zanuttini (1991) propose a negative absorption rule whereby
negative quantifiers amalgamate into a single negative quantifier under the scope of a single operator, which can bind $n$ number of variables. This rule is illustrated in (25).
(25) Negative Absorption rule:

$$
[\forall \mathrm{x} \neg][\forall \mathrm{y} \neg][\forall \mathrm{z} \neg] \rightarrow[\forall \mathrm{x}, \mathrm{y}, \mathrm{z}] \neg
$$

Haegeman \& Zanuttini's analysis of $n$-words can also account for fragment answers like the one in example (26). They suggest that this kind of example indicates that n -words are able to express negation by themselves.
(26) Question: ¿Quién vino?
'Who came?'
Answer: Nadie [neg]
'No one'

However, their assumption that n-words are inherently negative is not without problems. If we entertain the possibility that all n-words are inherently negative, then, we should expect them to be able to express negation on their own in all contexts. This, however, is disconfirmed by examples like the one in (27).

```
*Vio nada
    Saw-3SG.PASt nothing
```

    'He saw nothing'
    Another argument against Haegeman \& Zannuttini's approach is that their Negative Absorption Rule does not account for cases in which two n-words cancel each other out yielding a DN reading. This would predict that DN readings should never obtain in NC languages. However, Prieto \&

Espinal (2011), Tubau \& Espinal (2012) and Prieto et al. (2013) show quite the opposite: DN readings are possible in NC languages, as shown in the example in (28).
(28) Nadie cree que nunca hayas vivido en Perú
no one believe-3Sg.prsnt.Ind that never aux-3sg.prSnt.subj lived in Peru
'No one believes that you have never lived in Peru'
DN: 'It is not the case that someone believes that you never lived in Peru'

Additionally, those approaches that treat $n$-words as universal quantifiers have problems in accounting for examples like (29a) below, where preverbal n-words seem to behave like existential quantifiers. Notice that in (29) the n-word nadie can be replaced by the non-negative existential quantifier alguien.
a. No creo que nadie besara a Juan
neg believe-prsnt.ind that no one kiss-past.subj acc Juan
'I don't think that anyone kissed Juan'
b. No creo que alguien besara a Juan
neg believe-prsnt.Ind that someone kiss-past.subj acc Juan
'I don't think that someone kissed Juan'

Watanabe (2004) proposes a reformulation of Haegeman \& Zanuttini's (1991) approach and argues that NC can be reformulated in terms of feature checking. He claims that the negative feature carried by n-words needs to be checked against an uninterpretable focus feature that is inherent to these types of words. In his analysis, he argues that feature checking involves the copying of features onto the Probe and that this mechanism can also account for the phenomenon of Negative Absorption postulated by Haegeman \& Zanuttini (1991). In order to back up his argument he uses evidence from an analysis of elliptical answers in line with Merchant (2001).

For Watanabe (2004) an analysis that assumes that n-words are non-negative is problematic because it is unable to account for ellipsis phenomena. For example, in Giannakidou (2000) nwords in elliptical answers are taken to be non-negative. In fact, what contributes to the negative value of these types of clauses is a sentential negative marker that has been elided. This is illustrated in example (30) from Greek.
(30) $\mathrm{Q}: \mathrm{Ti}$ idhes?

What saw-2SG
'What did you see?'
A: TIPOTA <dhen idha>
nothing neg saw-1sG
'Nothing'
(Giannakidou, 2000)

According to Watanabe, Giannakidou's analysis faces a crucial problem: a well-known condition on ellipsis is that the deleted content has to be structurally similar to its antecedent. In the case of (30) the elided content is structurally different from its antecedent: there is a negative proposition at the ellipsis site that takes an affirmative open proposition as its antecedent. This would erroneously predict that a Spanish example such as (31) could be interpreted as (32a). This interpretation, however, is never obtained.
(31) Q: ¿Qué has visto? what AuX-2SG seen 'What have you seen?'

A: Una rata
A rat
'A rat'
a. <he viste> una rata

AUX-ISG seen a rat
'I've seen a rat'
b. <no he viste> una rata NEG AUX-1SG seen a rat 'I haven't seen a rat'

Watanabe (2004) further argues that for a preposition to take an affirmative proposition as its antecedent, the elided content cannot contribute to the negative meaning of the sentence even if it contains a negative marker. Under his analysis—which I will outline in the following paragraphsfeature copying makes the sentential negative marker inactive, which allows inherently negative n-words to co-occur with a sentential negative marker yielding an NC reading.

The feature copying proposed in Watanabe (2004) is very similar to the system of NegAbsorption proposed in Haegeman \& Zanuttini (1991), whereby the inherent negativity of multiple n -words is absorbed, yielding a single negative reading. Watanabe's feature-copying operation follows from Chomsky's (2001) notion of Agree. In Chomsky's system of Agree, a Probe containing a set of formal features searches the structure looking for a Goal with matching features. In addition, one of the requirements for Agree to obtain is that the Goal needs to be active and contain an uninterpretable feature (see subsections 2.4.1. and 2.4.2.).

In his analysis, Watanabe argues that the negative feature in both the sentential negative marker and the n-word is interpretable. Under this view, NC is the product of feature checking, whereby a feature H, the Probe, searches the structure looking for a feature F, the Goal, as shown in (33). After Agree has taken place, the feature F is copied onto the Probe H, as shown in (34).

$$
\begin{align*}
& \mathrm{H}[\ldots[\text { xр ...F...]...] }  \tag{33}\\
& {[\text { xр } \mathrm{H}+\mathrm{F}[\ldots[\text { xр...F...]...] }} \tag{34}
\end{align*}
$$

A consequence of (33) is that two negative features are copied onto the same Neg-head and this should result in a DN reading. However, Watanabe (2004) argues that since these two features are copied without any hierarchical order, they cancel each other out, thus yielding an NC reading.

If we apply Watanabe's analysis to Spanish for instance, in a sentence such as (35) below the sentential negative marker no, or the Probe, and the n -word nadie, the Goal, would both carry an interpretable negative feature and an uninterpretable focus feature [uFoc]. The [uFoc] feature would activate the n -word as a Goal. Watanabe's analysis for the sentence in (35) will proceed as follows. First, the [uFoc] feature activates the n-word as a Goal. At the same time, the [iNeg] feature of the n -word is copied onto the Probe, the negative marker; and the [uFoc] feature is then checked through Agree. The co-occurrence of these two [iNeg] features makes them cancel each other out and this yields a NC reading at LF. This is illustrated in (36).
(35) No ha venido nadie neg has come no one 'No one has come'


Even though Watanabe's (2004) analysis can offer an account for the cases in (35), this approach encounters several challenges when dealing with more complex examples of NC. For instance, it is not clear from his analysis what happens when there are more than two negative features in the sentence, as shown in (37).

> No ha venido nadie nunca NEG has come No one NEVER 'No one has come ever'

A consequence of Watanabe's feature-copying mechanism is that the negative feature of each nword would be copied onto the negative marker, i.e. the Probe. This would result in the negative marker containing three negative features. However, as Tubau (2008) points out, if two [iNeg] features cancel each other out under a specific syntactic configuration, then the third [iNeg] feature along with the [iNeg] feature of the n-word should yield a DN interpretation. This, however, is not the case and Watanabe (2004) does not provide an explanation for this phenomenon.

### 2.3.1.2 N -words as Non-negative Universal Quantifiers

The analysis of n-words as non-negative universal quantifiers was first presented in Giannakidou (2000) for Greek. She defines Greek n-words as polarity sensitive universal quantifiers that must be licensed by negation. These elements need to raise above negation through Quantifier Rising and this results in the universal quantifier having scope over negation. Additionally, Giannakidou (2000) argues that the negative value of the n-word comes solely from the sentential negative marker. For her, the phenomenon of NC is a case of negative polarity licensing and can be explained in terms of polarity sensitivity, which she defines as the semantic dependency that is established between polarity items and specific contexts. In other words, Polarity Items are elements that require of some property of the context in order to be interpreted. Giannakidou's definition of Polarity Items is provided in (38).

A linguistic expression $\alpha$ is a polarity item iff:
(i) The distribution of $\alpha$ is limited by sensitivity to some semantic property $\beta$ of the context of appearance; and
(ii) $\beta$ is (non) veridicality

Giannakidou (2000) discusses the two types of n-words that are found in Greek: emphatic and non-emphatic n-words. Both types of n-words can be licensed by negation, but only non-emphatics are allowed to appear in non-negative contexts. The examples in (39) illustrate the asymmetry between emphatic and non-emphatic $n$-words in negative (39a), interrogative (39b) and conditional (39c) contexts. Emphatics are represented in all capitals.

a. I Theodora dhen | enekrine |
| :--- |$\quad$ kanena/KANENA sxedhio

b. Pijes pote/*POTE sto Parisi?

Went-2SG n-ever in-the Paris
'Have you ever been to Paris?'
c. An dhis tin Elena puthena/*PUTHENA, na tis milisis
if see-2SG the Elena n-where subs her talk.2SG
'If you see Elena anywhere, talk to her'
(Giannakidou 2000: 467)

In order to account for the asymmetry above Giannakidou (2000) argues that emphatics are NPIs, while non-emphatics are Affective Polarity Items (APIs) ${ }^{6}$. The definitions of both types of polarity items as seen in Giannakidou (2000) are given in (40) and (41).

[^6](40) APIs: A polarity item $\alpha$ is affective iff it is licensed by nonveridical ${ }^{7}$ operators.
(41) NPIs: An affective polarity item $\alpha$ is a negative polarity item iff it is licensed by antiveridical operators.
(Giannakidou, 2000: 468)

Additionally, emphatics and non-emphatics show syntactic differences in Greek. While the licensing of emphatic n-words is clause-bound, the licensing of non-emphatics is not. Giannakidou claims that the asymmetry in the locality constraints of emphatics versus non-emphatics is due to emphatics being subject to Quantifier Raising. Giannakidou resorts to several tests like almost/absolutely modification (42) and restrictions on licensing donkey anaphora ${ }^{8}$ (43a-b) to show that Greek emphatics are strong quantificational elements.
(42) Dhen idha sxedhon (KANENAN/*kanenan)
neg see-1sg.past almost n-person
'I saw almost no one'
(Giannakidou, 2000: 472)
a. I fitites pu exun (kati ${ }_{1} /$ tipota $_{1}$ ) na pun, as to ${ }_{1}$ pun tora The students that have-3pL something/n-thing subj say-3pL, let it say-3pL now 'The students that have (something ${ }_{1} /$ anything $_{1}$ ) to say should say it ${ }_{1}$ now'
b. I fitites pu dhen exun TIPOTA ${ }_{1}$ na pun as min to ${ }_{1}$ pun tora '*The students that have nothing to say, let them not say it ${ }_{1}$ now'
(Giannakidou, 2000: 475)

The example in (42) shows that only emphatic n -words accept almost/absolutely modification in Greek. In addition, the comparison between (43a) and (43b) shows that while non-emphatics (43a)

[^7]license donkey anaphora, emphatics do not (43b). Giannakidou (2000) argues that this is due to the fact that non-emphatics can establish anaphoric links from a relative clause just like existential quantifiers. Emphatics, on the other hand, cannot bind variables outside their scope. From these tests, Giannakidou concludes that emphatic n-words in Greek are universal quantifiers. In addition, her analysis also accounts for data from Slavic, Hungarian and other Strict NC languages, where the negative marker needs to co-occur with n-words.

Nonetheless, Giannakidou's analysis is not able to successfully account for Non-Strict NC languages like Spanish, where n-words are allowed to occur on their own when they appear in preverbal position. She argues that this is due to the fact that n -words show parametric variation from one language to another and that NC is not a uniform phenomenon across languages. Given this, she claims that an analysis that treats n-words as semantically ambiguous between negative and non-negative elements is more suitable for these languages.

Zeijlstra (2004) argues that Giannakidou's assumption that emphatic n-words in Greek are both universal quantifiers and NPIs is problematic. For instance, it is not clear why Greek emphatics are not able to be licensed outside their clause, which is a property of NPIs in general. Giannakidou (2000) counter argues that emphatics are subject to clause-bound QR because they are universal quantifiers. Nonetheless, Zeijlstra (2004) points out that such an assumption does not explain why an emphatic in a sentence like (44) cannot be interpreted as a non-negative universal. In other words, the sentence in (44) can never be interpreted as 'It is not true that everybody came'.

[^8]Another problem that Zeijlstra (2004) points out is that Greek emphatics never obtain a universal quantifier interpretation in the absence of the negative marker. Zeijlstra further argues that if we take Greek emphatics to be non-negative universal quantifiers that are subject to QR , we should expect a sentence like (45) to be grammatical, this, however, is not the case. Thus, Zeiljstra (2004) claims that the argument that (45) is ungrammatical because emphatics are NPIs and need to be licensed by an anti-veridical operator is descriptively adequate but lacks explanatory motivation.
(45) *Irte KANENAS
came n-person
'Everybody came'
(Zeijlstra, 2004: 220)

A third problem that Zeijlstra points out is that if Greek emphatics are NPIs as Giannakidou (2000) claims, then it is not clear how they are able to occur as subjects and outside the scope of negation. Recall that a crucial condition on NPIs is that they must be c-commanded by the sentential negative marker at all times. However, if the emphatic is in subject position, this condition is not met. Giannakidou (2000) explains that emphatics are able to out scope negation because they undergo QR. Such an explanation is controversial because if emphatics are NPIs, then they should behave like other kinds of NPIs. Contrary to fact, emphatics occur in a position that is banned for other NPIs.

Finally, Giannakidou (2000) observes that only emphatic n-words can be used in fragment answers. She also assumes that fragment answers are the results of ellipsis (cf. Merchant 2004), where the negative meaning interpreted in the fragment answer comes from an elided negative marker, as shown in example (46) from Greek.

$$
\begin{array}{lll}
\text { a. } & \text { Ti idhes? } & \text { TIPOTA }  \tag{46}\\
& \text { what saw.2SG } & \text { n-thing } \\
& \text { 'What di you see? Nothing' }
\end{array}
$$

b. [NegP TIPOTAi dhen-[TP idhati]]

However, Zeijlstra (2004) observes that there are two crucial aspects that remain unexplained in Giannakidou's (2000) analysis of fragment answers. First, it is not clear why only emphatics are able to appear in these contexts; second, if non-emphatics are allowed to appear only in negative contexts, then they should also be allowed to occur in fragment answers where the negative marker has been elided. However, Giannakidou (2000) argues that in those cases where non-emphatics co-occur with the sentential negative marker, the negative marker needs to be stressed and this prevents its deletion through ellipsis.

### 2.3.2 N-words as Polarity Items

This type of analysis was first presented in Bosque (1980) and adopted in Laka (1990) and Uribe-Etxebarria (1994). They assume that n-words are NPIs, that is, existential expressions that are licensed by an operator of a specific semantic type. The negative marker, an operator under this approach, licenses n-words only in negative contexts.

Laka (1990) accounts for the occurrences of n-words in Non-Strict NC languages in terms of Sigma Phrase ( $\Sigma \mathrm{P}$ ) (see section 2.2. for a description of $\Sigma \mathrm{P}$ and its function in the syntactic structure). In this structure the negative marker occupies the head $\Sigma$ in cases where the n -word is postverbal. On the other hand, in cases where the $n$-word is preverbal the head is filled with a phonologically null operator and the n-word occupies the Spec, $\Sigma \mathrm{P}$ position. Laka postulates that this covert negative operator contributes to sentential negation in these cases, thus maintaining that
n-words are non-negative in every context. Laka's (1990) proposal for preverbal n-words is illustrated in (47).

(Modified from Laka, 1990: 127)

Additionally, Laka (1990) employs this covert negative operator to account for fragment answers containing n-words. In example (48) the covert negative operator is assigning its negative value to the n-word nadie 'no one' and as a result, the fragment answer is interpreted as negative. Herburger (2001) argues that this is problematic because the covert negative operator has to be restricted to particular instances where it is needed or nothing would prevent the interpretation of an affirmative sentence like Yo compro pan 'I buy bread' as negative.
(48) Question: ¿Quién vino?
'Who came?'
Answer: $\neg$ Op Nadie
'No one'

Zeijlstra (2004: 211) also points out that treating n-words like NPIs when they display a dissimilar behavior with other NPIs is very problematic because in this case, extra machinery is needed to account for the differences between the two. Moreover, in Laka's analysis it is not clear why the negative operator is allowed in some contexts but not in others. If the appearance of this covert
negative operator is unrestricted, then the sentence in (49) should be grammatical. This, however is not the case. Thus, one needs to assume restriction mechanisms that prevent this negative operator from incorrectly applying in those contexts where it is not needed.

* $\neg$ Op vino nadie
come no one
'No one came'

The arguments above show that postulating a negative operator is problematic for the NPI approach. If its use is not restricted to contexts in which it is needed, it overgenerates, incorrectly predicting that sentences like the one in (49) are grammatical when they are not.

### 2.3.3 N -words as Indefinites

Indefinites are defined as expressions with descriptive content but no quantificational force of their own (Kamp, 1981; Heim, 1982). An interesting characteristic of indefinites is that since they do not have any quantificational force, they can acquire it from other elements in the sentence. Thus, indefinites are free variables that can be bound by an operator.

It is this quantificational variability of Spanish n-words that has led Ladusaw $(1992,1994)$, Zeijlstra (2004), Tubau (2008) and Penka (2011) to propose analyses that stem from the assumption that n -words are indefinites that are negation dependent. One of the implications of treating n -words as indefinites of this type is that they always have to be licensed by an antiveridical operator. Within the indefinite approaches, there are two trains of thought: those who assume that n-words are negative indefinites and those who assume that they are non-negative indefinites.

### 2.3.3.1 N -words as non-negative indefinites

Ladusaw (1992, 1994) proposes that n-words are indefinites. In his approach, he differentiates two types of licensing for $n$-words: strong and weak licensing, which roughly correspond to the quantificational and the existential reading that $n$-words have depending on the particular context that they appear in. In strong licensing, the n-word is interpreted within the restriction of the negative operator. In weak licensing on the other hand, the n-word or the indefinite is interpreted within the scope of the negative operator. Notice that under Ladusaw's approach, both instances of licensing assume an abstract negative operator with inherent quantificational force. I will explain these two types of licensing in turn.

In strong licensing, the abstract negative operator undergoes QR and moves to a position over the n -word. This yields the universal interpretation of the n -word and licenses other n -words in the structure. See the Italian example in (50).
(50) $\quad[\mathrm{NegP} \neg O p$ Nessuno [tr ha telefonato]]
'No one has called'

In weak licensing, on the other hand, the indefinite is interpreted in the scope of a negative operator which is realized overtly as the Italian non 'not', see example (51) below. In (51) the negative operator is assigned a $\mathrm{Neg}^{0}$ position from where it is able to bind other n-words and have scope over them.
(51) $\quad\left[\mathrm{NegP}\left[\mathrm{Neg} ~ \neg O p_{\mathrm{i}}\right.\right.$ non [Tт ha telefonato nessuno $\left.\left.\left.\mathrm{i}_{\mathrm{i}}\right]\right]\right]$ 'He hasn't call anybody'

A more recent approach that considers n-words to be non-negative indefinites is the one in Zeijlstra (2004). In his analysis, he assumes that there are two types of negation, namely, semantic and
syntactic negation. Semantic negation is assumed to take place in DN languages like English, where either two NQs or a negative marker and a NQ yield a positive reading due to a one-to-one mapping between NQs and negative operators. On the other hand, syntactic negation is assumed to occur in NC languages like Spanish. In Spanish, n-words mark the presence of either an overtin the case of postverbal n-words-or covert negative operator-in the case of preverbal n-words. Under Zeijlstra's analysis, n-words carry an uninterpretable feature [uNeg] and negative markers and operators carry inherent negation [iNeg]. Syntactic negation under Zeijlstra's analysis is illustrated in example (52) from Italian.
 'No one called anybody'

In the absence of an overt sentential negative marker, the [uNeg] feature of the n-words in the leftperiphery of the clause triggers the abstract negative operator $\neg O p$. Then the [iNeg] feature of the negative operator can itself check the [uNeg] feature of postverbal n-words.

This analysis, however, suffers from the same main problem as the analysis in Laka (1990). Assuming an abstract negative operator in the structure is problematic, since the insertion of abstract structure should be assumed only in the face of considerable empirical evidence. In other words, it is not clear why sentences like (53) do not trigger the presence of a covert negative operator. If the application of this operator is not restricted by external context-related rules it overgenerates, yielding Spanish sentences like (53) grammatical when they are not.

[^9]Another analysis that treats $n$-words as non-negative indefinites is Tubau (2008). In her dissertation, Tubau analyzes NC as a syntax-morphology interface phenomenon. Following Zeijlstra (2004) she assumes that both English NQs as well as n-words in Non-Strict NC Romance varieties are non-negative indefinites. Furthermore, she claims that these elements are syntactically dependent on a negative syntactic terminal. She assumes a PolP projection which is merged at the edge of $v \mathrm{P}$ in English but on top of TP in Spanish. Regarding the feature structure of negative elements, she assumes that n-words carry an uninterpretable unvalued polarity feature uPol[ ] and that negative markers are the phonological realization of the feature iPol[neg]. Thus, under her view, several post-syntactic operations are responsible for the distribution of n-words with respect to the sentential negative marker in English and several Romance Languages. The two PF operations that prevent n -words from co-occurring with the sentential negative marker are Obliteration, in (54a), and Impoverishment, in (54b) and they are triggered when the languagespecific filter in (55) is violated. This filter prevents the accidental repetition of two adjacent negative features under the same projection.
a. $\quad[\mathrm{Neg}] \rightarrow \emptyset /[$ Pol:Neg] $\qquad$
b. $\quad[\mathrm{Pol}: \mathrm{Neg}] \rightarrow[\mathrm{Pol}:] /[\mathrm{Neg}]$ $\qquad$
*/negative marker/ /polarity morpheme/ if
(i) /negative marker/ and /polarity morpheme/ are adjacent, and
(ii) NEGATIVE MARKER and POLARITY MORPHEME agree.
(Modified from Tubau, 2008: 126)

While Impoverishment deletes the negative value of the polarity feature carried by an n-word, Obliteration deletes the syntactic terminal node [neg] that the negative marker carries from the structure. As a consequence, Impoverishment results in the insertion of a default form of the anytype; and Obliteration results in the sentential negative marker not being phonologically realized.

Tubau (2008) argues that those cases where the n-word appears on its own in preverbal position in English and Romance can be accounted for with (54) and (55). Take for instance the Spanish sentence in (56).
(56) Nadie compró fruta

NO ONE bought fruit
'No one bought fruit'

According to Tubau (2008), in a sentence like (54) the [neg] feature corresponding to the sentential negative marker is part of the syntactic structure. However, this results in a specific configuration where both the n-word and the [neg] feature of the negative marker are adjacent inside the same PolP projection. This configuration results in the violation of the filter in (55) and this triggers the deletion of the [neg] feature from the syntactic structure through Obliteration. This is illustrated in the structure in (57). Notice that this analysis does not suffer from the same problems as in Zeijlstra (2004) since it does not need to resort to the use of abstract negative operators.

$$
\begin{equation*}
\text { [PolP Nadie }{ }_{[P o l: n e g] ~}{ }^{\text {Neg' }} \text { [neģ] [TP compró fruta]] } \tag{57}
\end{equation*}
$$

At the same time, Tubau (2008) argues that the Impoverishment rule in (54b) can account for those English cases where more than one n-word is present in the structure. In the presence of an overt sentential negative marker, Impoverishment can apply to every indefinite on the structure, as illustrated in (58).
a. I did not say nothing to no one

NEG [Pol:neg] [Pol:neg]
b. After Impoverishment in (52b) $\rightarrow$ I did not say anything to anyone NEG [Pol: ] [Pol: ]

While Tubau's (2008) analysis is able to account for the distribution of n-words in English and some Non-Strict Romance languages, it is not free from shortcomings. First, there is no empirical reason to assume that English NQs are non-negative indefinites, especially when English NQs are able to express negation even in postverbal position, see (59).
(59) Question: Who did John see?

Answer: John saw no one

$$
\forall \mathrm{x} \text { [person }(\mathrm{x}) \rightarrow \neg \text { saw (John, } \mathrm{x})]
$$

Second, if English n-words are indefinites, then it is not clear where the universal quantificational force comes from in both preverbal and postverbal positions. This is shown in the semantic representation in (59).

### 2.3.3.2 N -words as negative indefinites

Another approach that takes n-words to be indefinites is that of Suñer (1995). However, contrary to the analyses that have been presented in the previous subsection, she argues that n words carry a [neg] feature which enables the n-word to move to Spec, NegP for feature checking purposes. This approach is similar to the one presented in section 2.3.1.2 with one exception, nwords are not treated as quantifiers under this approach.

In Suñer's analysis of Spanish n-words she also postulates the existence of a null operator which is located in Spec, NegP and c-commands the postverbal n-word. Postverbal n-words, on
the other hand, carry a [neg] feature that attracts the null operator to AgrP, where it can c-command both the n -word and the negative marker.

Espinal $(2000,2007)$ puts forward an account that treats Spanish and Catalan n-words 'as negative indefinites that are incorporated into a numeral meaning \|0\|’ (Tubau, 2008: 220). Additionally, Espinal assumes that Catalan and Spanish n-words are underspecified with regards to their quantificational force, their feature composition being the one in (60).
(60) $\quad[+\mathrm{Neg}, \alpha$ QF]
(Espinal, 2007:55)

Espinal (2007) further accounts for the distribution of $n$-words in Catalan and Spanish with the configurations shown in (61). The configuration in (61a) shows that when n-words are postverbal, the n-word moves to $\mathrm{Num}^{0}$, which attributes zero meaning to the n -word but is not enough to give it quantificational force. The D-head, then, requires either a non-veridical or anti-veridical external licenser, such as the Spanish no 'not. On the other hand, the configuration in (61b) shows that movement to the D-head is a Last Resort operation that happens when the n-words are preverbal. The n -word then moves to $\mathrm{Foc}^{0}$ for feature checking purposes and it is through this process that it receives quantificational force.


Espinal $(2000,2007)$ also provides an account to explain why Spanish n-words are unable to cooccur with the sentential negative marker in preverbal position. She argues that preverbal Spanish
n-words have a filled $D^{0}$ by virtue of moving to this position in their way to Foc ${ }^{0}$. The fact that the $\mathrm{D}^{0}$ position is occupied renders the insertion of the negative marker impossible. Thus, Espinal proposes that the quantificational force is achieved through movement of the n-word to $\mathrm{D}^{0}$.

However, in Espinal's analysis it is not clear why preverbal n-words have an occupied D ${ }^{0}$ and postverbal n-words do not. Alternatively, one could assume that the quantificational force attributed to n-words comes from an external source, namely, the FocP projection which has been assumed to be quantificational (see Rizzi, 1997). This could potentially explain why n-words behave like NQs when they appear in preverbal position: preverbal n-words move to FocP and since they are indefinites, they can inherit the quantificational force from Foc'.

### 2.3.4 Lexical Ambiguity of N -words

The final approach that I will discuss in this section is the one proposed by Herburger (2001), which assumes that n-words are lexically ambiguous or "hybrids" between NQs and NPIs. This narrows down the cases of NC with postverbal n-words to cases of NPI licensing. Herburger (2001) states that her hypothesis can also account for the cases in NC where a preverbal n-word licenses one or several postverbal n-words (NPIs under this approach). In order to support her hypothesis, she provides several ambiguous examples taken from Bosque (1980) where n-words can also be NPIs. These examples are shown in (62).
(62) a. Pedro compró el terreno sin contárselo a nadie 'Pedro bought the land without telling anybody'
b. Dudo que nadie sepa la solución
'I doubt that anyone knows the answer'
(Herburger, 2001)

According to Herburger, in the examples (62) where an n-word appears in postverbal position under the scope of an NPI-licensor like $\sin$ 'without' or dudo 'I doubt', the n-word can be interpreted as both an NPI and a NQ.

Additionally, Herburger argues that the fact that n-words can appear in preverbal position and in fragment answers is also evidence for a NQ-treatment of n-words. Further evidence in support of n-words being NQs in certain contexts comes from coordinated constructions with postverbal n-words, as illustrated in (63).
(63) Me caso contigo o con nadie
'I marry you or no one'
(Herburger 2001: 301)
Zeijlstra (2004) argues against Herburger's (2001) approach by pointing out that preverbal n-words in negative contexts do not behave like NPIs. Zeijlstra illustrates this with negative sentences containing a preverbal n-word in the embedded clause. He observes that NC readings are banned in these types of sentences. On the contrary, in Herburger's analysis a Spanish sentence like (64) is predicted to obtain a NC reading since the preverbal n-word is licensed by negation. This, however, is not the case. In fact, the only reading available for (64) is the DN one. This leads Zeijlstra to argue that the characterization of n-words as NPIs is overall problematic.

No se da
el caso de que nadie viaje
a Francia
NEG SE give-3SG.PRSNT.IND the case of that no one travel-3SG.PRSNT.SUbJ to France
DN: 'It is not the case that no one travels to France'
*NC: 'It is not the case that anyone travels to France'
(Zeijlstra, 2004: 233)

Zeijlstra also observes that Herburger's analysis faces problems when applied to Strict NC languages. For Herburger, the n -word res in example (65a) from Catalan is an NPI which is licensed by the negative marker. However, Zeijlstra points out that if this were the case, the Catalan
example in (65b) should also be grammatical since the negative marker should be able to license the NPI gaires coses. However, the ungrammaticality of (65b) shows that this is not the case.

| a. | Res no funciona |
| :---: | :---: |
|  | nothing neg works |
|  | 'Nothing works' |
| b. | *Gaires coses no funcionen many.npi things neg work |
|  | 'Many things don't work' |

(Zeijlstra, 2004: 235)

### 2.3.5 General Conclusions on Previous Analyses of NC

In previous subsections, I have discussed the phenomenon of NC, which involves the cooccurrence of multiple n-words along with the sentential negative marker or another preverbal nword. I have also defined and discussed the core elements that are at play in negative sentences, some of which are also core elements in NC phenomena. Additionally, I have also discussed the syntactic projection that has been generally assumed in the literature for negative elements, namely, NegP. Moreover, I have presented the syntactic position that NegP occupies in the structure of English, Basque and Spanish sentences: above $\nu \mathrm{P}$ for English and above TP for Basque and Spanish. The differences between the two types of NC-Strict NC and Non-Strict NC-have also been outlined. The difference between these two being the obligatoriness/non-obligatoriness of the sentential negative marker in preverbal contexts.

Further, I have also discussed a number of different approaches that have been proposed in the literature in order to account for the fact that in NC, even though negation is expressed by multiple elements in the sentence, it is interpreted only once. Each of the approaches discussed here takes different positions regarding: (i) the negativity of $n$-words; and (ii) the quantificational
status of n-words. Regarding their negativity, n-words have been described as either semantically negative or non-negative; and with respect to their quantificational force, as universal quantifiers, NPIs, indefinites and finally, elements that are lexically ambiguous between NPIs and NQs.

In the previous subsections, I have shown that none of the analyses of the phenomenon of NC are able to fully account for the characteristic behavior of n-words, especially when dealing with Non-Strict NC languages like Spanish. For instance, even though those approaches that treat n-words as negative universal quantifiers are able to successfully account for the behavior of preverbal n-words in Non-Strict NC languages, they have to resort to extra machinery like Negative Absorption to explain why multiple n-words only yield a single negative meaning in postverbal position.

Further, those approaches that treat n-words as non-negative universal quantifiers are not free from shortcomings either. Even though this type of analysis seems to be suitable to explain the behavior of Greek n-words, it does not explain why preverbal n-words cannot co-occur with the sentential negative marker when they appear in preverbal position. Giannakidou (2000) argues that this is due to the fact that n-words show parametric variation from one language to another and that NC is not a uniform phenomenon across languages. For this reason, she states that an analysis that treats n-words as lexically ambiguous between NQs and NPIs is more suited to account for the Spanish and Italian data.

On the other hand, the approach that treats $n$-words as NPIs provides a reasonable explanation as to why n-words, by virtue of being NPIs, need to be bound by negation or some other anti-veridical operator. Nonetheless, in order to explain those cases containing preverbal nwords, this approach needs to assume that an abstract negative operator is binding the n -word and providing it with its negative import. However, as we saw in section 2.3.2., postulating an abstract
negative operator is problematic. If the use of this operator is not restricted to those cases when it is needed, nothing will prevent it from incorrectly licensing a postverbal n-word in an otherwise affirmative sentence.

The approaches that treat n -words as negation-dependent indefinites fare much better at explaining the quantificational variability that n-words exhibit in Non-Strict NC languages like Spanish or Italian. Since n-words under this approach are considered to lack any quantificational force of their own, it follows that they must obtain it from some other element in the structure. In section 2.3.3., I discuss the proposal that $n$-words in preverbal position obtain their universal quantifier reading by virtue of moving to the FocP projection, which has often been assumed to bear quantificational force (see Rizzi, 1997; Franco \& Landa, 2006).

Finally, I have also discussed the approach that treats n-words as lexically ambiguous between NQs and NPIs. Although this approach is able to successfully account for multiple phenomena in Non-Strict NC languages like Spanish, it faces several problems when explaining the behavior of n-words in Non-Strict NC languages like Catalan. In addition, the main tenet of this approach is that speakers of Non-Strict NC languages would have two different lexical entries for the same word, the insertion of one entry over the other being dependent on the context. This is precisely the assumption that one would want to avoid since there aren't any independent empirical reasons to assume that speakers of Spanish and Italian make use of two homophonous but semantically different lexical entries for the same $n$-word ${ }^{9}$.

In conclusion, all of the approaches above face several problems. The three experiments in this dissertation will provide evidence in support that Spanish n-words are better characterized as

[^10]indefinites that are negation dependent. In other words, n-words are prototypical NPIs since they can only be licensed in anti-veridical contexts, i.e., negation.

### 2.4 The Minimalist Program

In this section I will discuss the basic tenets of the Minimalist Program (Chomsky, 1992, 1995, 1998, 2000, 2001) particularly focusing on (i) feature sharing and dependencies, (ii) SpellOut and (iii) phases. The assumptions from this section will feed into the analysis of Spanish NC developed in chapter 6.

In the Minimalist Program (Chomsky, 1992, 1995, 1998, 2000, 2001) linguistic expressions are generated in the linguistic module, the Language Faculty. These expressions are then articulated or pronounced by the articulatory organs at the phonological level (PF) and interpreted at the level of Logical Form (LF), where the structural part of the meaning of a linguistic expression is transformed to a set of interpretable instructions.

Another crucial component of the model of grammar proposed by Chomsky is the Lexicon, which consists of Lexical Items (LIs). LIs enter the syntactic derivation with a set of formal features. These features contain abstract information such as number, gender or case, among others, and they encode information at the syntactic level. Formal features can be either interpretable $[\mathrm{iF}]$ or uninterpretable $[\mathrm{uF}]$. Interpretable features are readable at the LF level, uninterpretable features, on the other hand, are not readable at LF or at the PF level. If an uninterpretable feature is transmitted to either of these two levels, the derivation will crash since such an action would violate the principle of Full Interpretation (Chomsky, 1995). This principle states that syntactic objects at PF and LF have to be fully interpretable and cannot contain any uninterpretable or unvalued feature. The Minimalist Model of Grammar is presented in Figure 1.

Figure 1. Minimalist Model of Grammar


## Lexicon

The derivation represented in Figure 1 would proceed as follows. LIs are introduced into the derivation in the form of features. At a certain point during the derivation the phonological features are separated from the formal and semantic features, this point is called Spell-Out. In Spell-Out, the phonological features are mapped onto PF, while the interpretable formal and semantic features are transferred to LF. After Spell-Out, syntactic operations can take place between the level of PF and LF; however, the syntactic operations that take place at either of these levels do not influence the ones that take place at the other.

### 2.4.1 Core Syntactic Operations: Merge and Agree

In the Minimalist Program, there are two main syntactic operations: Merge and Agree. There is, however, a third operation that can be derived from Merge: Move. These are the three main operations that I will use throughout my analysis.

Consider the first operation mentioned above: Merge, illustrated in the example (66a-c) below. This operation takes two LIs and combines them into a constituent that carries the same label as the dominating item. For example, a Spanish preposition ( P ) de merges with a noun Bilbao $(\mathrm{N})$ and creates a $\{\mathrm{P}, \mathrm{N}\}$ compound, also called a constituent, so that the label of the terminal node

P is also the label of the branching node. The newly formed constituent can either merge with a new head, i.e. the noun parque, and form a new constituent labeled N or can be merged with another constituent that is not a head like gran, still maintaining its label N. This operation takes place recurrently throughout the derivation.
(66) a. de Bilbao $=[\mathrm{p}$ de $[\mathrm{N}$ Bilbao $]]$
b. parque de Bilbao = [ N parque [ P de Bilbao $]$ ]
c. $\quad$ gran parque de Bilbao $=[\mathrm{N}$ gran [ N parque de Bilbao]] 'great park of Bilbao'

In addition, Chomsky (2001) distinguishes between two distinct types of Merge: External and Internal. External Merge involves those cases in which a constituent $\beta$ is not part of $\alpha$. On the other hand, if a constituent $\beta$ is part of $\alpha$, then we are dealing with Internal Merge, i.e., Move. These two types of Merge have different effects at the interfaces. As pointed out by Chomsky (2005:14): "External Merge correlates with argument structure, internal Merge with edge properties, scopal or discourse-related (new and old information, topic, etc.)".

The second syntactic operation is Agree. Agree is an operation whereby two features of the same type establish a relation. For instance, an LI with an uninterpretable feature, also called a probe, needs to check its feature against that of a goal with an interpretable feature in order for the sentence not to crash at the level of LF. This is represented in the example (67) that illustrates the operation of agree after subject movement to Spec, TP.
(67)


In (67) two LIs enter the derivation. The subject, with unvalued case and valued phi-features; and T, with valued [NOM] case and unvalued phi-features. At this point the unvalued [CASE] feature of the subject will be valued [NOM] by the Agree relation with the finite $T$, and the unvalued phifeatures of the latter will be valued by the subject. Therefore, Agree forms a two-way relation between two LIs that value each other's unvalued features. As phi-features are meaningless on verbs and Case has no meaning, all features except for the phi-features of the subject will be unreadable by the LF component (Chomsky, 1995, 2000).

As I have already mentioned, for the purposes of this dissertation I will make use of Baker's (2013) definition of Agree in (68).
(68) F agrees with XP only if F c-commands XP or XP c-commands F; and either F or XP have unvalued features.
(Modified from Baker, 2013: 23)

Therefore, a functional head F with unvalued features can only agree with the specifier XP if either node c-commands or is c-commanded by the other.

A variation of the aforementioned Agree operation, i.e., Multiple Agree ${ }^{10}$, was originally introduced by Carstens (2001) and was later adopted in Chomsky (2005). Multiple Agree applies to those cases in which Agree targets multiple elements in the structure. More specifically, one or more Probes can establish an Agree relation with a Goal as long as there is no other intervening Goal with matching features.

There is also a third operation: Move. Under the Minimalist Program move is seen as a combination of Merge and Agree. As previously discussed, in Chomsky (2005) this operation is referred to as Internal Merge. Move is an operation in which $\alpha$ is a LI from a constituent $\beta$ that raises to the specifier position of $\beta$, where it values an unvalued feature of $\beta$, as shown in (69).

$$
\begin{equation*}
\gamma=\left[\alpha, \beta\left[\left(\ldots t_{\alpha} \ldots\right]\right)\right] \tag{69}
\end{equation*}
$$

### 2.4.2 Pesetsky \& Torrego $(\mathbf{2 0 0 4}, 2007)$

Pesetsky \& Torrego $(2004,2007)$ propose that agreement is better understood as an instance of feature-sharing. Pesetsky \& Torrego $(2004,2007)$ argue that agreement occurs when the unvalued feature of a Probe scans its c-command domain searching for a Goal with a matching valued feature. Further, they claim that the unvalued feature of the Probe is replaced with the valued feature of the Goal through Agree. Pesetsky \& Torrego's (2007) feature-sharing version of Agree is outlined in (70).

[^11](70) Pesetsky \& Torrego's (2007:268) Agree (feature-sharing version)
(i) An unvalued feature F (a probe) on a head H at syntactic location $\alpha(\mathrm{F} \alpha$ ) scans its c command domain for another instance of F (a goal) at location $\beta(\mathrm{F} \beta)$ with which to agree.
(ii) Replace $\mathrm{F} \alpha$ with $\mathrm{F} \beta$, so that the same feature is present in both locations.

Pesetsky \& Torrego's system allows us to view Agree as an operation that connects an interpretable/uninterpretable component $[\mathrm{i} / \mathrm{u}$ ] with a value component [val] to create a full-fledged feature via one of the configurations in (71).

Agree
a. Fu u[val] $\ldots \mathrm{Fi}$ i ]
Fu[val] ... Fi[val]
b. Fi[val] ... Fu[ ]
Fi[val] ... Fu[val]

Assuming that unvalued features act as Probes, two kinds of features can probe for a Goal under Pesetsky \& Torrego's system: interpretable and uninterpretable unvalued features. Pesetsky \& Torrego follow Chomsky's $(2000,2001)$ claim that at least one uninterpretable feature needs to establish an Agree relation with an interpretable matching feature.

Baker's (2013) notions on the directionality of Agree, Pesetsky \& Torrego's $(2004,2007)$ feature-sharing version of Agree will be revisited in section 5, where I propose a syntactic analysis of Spanish NC.

### 2.4.3 Phases in Chomsky (2000, 2001, 2005)

Within the Minimalist Framework phases are subarrays of the numeration, thus, under the theory of phases syntactic information is delivered to the interfaces in a dynamic or cyclic fashion.

Therefore, phases (Chomsky 2000, 2001 and 2005) impose restrictions on syntactic operations such as Merge or Agree so that these operations remain strictly local. In other words, phases ban those syntactic operations that occur between two elements that are in different syntactic domains. Thus, under Chomsky's $(2000,2001)$ phase-based model the derivation needs to proceed cyclically on a phase-by-phase basis. A consequence of this is that after the content of a phase or domain is sent to Spell-Out, its parts become inaccessible to the rest of the derivation, as formalized in the Phrase Impenetrability Condition (PIC) in (72).

## (72) Phase Impenetrability Condition

In phase $\alpha$ with head $H$, the domain of $H$ is not accessible to operations outside $\alpha$, only H and its edge are accessible to such operations.
(Chomsky, 2000:108)

In Chomsky (2005) only C and $v^{*}$ are considered to be strong phases, $v^{*}$ being 'the functional head associated with full argument structure, transitive and experiencer construction' (Chomsky, 2005: 9). Chomsky argues that the T-head does not constitute a phase because its phi-features are inherited from C'. This is due to the fact that the phi-features of T depend on its selection by C . On the other hand, if T is selected by V it would lack both phi-features as well as tense. For this reason, unaccusative and passive structures can never be strong phases because they lack external arguments. Chomsky (2005) further assumes that cyclic Spell-Out is strictly restricted to the strong phase level. This means that if any of the properties of an element inside a potential phase are not satisfied before the phase is sent to Spell-Out, the derivation crashes. This follows from the PIC: an element inside a phase can no longer be accessed once it has been sent out to the interfaces.

Chomsky's notion of phase has been a very controversial topic in the literature, mostly due to the fact that phases are too restrictive and there are several syntactic phenomena in natural languages that seem to allow for some slippage in otherwise well-established cyclic domains. In order to account for this, a number of different approaches have emerged in the literature including Gallego (2005, 2007), Gallego \& Uriagereka (2011) and Bobaljik \& Wurmbrand (2013). These approaches will be discussed in turn in the following subsections.

### 2.4.3.1 A Critical Summary of Phase Sliding (Gallego 2005, 2007)

Gallego $(2005,2007)$ introduces the term Phase Sliding to account for the observation that in Null Subject Languages like Spanish and Italian that show $v^{*}$-to-T movement, T inherits edge features from $v^{*}$. Gallego's claim stem from the fact that in languages like Spanish Spec, TP seems to have both A and A-bar features. Gallego $(2005,2007)$ attributes this duality of $T$ to the fact that it has both, phi-features-responsible for its A-properties-as well as edge features that are inherited from $v^{*}$, which are responsible for its A-bar properties.

Gallego $(2005,2007)$ further assumes that $v^{*}$-to-T movement is a syntactic operation and that this extends the $v^{*} \mathrm{P}$ phase all the way up to TP , which causes reprojection. This creates the hybrid label $v^{*} / \mathrm{T}$ which becomes a phase through Phase Sliding and triggers all operations. A consequence of this, is that now $v^{*} \mathrm{P}$ and $\mathrm{C}-v^{*} / \mathrm{T}$ will be sent to the interfaces at different stages in the derivation. The structural representation of Gallego's $(2005,2007)$ Phase Sliding is provided in $(73)^{11}$.

[^12]
(Tubau, 2008: 227)

Tubau (2008) assumes Gallego's $(2005$, 2007) Phase Sliding proposal to account for the phenomenon of long-distance licensing that takes place in embedded subjunctive clauses in NonStrict NC languages (see section 1.1.3). Like Zeijlstra (2004) she assumes that NC is a form of syntactic agreement, whereby the unvalued feature of an n-word is checked against the valued feature of the sentential negative marker. If this holds true, and NC can be described in terms of syntactic agreement, Gallego's $(2005,2007)$ proposal is not enough to explain the reasons behind the sentential negative marker in the head of PolP being able to license a postverbal n-word in Spec, $v^{*}$ P. Recall, that under Gallego's account, $v^{*} \mathrm{P}$ constitutes a phase, thus, the elements inside of it become inaccessible to the PolP projection. As a consequence, syntactic agreement between the valued negative feature in Pol' and the unvalued feature of postverbal n-words could never obtain since they are in different cyclic domains, i.e., phases.

In conclusion, even though Gallego's $(2005,2007)$ proposal is able to explain why Spec, TP in Spanish displays both A and A-bar properties, as well as the fact that most Null Subject Languages lack VP ellipsis (see Gallego, 2007 for further argumentation), it does not suffice to account for the phenomenon of Spanish NC.

### 2.4.3.2 A Critical Summary of Gallego \& Uriagereka (2011)

Gallego \& Uriagereka (2011) discuss the contrast observed between embedded indicative clauses in Spanish and Russian. Based on observations by Torrego \& Uriagereka (1992), Gallego \& Uriagereka claim that in many languages embedded indicative clauses present certain syntactic singularities akin to main indicative clauses. However, one of the most salient differences between Romance and Slavic languages lies in the availability of extraction. While movement out of the embedded clause is allowed in Romance, this movement is banned in Slavic languages. This asymmetry is show in example (74) and (75) ${ }^{12}$.

| ¿Quién $n_{i}$ dijo Mourinho [cP que $\mathrm{t}_{\mathrm{i}}$ arbitraría el partido]? | (Spanish) |
| :--- | :--- | :--- |
| Who say-past.Ind Mourinho that referee-cond.IND the game |  |
| 'Who said Mourinho would referee the game?' |  |
| ?/*Kogo ty dumaes, [cP cto Masha ljubit]? | (Russian) |
| Who-dat you believe that Masha loves-IND |  |
| 'Who do you think that Masha loves? |  |

Extraction analyses have always posited that while this process is possible from those domains that occupy the complement or Internal Argument position, it is not possible from adjunct and specifiers. The relevant question for their discussion is the following: if complements are usually transparent, what kind of complements are indicative clauses (if they are complements at all)?

[^13]Gallego \& Uriagereka attribute this difference in transparency to the subjunctive/indicative distinction and discuss several relevant phenomena in support of this distinction. The first involves what is referred to as Sequence of Tense (SOT). As shown in (76), subjunctives need to share their temporal features, i.e., T , with the matrix verb; indicatives, on the other hand, show much more independence (77).
(76) Platón quiere [cp que Aristóteles \{lea/*leyera\} a Sócrates] 'Plato wants Aristotle to read Socrates'
(77) Platón dice [cp que Aristóteles \{lee/leía \} a Sócrates]
'Plato says that Aristotle reads/read Socrates'

Gallego \& Uriagereka (2011) further argue that other phenomena such as Quantifier Raising (QR) are also sensitive to verbal inflection. The examples in (78) are taken from Gallego \& Uriagereka (2011: 190) and show that subjunctive clauses are more allowing of QR (78b) than indicative ones (78a).
(78) a. Alguien piensa [cP que ha sido solucionado todo problema] 'Someone thinks that every problem has been solved' *todo problema $>$ alguien
b. Alguien desea [cР que sea solucionado todo problema]
'Someone desires for every problem to be solved' ?todo problema > alguien

Gallego \& Uriagereka argue that the phenomena presented above can be accounted for by Torrego \& Uriagereka's (1992) proposal, which states that embedded indicative clauses are in fact adjuncts paratactically related to a null pronominal, and that embedded subjunctive clauses are in fact real arguments to the main verb. Their proposal is outlined in (79).
(79) a. [vP... V ... [DP pro] [cp Vindicative]]
b. [vp... V $\ldots$ [CP $\left.\left.\mathrm{V}_{\text {SUbjunctive }}\right]\right]$

Nonetheless, the authors argue that Torrego \& Uriagereka's account might be challenged by examples of long-distance movement such as the ones in (80): If embedded indicative clauses are independent clauses associated with a null pronominal, then it is not very clear why the wh-phrase in (80) is able to raise from the embedded indicative clause to the matrix one.


In order to account for the asymmetry observed between indicative/subjunctive clauses across the phenomena described above as well as the examples of long-distance movement like (80), Gallego \& Uriagereka propose the following analysis. They claim that the distinction between indicative and subjunctive has a structural correlate; more specifically they argue that indicative arguments are similar to "event participants" (i.e., adjuncts of the verb), while subjunctives are "event articulators" (i.e. direct arguments of the verb). In order to account for this structural difference, Gallego \& Uriagereka propose that embedded indicative clauses are the result of the operation of Undermerge (Pesetsky, 2007), shown in (81)
(81) a.

b.


The syntactic tree in (81b) illustrates the outcome of Undermerge. Starting with (81a) X probes inside its complement SY and finds Y , then in (81b) X is merged with Y . What the operation of Undermerge does is to turn SY, the complement of $X$ in (81a) into a specifier. As a result, since specifiers are known to be opaque, the SY in (81b) becomes an island. This operation is very
similar to External Merge (EM) with the exception that Undermerge affects those elements that are already in the derivation. Gallego \& Uriagereka further explain that the difference between indicative clauses and subjunctive clauses depends on whether the application of Undermerge takes place. In other words, if an argument is merged with V , this gives raise to a subjunctive clause. If nothing else happens, this argument will still act as a complement of V. If in the course of the derivation this argument is able to be recombined with V by means of Undermerge, the reduplication of this argument will result in clitization. As a result, V will now become the complement of a clitic and the indicative CP will become a specifier, an island for all intents and purposes.

Nevertheless, Gallego \& Uriagereka acknowledge that there is no way of preventing Undermerge from applying to all contexts that involve complementation. In order to avoid this, the authors propose the following restrictions to the operation of Undermerge:
(82) a. It might not apply (in the case of event articulators)
b. The fact that there might be phonological conditions between the probe $X$ and the goal $Y$ does not necessarily mean that they will be satisfied in terms of Undermerge.
c. Even if there has already been Undermerge of $Y$ with $X$, the constituents of SY can still escape the aforementioned island restrictions by "returning to the surface"
(Gallego \& Uriagereka, 2011: 196, my own translation)

Thus, the authors claim that the differences regarding extraction between Russian and Spanish can be parameterized in terms of the availability/non-availability of restriction $c$ above. In other words, while Spanish constituents can escape the CP domain before Undermerge takes place "returning
to the surface", Russian constituents cannot. Thus at least for Russian, islands at LF always emerge.

The analysis proposed by Gallego \& Uriagereka seems to account for the NC data presented in (83a) and (83b) below, assuming that the CP in (83a) is indeed an "event participant" and has become an island through the operation of Undermerge. Then, this explains why NC between NEG in the matrix clause and the embedded n-word fails to obtain because a syntactic operation such as NC cannot cross an island. In other words, the embedded CP domain becomes a phase, which causes the embedded n-word and the matrix NEG to be transferred to LF at different stages during the derivation. This results in the DN reading of the sentence at LF. On the other hand, the subjunctive CP in (83b) is an "event articulator" and as such, is not subject to the operation of Undermerge. Thus, the embedded CP remains a complement of V and this allows for a NC relation between the n -word and NEG in the matrix clause to be established.
a. Pedro no dijo [c> que nadie había llamado] Peter neg say-past.ind that no one aux-Past.ind call.perf DN: 'It is not the case that Peter said that no one had called' *NC: 'It is not the case that Peter said that someone had called'
b. Pedro no dijo [cP que su hermano había llamado]

Peter neg say-past.ind that his brother aux-PaSt.ind call.perf 'Peter didn't say that his brother had called'

Additionally, Gallego \& Uriagereka's analysis can explain the ungrammaticality of sentences like (84) in a way similar to (83a): After the application of Undermerge the embedded indicative CP becomes an island. As a result, the $n$-word within the CP will remain unlicensed since it cannot find its licensor within its local domain. Structures in which the n-word stays unlicensed are illicit at LF, thus the ungrammaticality of (84).
*Juan no dijo [cР que Pedro había comprado nada]
John neg say-past.ind that Peter aux-Past.ind buy.perf nothing
'John didn't say that Pedro had bought anything'

Although Gallego \& Uriagereka's analysis seems to be able to account for the asymmetries found between indicative and subjunctive clauses across different phenomena, their analysis, in other respects looks somewhat strained. First, it is not clear which element or feature in the syntactic derivation motivates the operation of Undermerge. Given this lack of motivation, there is no potential reason that prevents this operation from applying in all cases of complementation. Thus, the restrictions that Gallego \& Uriagereka propose to constrain the application of Undermerge seem, at a minimum, ad-hoc.

Additionally, in Gallego \& Uriagereka's analysis one is left to wonder what happens to those matrix verbs that originally select for indicative and once negated, select for subjunctive in the embedded clause, compare (85a) to (85b).

$$
\begin{array}{ll}
\text { a. Juan dice } \quad \text { [cP que Pedro compra } & \text { vino] }  \tag{85}\\
\text { John say-PRESNT.IND that Peter buy-PRESNT.IND wine } \\
\text { 'John says that Pedro buys wine' }
\end{array}
$$

b. Juan no dice [cP que Pedro compre vino] John neg say-presnt.ind that Peter buy-presnt.subj wine 'John doesn't say that Peter buys wine'

It is a well-known claim that at least for Spanish the NegP/PolP projection is above TP (Zanuttini, 1994; Tubau, 2008; Laka, 2013; among others.). In Gallego \& Uriagereka's model this means that NEG is merged into the structure much later in the derivation, after Undermerge has already taken place turning the embedded CP into an island (i.e., an indicative in a clausal context). At this point, even if NEG is merged later on in the derivation changing the selectional properties of the matrix verb, there should not be any possible way for the embedded indicative verb inside the island to
acquire subjunctive morphology. Thus, the fact that the embedded verb in (83b) is subjunctive and not indicative remains mysterious. Mysterious, that is, unless we assume that the operation of Undermerge can somehow be reversed.

In the following subsection, I will discuss a more recent alternative to Gallego and Uriagereka's (2011) proposal, Bobaljik \& Wurmbrand's (2013) Domain Suspension.

### 2.3.4.3 A Critical Summary of Bobaljik \& Wurmbrand (2013)

The motivation behind Bobaljik \& Wurmbrand (2013) is similar to that of Gallego \& Urigereka (2011): to provide a general rubric that is able to account for the asymmetries observed between indicative and subjunctive/infinitive clauses. They start by explaining that some clauses show a greater degree of porosity than others with respect to different syntactic phenomena (e.g., long distance reflexive binding, long distance movement, scope, NPI licensing, and others). This degree of porosity can be defined along the following continuum: finite > subjunctive > infinitive > raising ${ }^{13}$. This is illustrated in the English examples of QR in $(86)^{14}$. The scope hierarchies between the existential and the universal quantifier are represented to the left.
(86) a. \# Someone said that Sue is married to every man. $\quad \forall>\exists$ (finite)
b. She has requested that they read only Aspects. only $>$ request (subjunctive)
c. A different student decided to report on every article. $\quad \forall>\exists$ (infinitive)
d. Someone expects Sue to marry every boy. $\quad \forall>\exists$ (infinitive)

[^14]e. \# This soldier seems to someone to be likely to die in every battle. $\quad * \forall \exists$ (raising)
(Bobaljik \& Wurmbrand, 2013: 9)

Bobaljik \& Wurmbrand's main proposal regarding the distribution of QR in (86) is that finite clauses (and raising infinitives in English) involve a solid phrasal domain, hence block QR , whereas other types of infinitives as well as subjunctives trigger the Domain Suspension principle in (87), hence allow QR .
(87) In the following configuration (linear order irrelevant), where the projection of Y would normally close off a domain, formation of such domain is suspended just in case Y depends on X for its interpretation.

$$
\left[\mathrm{X}\left[\mathrm{Y}^{\mathrm{n}} \mathrm{Y}\right]^{\prime}\right.
$$

(Bobaljik \& Wurmbrand, 2013:2)

The authors further explain that they do not consider (87) to be an operation, but a condition that restricts the algorithm(s) that determine(s) derivationally whether a maximal projection will or will not constitute a phase. The algorithm for the structure in (87) is outlined in (88) below.
(88) If $\mathrm{Y}^{\mathrm{n}}$ is the highest projection of a potential cyclic domain, then $\mathrm{Y}^{\mathrm{n}}$ constitutes a phase, unless Y depends on X for its interpretation. ${ }^{15}$

In contrast to Chomsky $(2000,2001)$ where only certain designated projections- -P and CP and possibly also DP and PP -are phases, they argue that particular domains are the ones that

[^15]determine phases, and that it is the highest projection of these domains that constitutes a phase. The potential cyclic domains (i.e., potential phases) are specified in (89).
a. Aspect domain: theta-domain plus any event structure/Aktionstart dependent aspect (progressive, perfective, imperfective)
b. T+C domain: discourse domain, mood, tense, modal domain

Bobaljik \& Wurmbrand (2013:12)

Under Bobaljik \& Wurmbrand's approach no phase is inherently a phase. In fact, phasehood is determined derivationally. In other words, when an XP merges with a head Y, XP becomes a phase if Y is part of the next (potential) cyclic domain (e.g., if $v \mathrm{P}$ merges with $\mathrm{T}, v \mathrm{P}$ becomes a phase). As a consequence, the XP is transferred to the interfaces. However, if XP merges with a head Y which is part of its same (potential) cyclic domain (e.g., if $v \mathrm{P}$ merges with a Asp), XP does not become a phase and its domain is extended to YP (or potentially further). As result, Transfer is postponed.

With this system in place, Bobaljik \& Wurmbrand transition to explaining Domain Suspension in subjunctive clauses. The crucial idea behind their argument is that merging a verb that selects for subjunctive with its complement involves a featural dependency that spans the domain boundary, suspending phasehood of the complement. In other words, Spanish verbs like dudar 'doubt' select for subjunctive, while other verbs like decir 'say' select for an indicative complement. In a more abstract way, while for the subjunctive cases an unvalued feature of the potential phase head establishes a dependency with the lexical value of the matrix verb, there is no feature dependency for the indicative cases. This is shown in the contrast between (90) and (91).


The feature dependency illustrated in (88), Bobaljik \& Wurmbrand argue, is the one responsible for suspending phasehood and also Spell-Out. The idea behind Domain Suspension is that a potential cyclic domain that is incomplete in a crucial semantic way cannot be transferred. Thus, in order for the structure to be licit, its unvalued features have to be valued via Agree before LF.

I agree with Bobaljik \& Wurmbrand's statement that the phase model proposed by Chomsky (2000, 2001) is too restrictive. In fact, many of the phenomena discussed in this dissertation would present a puzzle if we were to restrict phases to two fixed domains (i.e., $v \mathrm{P}$ and CP). Bobaljik \& Wurmbrand's (2013) proposal is an interesting and ambitious one. They propose a rubric that accounts for the asymmetries observed not only between subjunctives and indicatives but also infinitives and raising constructions. They illustrate these asymmetries through QR and propose a dynamic phase model where phases are determined by whether a head establishes a feature dependency with a higher XP.

Moreover, Bobaljik \& Wurmbrand's Domain Suspension can be extended to the morphology (e.g., superlative suppletion), something that is not directly inferable from Gallego \& Uriagereka (2011). Additionally, the motivation behind Bobaljik \& Wurmbrand's Domain Suspension is clear: postponing transfer is not a luxury it is a necessity generated by a featural dependency established by two elements in different syntactic domains. On the other hand, the motivations for the operation of Undermerge in Gallego \& Uriagereka's proposal are abstruse.

One possibility is that the motivation for Undermerge might just be the assignment of theta-roles by the main verb. If we were to entertain this possibility, a Spanish verb such as querer would only assign the role of "event articulator" to the complement, making the application of Undermerge unnecessary. On the other hand, a verb like decir 'to say' would assign the role of "event participants" to its complement forcing the application of Undermerge that turns it into an island. These, however, are mere stipulations.

Although Bobaljik \& Wurmbrand (2013) and Gallego \& Uriagereka (2011) are able to account for all the phenomena presented above (e.g., long distance movement, QR, NPI licensing, scope phenomena with NEG, among others), in the case of long-distance wh-movement phenomena, Bobaljik \& Wurmbrand's is the only proposal that can accomplish this without the need for extra machinery. Recall that in Gallego \& Uriagereka (2011) long distance-movement of a wh-phrase out of indicative clause was justified by the existence of some short of parameter that operated prior to Undermerge. On the other hand, in Bobaljik \& Wurmbrand (2013) this movement out of a (potential) phase is driven by the need for the $w h$-phrase to check its features against those of C in the matrix clause. Therefore, it is the mere feature-dependency between the $w h$-phrase and C that suspends the phasehood of the complement as well as Spell-Out.

Let us return to examining the phenomenon of long-distance licensing in Spanish NC under Bobaljik \& Wurmbrand's (2013) proposal. The relevant examples are given in (92) and (93) below.
(92) No quiero [cp que traigas nada]
neg want.pRSNT.IND that bring-Presnt.SUbj nothing
'I don't want you to bring anything'
(93) Nadie te dijo [c> que trajeras nada]
no one Cl.dat say-past.ind that bring-past.subu nothing
'No one told you to bring anything'

A priori, it is not straightforward how Bobaljik \& Wurmbrand's proposal can account for the NC data in (92) and (93). Let me proceed through the syntactic derivation of (92) to better illustrate the problem. Let me fast-forward to the point where the verb querer 'to want' is merged into the structure. First, the verb querer is merged into derivation specified with a lexical value uF [SUBJ] and establishes an Agree relation with the topmost head of the complement, e.g., C, which is unvalued i[ ]. This triggers Domain Suspension and as a consequence, the embedded CP does not become a phase. After valuation takes place the derivation continues until the $v \mathrm{P}$ that contains the verb querer merges with T. Notice that at this point all unvalued features will now have been valued and this will cause the matrix $v \mathrm{P}$ to become a phase since T is part of the next (potential) cyclic domain. At the point of Transfer the n-word inside the embedded clause will remain unvalued since [neg] has not yet been merged into derivation (recall that in Spanish PolP is merged above TP). This will result in an illicit structure at LF. Unsurprisingly, the structure in (93) is bound to suffer a similar fate. However, we can circumvent this problem by assuming that internal arguments, e.g., syntactic objects, inside finite $v \mathrm{Ps}$ are accessible to the rest of the derivation. This can be achieved in two different ways: (i) following Embick (2010) who argues that $v$ shares features with T and this relationship postpones $v \mathrm{P}$ accessible to the rest of the derivation; or (ii) by following Gallego $(2005,2007)$ who argues that syntactic objects move to the outer layer of the $v^{*} \mathrm{P}$ shell to receive case.

All things considered, Bobaljik \& Wurmbrand's Domain Suspension approach seems to be the most suitable one to implement in an analysis of Spanish NC.

### 2.3.4.4 Concluding Remarks

In previous subsections, I have discussed Chomsky's (2000, 2001, 2005) theory of phases and I have argued that his theory is too restrictive to account for all of the phenomena described above (e.g., long-distance movement, scope of negation and QR). In addition, I have discussed the alternative proposals that have emerged in order to account for those phenomena, namely, Gallego (2005, 2007), Gallego \& Uriagereka (2011) and Bobaljik \& Wurmbrand (2013).

Starting with Gallego's $(2005,2007)$ Phase Sliding, I have shown that his proposal is not able to account for the phenomenon of Spanish NC. Considering that after Phase Sliding, the $v * \mathrm{P}$ still remains a phase, it is unclear how the sentential negative marker outside this phase can license postverbal n-words inside it since they are in two different Spell-Out domains.

Further, I have discussed Gallego \& Uriagereka's (2011) proposal and shown that although it can account for some cases of NC across two different syntactic domains, it is unclear what element or feature in the syntactic derivation motivates the operation of Undermerge or even what is it that prevents this operation from applying to all cases of complementation. As I have suggested in subsection 2.3.4.3., Undermerge might be motivated by verbal theta-role assignment. This would explain why it is only applied to complements that are "event participants" or oblique arguments. However, it is not clear how this approach can account for those cases in which verbal selection is altered when combined with the sentential negative marker. Unless, of course we assume that Undermerge can somehow be reversed, which seems unlikely. Additionally, the restrictions constraining the operation of Undermerge are ad-hoc. This approach would be more desirable if it were able to account for the data without the need of ad-hoc rules.

Bobaljik \& Wurmbrand's (2013) proposal seems to achieve this. The motivation behind Domain Suspension is clear: a featural dependency between elements in different (potential) cyclic
domains. Additionally, this approach accounts for all of the phenomena above (e.g., long-distance movement, scope of NEG and QR ) without the need for ad-hoc restrictions or rules. The only limitation to this approach seems to be the phenomenon of long-distance licensing in NC : even if Domain Suspension applies to the embedded CP domain, the embedded $v^{*}$ will always constitute a phase and thus, a barrier for NC. However, as pointed out in the previous section, one can circumvent this problem by assuming that internal arguments, e.g., syntactic objects, inside finite $\nu$ Ps are accessible to the rest of the derivation, as argued in Embick (2010) and Gallego (2005, 2007).

To conclude, none of the proposals described above are unproblematic. However, Bobaljik \& Wurmbrand's (2013) seems to be better suited to account for the phenomenon of Spanish NC. Thus, Bobaljik \& Wurmbrand's Domain Suspension approach will be incorporated into my analysis of Spanish NC in chapter 6.

### 2.5 Distributed Morphology

Distributed Morphology (DM) (Halle \& Marantz, 1993; Embick \& Noyer, 2007) is a morpho-syntactic framework that employs the same combinatory and interpretative mechanism for both word formation and phrase formation. Viewed in this way, morphology reflects syntactic structure.

Distributed Morphology assumes that grammar accesses three Lists at different stages of the derivation. List 1 , the mental lexicon, is a list containing abstract morphemes, both lexical (roots) and functional. List 2 contains a list of the rules that provide phonological content to abstract morphemes. List 3, the Encyclopedia, is a list of the idiosyncratic meanings of individual pieces in particular contexts. The lists just described are accessed at different stages of the
derivation. Considering that the functional morphemes in List 1 lack phonological content, phonological features are paired up with syntactic terminals by means of Vocabulary Insertion, an operation that happens post-syntactically, in the mapping between syntax and phonology. Under a Distributed Morphology framework, the interface between syntax and the externalization systems is complex, and PF operations such as Impoverishment or even Obliteration may apply to syntactic terminals before Vocabulary Insertion. The model of DM that I will assume for this dissertation is sketched in Figure 2.

Figure 2. Distributed Morphology framework


### 2.5.1 PF operations: Impoverishment and Obliteration

Seminal work by Bonet $(1991,1995)$ in Distributed Morphology posits an operation type on syntactic terminals called Impoverishment. This operation changes the feature content on a terminal node in the PF branch of the grammar prior to Vocabulary Insertion, which results in less
marked feature content. For instance, Bonet discusses the appearance of the "spurious $s e$ " in Spanish that replaces the dative clitic in the clitic combination dat+acc with the clitic se:
(94) Le lo dieron $\rightarrow$ se lo dieron 3SG.DAT 3SG. ACC give.past.pl se 3SG.ACC give.past.pl 'They give it to her/him.'

Bonet argues that the spurious se appears in the structure for the following reasons. First, se is the spell out form of a very sparse feature structure [f] and second, an Impoverishment rule deletes from the dative clitic the features that make it distinctive, in effect leaving it with a simplified feature structure that can only spell out as $s e$.

Interestingly, Impoverishment can also target an entire terminal node instead of a subset of its features - this is called Obliteration (Arregi \& Nevins, 2007). Arregi \& Nevins (2007) illustrate how this operation works using data from Zamudio Basque. Consider the examples in (95) and (96) from Table 2.

Table 2. Sample derivation of Obliteration rule Arregi \& Nevins (2007)

| Output of syntax: |  |  | Oblit. $\text { sku- } \rightarrow \emptyset$ <br> 1Pl.Dat | Output of Obliteration |
| :---: | :---: | :---: | :---: | :---: |
|  | (Hik guri emon) d(You us gave) 3 Sg.abs 'You (sg) gave it to us' | o- sku- na <br> AUX.TRANS IPL.DAT 2SG.F.ERG |  | d- $\quad$ o- $\quad$ na   <br> 3SG.ABS AUX.TRANS 2SG.ERG |
|  | (Zuek guri emon) d(Y'all us gave) 3sg.ABs 'You (pl) [gave] it to us' | $0-$ sku- sue <br> o-   | $\begin{array}{\|l\|} \hline \text { sku- } \rightarrow \emptyset \\ \text { iPL.DAT } \end{array}$ | $\begin{array}{lcc}\text { d- } & \text { o- } & \text { sue } \\ \text { 3SG.ABS } & \text { AUX.TRANS } & \text { 2PL.ERG }\end{array}$ |

These examples above show that in Zamudio Basque the co-occurrence of the first-person plural with second person ergative clitics is disallowed. In other words, the "you-us" as well as "we-you" combinations are not possible. As a repair operation, the first plural dative morpheme $-s k u$ is deleted, in the context of a second person ergative morpheme, as illustrated in Table 1. Following Halle (1997), who assumes that the feature [+Participant] is common to first and second person,
and Calabrese (2004), according to whom Ergative and Dative share the feature [+Motion], Arregi and Nevins (2007) propose the Obliteration rule in (97), which accounts for the deletion of the morpheme -sku in the examples (95) and (96).

Obliterate the Node containing [ + Motion, + Participant, + Author, +Pl$]$ in the environment [+Participant]
(Arregi \& Nevins, 2007)

The structure of the Obliteration rule, with an input consisting of features drawn from List 1, reveals an unchallenged assumption: it occurs post-syntactically and before Vocabulary Insertion takes place.

### 2.6 Code-switching and Negation

Code-switching (CS) is defined as the use of two or more languages within the discourse by bilinguals (Poplack, 1980). In the last decades, CS has become a phenomenon of interest in linguistic research (Poplack, 1980; MacSwan, 1999; González-Vilbazo \& López, 2012; Koronkiewicz, 2014; González-Vilbazo \& Ramos, forthcoming; and Sande, 2014; among others) because it allows researchers to observe and analyze those interactions that are not directly visible in monolingual data. These interactions, contribute to a better understanding of different aspects of the language faculty. Thus, in chapter 4 of dissertation CS will be used as a tool in order to understand the intricacies of preverbal negation as they play out in the mind of bilinguals, and by extension, in the mind of monolinguals as well.

As shown in section 2.3., negation and NC have been profusely studied in monolingual language contexts (Laka, 1990; Zanuttini, 1991, 1994; Herburger, 2001; Giannakidou, 2000;

Zeijlstra, 2004; Tubau, 2008; among others). However, little research has examined negation in a bilingual CS context (MacSwan, 1999; González-Vilbazo \& López, 2013). Thus, the purpose of this subsection will be to explore and discuss the most relevant theories on CS as they pertain to the phenomenon of negation and NC.

This section will be organized as follows. In subsection 2.6.1 I discuss the third grammar approaches to CS, and in subsection 2.6.2 I will move on to discussing the generative approaches to CS. Subsection 2.6 .3 will present the minimalist approaches to this phenomenon. Considering that little research has been carried out on the topic of negation or NC in CS, I will discuss the predictions that the aforementioned CS approaches make regarding this topic. The languages that I will be using for this are Basque and Spanish, the same language pair used in the CS experiment in section 4.

### 2.6.1 Third Grammar Approaches to CS

In the literature of CS there have been several attempts to formalize its constraints. The first set of approaches that will be discussed below view CS as a linguistic phenomenon that is constrained by factors that are different from monolingual speech. Under such a framework, a bilingual has a separate grammar for each of the two languages and the mixing of these languages is viewed as a process that is distinct from monolingual speech. These approaches to CS are referred to as third-grammar approaches (Poplack, 1980; Joshi, 1985).

### 2.6.1.1 Poplack (1980)

Poplack (1980) proposes a model that constrains the interaction of the language systems. Specifically, Poplack proposes the Equivalence Constraint in (98).

## The Equivalence Constraint

Codes will tend to be switched at points where the surface structures of the languages map onto each other.

The idea behind (98) is that code-switches are allowed within constituents only if the word order requirements of both languages are met at S -structure. This concept is best illustrated in the example in (99) from Spanish and Basque.

(99) | Jon | no | ha | comprado | nada |
| :--- | :--- | :--- | :--- | :--- |
|  | Jonek | ez | du | erosi |

'Jon didn't buy anything'

The example above shows a side-by-side comparison of a monolingual Spanish and monolingual Basque sentence. Thus, the Equivalence Constraint predicts that a Basque/Spanish bilingual will only switch at those switching sites designated by the lines. With respect to negation, Poplack's proposal correctly predicts the acceptability of the Basque/Spanish code-switch in (100) because the code-switch of the Basque NPI ezer 'anything' happens at an expected switching site. On the other hand, although constructions like (101) are not disallowed by Poplack's constraint, Basque/Spanish code-switchers consider this sentence unacceptable. In the CS sentences below Basque is represented in italics and Spanish in regular font.
(100) Jon no ha comprado ezer

John neg has bought anything
(101) *Jon no du erosi ezer

John neg has bought anything
'John didn't buy anything'

As shown above, Poplack's (1980) approach to CS is not able to account for the Basque/Spanish CS data presented here. This approach shows that similarities in surface structure are not enough to determine the acceptability of CS utterances in general. Additionally, it shows that codeswitches between negation and the verb, or in this case the auxiliary, are not possible even within languages with similar surface structures. I will now turn to discuss Joshi's (1985) approach.

### 2.6.1.2 Joshi (1985)

In Joshi's (1985) system, the language from which a code-switched utterance comes from is defined as the Matrix Language, whereas the other language is the Embedded Language. Thus, under this approach switches are asymmetrical. Further, Joshi proposes the Closed-Class Constraint which stipulates that a code-switch is unacceptable between a closed-class item and an open-class one, which applies only to the embedded language.

## (102) Closed-Class Constraint

Closed-class items (e.g., determiners, quantifiers, prepositions, possessives, Aux, Tense, helping verbs) cannot be switched.

In order to illustrate (102) Joshi presents the following example from Marathi/English CS where the Marathi postposition cannot be switched by the English preposition in (103). The author declares Marathi as the matrix language (in italics) and English as the embedded language (in regular font).
(103) *some chairs-war some chairs-on
'on some chairs'
(Joshi, 1985:195)

Although the phenomenon of negation is not directly addressed in Joshi (1985), his theory predicts the unacceptability of (101) above: the Spanish sentential negative marker cannot be codeswitched because it is a closed-class item. Unfortunately, it incorrectly predicts the unacceptability of otherwise acceptable code-switches like (100) for the same reason: even though not explicitly mentioned in Joshi (1985), NPIs are also considered to be closed-class items (Xiang et al., forthcoming). Based on this, the phenomenon of negation in CS poses a problem for Joshi's proposal.

So far, none of the third-grammar approaches to CS discussed above are able to accurately account for negation in CS. Let me now turn to discuss those approaches that do not resort to a third-grammar: generative approaches to CS.

### 2.6.2 Generative Approaches to CS

These approaches view CS as a phenomenon that is constrained by factors like those that generativists assume constrain monolingual speech. In other words, bilinguals merge lexical items from the two different languages into the same syntactic derivation, in the same way a monolingual speaker would. The paragraphs below will discuss two prominent approaches to CS (Mahootian, 1993; Belazi, Rubin \& Toribio, 1994; MacSwan, 1999; González-Vilbazo \& López, 2013)

### 2.6.2.1 Mahootian (1993)

Mahootian (1993) proposes an account based on the complement relation in phrase structure. Mahootian's principle governing the acceptability of CS utterances is provided in (104).
(104) The language of the head determines the phrase structure position of its complements in code-switching just as in monolingual contexts.

In order to illustrate his proposal Mahootian (1993) provides example (105) below, extracted from a corpus of Farsi/English naturalistic CS data. In a language like Farsi, the objects occur before the verb whereas in English they occur after the verb. Mahootian (1993) observed that in code switching contexts the language of the verb determines the placement of the object.
(105) You'll buy xune-ye jaedid

You'll buy house-poss new
'You'll buy a new house'

However, examples of negation in Basque/Spanish CS contradict the formulation in (104). For instance, (104) predicts that code-switches such as (106), where a Spanish n-word precedes a Basque tensed verb should be acceptable. However, the unacceptability of the CS judgments by Basque/Spanish bilinguals in (106) says otherwise.
(106) *Nadie zen etorri
no one aux-past come
'No one came'

Once again, this approach fails to explain those cases of negation in CS. However, while Mahootian's idea that the head is the one who determines the grammatical properties of its complements like linearization might need some refinements, it seems to be on the right track. This is an idea that will be revisited in the discussion of González-Vilbazo \& López (2013).

### 2.6.2.2 Belazi, Rubin and Toribio (1994)

Belazi, Rubin \& Toribio (1994) propose the Functional Head Constraint, arguing that a code-switch may not occur between a functional head and its complement. Belazi, Rubin \& Toribio (1994) attribute this to a feature checking relation between the head and the complement.

However, the authors propose a language feature, such as [+Basque] or [+Spanish] that must be checked along with other features during the derivation. If these features fail to agree (i.e., a Basque functional head and a Spanish complement, or vice versa) then the code-switch is banned. The Functional Head Constraint is outlined in (107).

## (107) The Functional Head Constraint

The language feature of the complement f-selected by a functional head, like all of the relevant features, must match the corresponding feature of the functional head.

From this it follows that, under their model, the CS between a lexical head and its complement is possible. However, the following switches are not allowed: between $\mathrm{C}^{0}$ and TP , between $\mathrm{T}^{0}$ and VP, between $\mathrm{Neg}^{0}$ and VP, between $\mathrm{D}^{0}$ and NP. Bearing this in mind, Belazi, Rubin \& Toribio (1994) make the following prediction about negation: switches between $\mathrm{Neg}^{0}$ and its complement, the VP, are unacceptable. These authors back up their argument with Spanish/English CS examples like (108). Recall that examples like (108) resemble those from Basque/Spanish CS in (101).
(108) *El hombre no wants the book the man neg wants the book 'The man doesn't want the book'

In summary, it seems that Belazi, Rubin \& Toribio's approach is able to account for the CS in negative sentences without problems. However, they achieve this by paying a high price: to propose that syntactic operations depend upon language features such as [ $\pm$ Basque] is a tautology and thus lacks empirical testability. Ideally, we want a theory of CS that is able to account for the phenomena described above without having to resort to language-specific features. An alternative
would be to assume that this "language feature" is nothing but a set of features that are characteristic of one language but not of the other.

### 2.6.3 Minimalist Approaches to CS

### 2.6.3.1 MacSwan (1999)

MacSwan (1999) develops a similar theory to that of Belazi, Rubin \& Toribio (1994) that eliminates this problematic "language feature" and operates under a Minimalist framework (see subsection 2.4.). In his model of intrasentential CS, items from the lexicon of the two different languages are merged into the derivation to introduce features into the numeration. These elements must be checked against one another in the same way that monolingual features would, thus eliminating the need for additional mechanisms. Under this approach, CS can be seen as an Ilanguage phenomenon. In other words, CS can be understood an expression of linguistic competence. In MacSwan (1999) the PF is constrained by several rules separated from the syntax. These rules are specified in the PF Disjunction Theorem in (109).
(109) PF Disjunction Theorem
(i) The PF component consists of rules/constraints which must be (partially) ordered/ranked with respect to each other, and these orders/rankings vary crosslinguistically.
(ii) Code-switching entails the union of at least two (lexically encoded) grammars.
(iii) Ordering relations are not preserved under union.
(iv) Therefore, code switching within a PF component is not possible.

According to the PF Disjunction Theorem code-switches cannot occur within a single $\mathrm{X}^{0}$ because $\mathrm{X}^{0}$ s are inputs to PF and no code-switch below $\mathrm{X}^{0}$ is allowed. Moreover, MacSwan (1999) employs this ban on CS below $\mathrm{X}^{0}$ to explain the unacceptability of examples like (107). Switching between a Spanish [neg] and the English verb results in an unacceptable construction because the Spanish negative marker cliticizes with $\mathrm{T}^{16}$ (see Zagona, 1988 for argumentation and examples). This cliticization forms a complex $X^{0}$ and switching within complex $X^{0}$ s will cause the structure to crash at the PF component. This same explanation can be extended to those cases of Basque/Spanish where there is a switch between [neg] and T in (101). A variation of (101) is provided in (110).
(110) *Jon ez ha comprado nada

John neg has bought nothing
'John didn't buy anything'

The unacceptability of cases like (101) and (110) can be straightforwardly explained. Both Basque (Laka, 1990) and Spanish (Zagona, 1988) have been reported to be languages in which the negative marker cliticizes with T by means of lowering, as shown in (111). As a consequence, the feature [neg] and T form a complex $\mathrm{X}^{0}$, which makes a configuration like that of (110) crash at PF.
(111) $\mathrm{C}[\mathrm{Neg}[\mathrm{T} \ldots[\mathrm{v}]]] \rightarrow \mathrm{C}[\ldots[\mathrm{Neg}+\mathrm{T} \ldots[\mathrm{v}]]]$

In addition, MacSwan provides examples of Nahuatl/Spanish CS in which a Nahuatl negative marker licenses a Spanish n-word and a Spanish negative maker licenses a Nahuatl NPI. He reports

[^16]that these types of code-switches are all ill-formed with the exception of those cases where the Spanish n-word appears preverbally, as shown in (112).
(112) a. *Juan amo okitak (a) nadie Juan neg see no one
b. *Juan no vio aka Juan neg see somebody
c. Juan nadie okitak

Juan no one see
'Juan didn't see anybody'

Based on the Nahuatl/Spanish CS data presented above MacSwan (1999) puts forward the following predictions: (i) code-switches between NEG and the n-word should be unacceptable; and (ii) only those switches that involve n-words in preverbal positions should be allowed. However, Basque/Spanish code-switchers show the opposite pattern since they consider the sentences in (113) acceptable. In section 4, I will revisit the CS examples in (112) and discuss them further.
(113) a. No vino inor.
NEG came ANYoNe
b. Ez zen etorri nadie
neg Aux-past come no one
c. Nadie ez zen etorri
no one neg aux-past come
'No one came'

Overall, while MacSwan (1999) provides a theoretical account for the unacceptability of the CS examples involving Neg' and T, it is unclear how the examples in (112) can be accounted for under his model. Moreover, the data from Basque/Spanish CS do not provide evidence in support of the
findings in MacSwan (1999). The next subsection will discuss González-Vilbazo \& López's $(2012,2013)$ approach to CS.

### 2.6.3.2 Gónzalez-Vilbazo \& López (2012, 2013)

González-Vilbazo \& López's $(2012,2013)$ follow Mahootian (1993) and MacSwan (1999) in assuming that there is no third grammar that is specific to CS, in fact, González-Vilbazo \& López claim that "there are no specific rules, structures, mechanisms, or operations built into the language faculty in order to regulate code-switching" (Gónzalez-Vilbazo \& López, 2012:37). Like MacSwan (1999) they argue that bilinguals only have one computational system, as there is only one main operation Merge. Further, they assume that bilinguals only have one grammatical system as well as a single system of spelling-out syntactic terminals (González-Vilbazo \& López, 2013). Further, González-Vilbazo \& López (2012) they put forward the Phase Head Hypothesis (PHH) as defined in (114).

## (114) The Phase Head Hypothesis (PHH)

The phase head determines grammatical properties of its complement.

Initially, González-Vilbazo \& López (2012) discuss the important implications that the PHH has for those phases headed by $v^{*}$. In subsequent work, they extend the PHH to C and show that this particular phase head plays an important role in the derivation in that it determines the language of the wh-phrase, the (non) availability of null-subjects (see Sande forthcoming), linearization and the realization of [neg]. I will now turn to discuss the former phenomenon due to its relevance to the phenomenon at discussion in the current dissertation.

Based on the predictions that the PHH makes, González-Vilbazo \& López (2013) hypothesize that cliticization of the negative marker is an operation that is determined by the C phase. In order to provide evidence in support of their hypothesis they explore the behavior of negation in Spanish-German code-switched sentences. The crucial difference between the two languages regarding negation is that while the German negative marker nicht does not obligatorily involve cliticization with T , the Spanish negative marker no does. Consequently, GonzálezVilbazo \& López (2013) predict that a German C will select for a German negative marker and will not trigger cliticization. At the same time, a Spanish C will select for a Spanish negative marker and will trigger cliticization with T . This prediction is corroborated by the examples in (115) below.
(115) a. *No sé wen Juan no amenazó neg know.1s who.acc Juan neg threatened
b No sé wem Juan nicht drohte neg know.1s who.dat Juan neg threatened
c. *No sé a quién drohte Juan nicht neg know.1s who.dat threatened Juan neg
d. No sé a quien no drohte Juan neg know.1s who.dat neg threatened Juan 'I don't know who Juan threatened'

Taking the data above into account, González-Vilbazo \& López (2013) conclude that C determines whether no or nicht are possible in the structure as well as their location in the sentence. Even though this phenomenon will not be approached in the current dissertation, the assumptions made in this subsection will be relevant for the discussion in chapter 4, where I will examine the behavior of preverbal n-words through a CS perspective.

### 2.6.4 Concluding Remarks

To conclude, in section 2.6 I have reviewed the most relevant theories on CS as they pertain to negation. In addition, I have explained that CS phenomena are very interesting because they allow us to understand different aspects of the language faculty through the observation an analysis of interactions that are not directly visible in a monolingual context. In the present dissertation, I will assume the CS approaches proposed in MacSwan (1999) and González-Vilbazo \& López (2012, 2013) to account for the Basque/Spanish CS data. Additionally, through the examination of Basque/Spanish code-switching data we have explained the ban that prevents those switches between Neg and T. I have also advanced data from Basque/Spanish CS, where negation is able to license Basque NPIs as well as Spanish n-words regardless of the language of the switch. These issues will be discussed further in chapter 4.

### 2.7 Summary and Assumptions

In this chapter I have discussed the phenomenon of NC and its core concepts. I have provided definitions for the different types of negative elements that are found across languages, as well as the phenomena of NC, DN and Neg-raising. Further, I follow a long line of research (Laka, 1990; Zanuttini, 1994; Zeijlstra, 2004; Tubau 2008) in assuming that negation is a head in the functional projection NegP/PolP. I will also assume that PolP occupies a position above TP for Spanish and Basque and above $v \mathrm{P}$ for English. In addition, I have presented the different analyses that have been proposed in the literature to account for the phenomenon of NC.

Further, I have presented the core assumptions of the Minimalist Program and Distributed Morphology, which are the theoretical frameworks that will be followed in the current dissertation. With regards to the Minimalist Program, the two different levels of representation, PF and LF,
have been described. These two levels are the ones that receive instructions from the syntax in the form of features and are the ones in charge of the phonological realization and interpretation of these features. Moreover, in both the Minimalist and Distributed Morphology models, Merge and Move are claimed to be the core operations responsible for building syntactic structures. I also adopt a third operation, namely, Agree, which is a feature checking mechanism that assigns a value to an unvalued feature. The version of Agree that I will assume is that of Pesetsky \& Torrego (2004, 2007), and I further assume that, at least for NC, the direction of this operation is the one described in Baker (2013).

I also adopt a realizational approach to morphology, where the input to the computational system is a list of abstract morphemes and roots that correspond to phonetic matrices called List 1. A second list, List 2, includes rules of phonetic realization for the morphemes of List 1. I have also presented the process of Vocabulary Insertion, by which phonological matrices are assigned to abstract morphemes at the interface between syntax and the externalization systems. I adopt the view that PF is dynamic and that a number of operations can take place post-syntactically.

Chomsky's (2000 and subsequent work) Phase Theory is also crucial for the analysis that I will put forward in chapter 6. For Chomsky, the derivation proceeds on a phase-by-phase basis and is subject to the PIC in (68), which forces those elements that need to participate in subsequent phases to move to the edges of that phase. In addition, I have explained that Chomsky's Phase Theory is too restrictive and discussed several proposals, one of which, Bobaljik \& Wurmbrand (2013) will be central to the analysis of NC proposed in chapter 6.

This chapter presents the baseline experiment for this dissertation. The goal of this experiment is to perform a cross-linguistic comparison of the behavior of Spanish n-words compared with that of English NQs as well as English and Basque NPIs. This allows me to shed light into the problem of the characterization of Spanish n-words described in section 2.3.

### 3.1 Introduction

Despite much recent discussion, the semantic status of Spanish n-words like nadie 'no one' or nada 'nothing' is still controversial. Depending on the context Spanish n-words exhibit a dual behavior: they behave like inherently NQs (e.g., no one, nothing, never...etc.) in preverbal position and like NPIs (e.g., anybody, anything, ever...etc.) in postverbal position, compare (1) to (2).
(1) a. *Nadie no vino a la fiesta no one neg come-past to the party
b. Nadie vino a la fiesta
no one come-past to the party 'No one came to the party'
a. $\quad$ Vi a nadie en la fiesta see-past acc no one at the party
b. No vi a nadie en la fiesta neg see-past acc no one at the party 'I didn't see anyone at the party'

As shown in (1) the Spanish n-word nadie 'nothing' in preverbal position needs to be licensed without an overt sentential negation, thus behaving like a true NQs such as no one. However, the postverbal n-word in (2) cannot be licensed without the overt sentential negation no 'not', thus behaving like an English NPI such as anyone would. As discussed in section 2.3, there are three
main hypotheses regarding the status of Spanish n-words. Some treat them as inherently negative quantifiers (Zanuttini, 1991; Haegeman \& Zanuttini, 1991), others treat them as English-like NPIs (Bosque, 1980; Laka, 1990), and more recently, these elements have been attributed the status of non-negative indefinites (Zeijlstra, 2004; Tubau, 2008 and Penka, 2010).

The debate about the status of Spanish n-words has been ongoing for several decades and this has resulted in several different analyses of Spanish NC. Nonetheless, none of these approaches is free of shortcomings. While those analyses that attribute the NQ status to n-words can easily account for the cases in (1), they have to resort to extra mechanisms such as the Negative Absorption Rule to explain their non-negative behavior in cases such as (2). On the other hand, those approaches that treat n-words as English-like NPIs have no problems accounting for those cases such as (2) but have to resort to a covert negative operator that c-commands and takes scope over the n-word to explain cases such as (1). Additionally, this type of approach faces a crucial problem: if the silent negation is not restricted to particular contexts when it is needed, then nothing prevents a sentence like Vi a nadie en la fiesta 'I saw anybody at the party' from being grammatical and interpreted as 'I didn't see anyone at the party'.

Finally, those approaches that take n-words to be non-negative indefinites have no problem to account for cases such as (2) but need to explain why n-words are interpreted as negative in cases where the n-word is preverbal (these approaches will be discussed in more detail in Sections 2.1.2, 2.1.3, 2.1.4 and 2.1.5.). Nonetheless, the status of Spanish n-words is still a matter of controversy and requires further investigation. The goal of this chapter will then be to understand the properties of Spanish n-words and shed light into their semantic status. This issue is key for developing a formal analysis of Spanish NC.

Previous research on this topic was carried out by Vallduví (1994), who tested the behavior of Spanish n-words across four different contexts: in isolation, modified by almost or absolutely, acceptability in preverbal and postverbal position, yes/no questions and if clauses (the relevant article and contexts will be discussed further in Section 3.2). The present study is a conceptual replication and extension to Vallduví (1994) and its main goal is to shed light on the status of Spanish n-words by comparing their behavior to that of English NQs and NPIs as well as Basque NPIs. This will allow me to evaluate the claims regarding the status of $n$-words proposed in Zanuttini (1991) and Haegeman \& Zanuttini (1991), Bosque (1980) and Laka (1990), Herburger (2001), as well as Zeijlstra (2004) and Tubau (2008). In addition, this study uses experimental cross-linguistic data for greater generalizability.

### 3.2 Background

### 3.2.1 Vallduví (1994)

In his 1994 article Vallduví ${ }^{17}$ utilizes four diagnostic tests gathered from the literature on n-words and NPIs to assess the three main hypotheses that have been proposed in the literature regarding the status of Spanish n-words. As introduced in section 2.3, these hypotheses are: (i) Spanish n-words are NQs, or Hypothesis A in Vallduví's terminology; (ii) Spanish n-words are NPIs, or Hypothesis B; and (iii) Spanish n-words are lexically ambiguous between NQs and NPIs, or the Hybrid Hypothesis. The four tests used in Vallduví (1994) are introduced in (3).

[^17](3) a. Ability to occur in isolation.
b. Ability to be modified by the adverbs almost or absolutely.
c. Grammaticality in preverbal position.
d. Ability to appear in yes/no and if contexts with a non-negative value.

In the following paragraphs, I present a summary of Vallduvi's findings with respect to the four different diagnostic tests for English and Spanish.

The first diagnostic (henceforth, Diagnostic 1) tests the ability of negation-related elements to appear in isolation. NPIs cannot appear in isolation, i.e. fragment answers, as shown in (4a). In contrast, English NQs and Spanish n-words can. Recall, that as we saw in section 2.3, Zanuttini (1991) exploited this fact in order to claim that n-words were NQs. Laka (1990) on the other hand, counter argues that this behavior is due to a covert negative operator that licenses the n -word in this position.
(4) a. Who did you see? NO ONE
b. Who did you see? *ANYONE
c. ¿A quién viste? A NADIE (Spanish) what see-2SG.PASt no one

The second diagnostic test (henceforth, Diagnostic 2) involves almost/absolutely modification. This test was first employed by Horn (1972) and in subsequent work by Zanuttini (1991). The assumption behind this test is that the adverbs almost/absolutely can modify universal quantifiers, i.e., NQs, but not existentials, i.e. NPIs. NPIs do not admit almost/absolutely modification because these items are not quantificational, see (5a). In contrast, NQs and n-words admit this type of modification, see (5b-c)
(5) a. Who did you see? *Almost anyone
b. Who did you see? Almost no one
c. ¿A quién viste? A casi nadie
(Spanish) who-aCC See-2SG.PAST almost no one

The third diagnostic (henceforth, Diagnostic 3) tested for preverbal grammaticality, as in (6). While NPIs need to be c-commanded by a negative marker in preverbal position, NQs and n-words do not. Thus, their occurrence in preverbal position is completely licit.
(6) a. *Anything works in this house
b. Nothing works in this house
c. Nada funciona en esta casa
(Spanish) Nothing works in this house

The last diagnostic test (henceforth, Diagnostic 4) is used in Laka (1990) to provide evidence in support that n -words are NPIs by virtue of appearing in non-negative contexts, such as yes/no questions and if clauses. Vallduví (1994) concludes that while NPIs and NQs are allowed in these contexts, n-words are not, as shown in (7). Notice, however, that the interpretation of the sentence in (7a) is different from the one in (7b). In the former the NPI anything receives a non-negative existential meaning, while in the latter the NQ nothing receives a negative universal reading.
(7) a. If you need anything, let me know
b. If you need nothing, let me know
c. *Si necesitas nada, avísame
(Spanish)

Table 1 presents a comparison of Vallduvi's (1994) findings across the four diagnostic tests applied to NPIs, NQs and Spanish n-words.

Table 1. Comparison of NPIs, NQs and n-words across Diagnostics

|  | Diagnostic |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| English NPIs | N | N | N | Y |
| English NQs | Y | Y | Y | Y |
| Spanish n-words | Y | Y | Y | N |

From the four tests, Vallduví concludes that NQs and n-words function differently than NPIs with respect to the contexts in which they appear. Using the evidence in Table 1, he argues that this provides enough evidence to reject Hypothesis B, which takes n-words to be NPIs. On the other hand, Vallduví concludes that the data support Hypothesis A, which states that Spanish n-words are inherently negative quantifiers, he bases this conclusion on the fact that n-words behaved like their English counterparts in all diagnostics. In addition, Vallduví also states that the Hybrid Hypothesis, which states that n-words are lexically ambiguous between NQs and NPIs, is a viable option for Spanish n-words: "...Hypothesis A and the Hybrid Hypothesis fare much better than Hypothesis B, since the former accept the reality of negative concord and put forward proposals to account for it while the latter subsumes it under polarity licensing" (Vallduví, 1994: 24).

Vallduví (1994) argues that his results favor Hypothesis A, which states that n-words are NQs, and discard Hypothesis B. However, as we will see in the paragraphs below, there are some other contexts (not tested in Vallduví (1994)) in which the similarity between n-words and NQs becomes less apparent. In the following subsection, I will introduce a third language to the paradigm, i.e., Basque. In addition, I will extend Vallduvís Diagnostic 3 so that not only the grammaticality in preverbal position is tested, but also in postverbal position without a negative marker. This, will allow me to perform a more exhaustive investigation of the behavior of these
elements and at the same time, shed light to the issue of the status of Spanish n-words. In the following section I present the relevant Research Questions (RQs) for the study at hand.

### 3.3 Research Questions, Hypotheses and Predictions

As discussed in the background section of this experiment as well as section 2.3 of this dissertation, the behavior of Spanish n-words is a matter of controversy. First, we have seen that there are competing theories to account for the behavior of Spanish n-words. These hypotheses can be summarized as follows: (i) Spanish n-words are NQs (Hypothesis A in Vallduví (1994)), (ii) Spanish n-words are English/Basque-like NPIs (Hypothesis B), (iii) Spanish n-words are lexically ambiguous between NQs and NPIs (Hypothesis C); and (iv) Spanish n-words are indefinites that are negation dependent, i.e., prototypical NPIs. I will refer to this last one as Hypothesis D. The relevant questions that stem from these hypotheses are the following:

RQ1: Is there a difference between Basque and English NPIs?
RQ2: Is there a difference between Spanish n-words and English/Basque NPIs?
RQ3: Is there a difference between English NQs and Spanish n-words?

RQ1 was not designed to provide evidence in support of any of the hypotheses described above, but rather to test whether Basque and English NPIs show the same behavior before performing further cross-linguistic comparisons.

On the other hand, RQ2 was designed to test Hypothesis B. If n-words are English or Basque-like NPIs, then they should behave like these elements across all diagnostics. If this is the case, then this provides enough evidence to reject Hypothesis A and C in support of Hypothesis B or D, given that NPIs are assumed to be indefinites as well.

RQ3 was designed to test Hypothesis A. If n-words are in fact, English-like NQs, then we would expect them to behave the same across all diagnostic tests. If this is the case, this would automatically reject Hypotheses B and D, and possibly C since it would provide evidence that nwords do not behave like NPIs in any of the cases.

An additional possibility is that Spanish n-words might very well behave neither like English/Basque-like NPIs nor like English-like NQs. This would provide evidence in support that Spanish n-words are non-negative indefinites, or Hypothesis D.

### 3.4 Methods

### 3.4.1 Participants

The data below was collected from 15 native speakers of Northern Peninsular Spanish (9 female, 6 male), with a mean age of 22.93 years. They had all acquired Spanish from birth and had lived in Spain all throughout their lives. All participants completed a background questionnaire that was conducted during the experiment, and they all reported to never have lived abroad for more than a year. They also reported having basic knowledge of Basque, English, French or German.

Additionally, data from 15 native speakers of English (7 female, 8 male), with a mean age of 28.06 years was also collected. They all had acquired English from birth and lived in the Chicago area at the time of the experiment. All participants were either in college at the time of the experiment or had completed their college education. They all reported to never have lived abroad for more than a year. All these participants reported having a moderate knowledge of Spanish, French or German.

The last group was composed by 15 Basque/Spanish bilinguals ${ }^{18}$ ( 8 female, 7 male), with an average age of 24.26 years. They all had acquired Basque and Spanish from birth and reported having received all their education in Basque. All the participants lived in surrounding areas of Bilbao, Vitoria or San Sebastian. They all reported to never have lived abroad but having low-tomoderate knowledge of English, French, and German.

In addition, all of the participants in the three groups mentioned above were either in college at the time of the experiment or had completed their college education.

### 3.4.2 Stimuli

The critical stimuli consisted of 34 monolingual Basque, Spanish and English sentences. The stimuli were created according to the four different diagnostic tests presented in section 3.2. Additionally, a fifth diagnostic test was administered to check the grammaticality of postverbal nwords, NQs and NPIs without a negative marker. For each of the diagnostic tests, i.e., fragment answers, almost/absolutely modification, grammaticality in preverbal position, yes/no questions and if-clauses; as well as grammaticality in postverbal positions, 6 lexicalizations were created. The exception being, Diagnostic 4 for which 10 lexicalizations were created: 5 containing yes/no questions and other 5 containing if-clauses. Table 2 shows the examples of the critical stimuli divided by diagnostic test and language. The sentences shown below are equivalent across the three languages.

All three groups were presented with the entire set of stimuli for each language. In addition, a total of 60 distractors were used. In order to keep the distractors identical for each language,

[^18]participants were presented with a series of distractors that contained number agreement mismatches within the DP.

Table 2. Sample stimuli by diagnostic test, language and type of negative element

|  | English NQs | English NPIs | Spanish n-words | Basque NPIs |
| :---: | :---: | :---: | :---: | :---: |
| Diagnostic 1: <br> Fragment answers | What did John say? NOTHING | What did John say? ANYTHING | $\begin{aligned} & \text { ¿Qué dijo Juan? } \\ & \text { NADA } \end{aligned}$ | Zer esan zuen Jonek? EZER |
| Diagnostic 2: Almost/Absolutely modification | What did John say? Almost NOTHING | What did John say? Almost ANYTHING | ¿Qué dijo Juan? Casi NADA | Zer esan zuen Jonek? Ia EZER |
| Diagnostic 3: Grammaticality in preverbal position | NO ONE runs 5 miles in 2 minutes | ANYONE runs 5 miles in 2 minutes | NADIE corre 5 km en 2 minutos | INORK egiten ditu 5 km korrika |
| Diagnostic 4: yes/no questions | Did you see NOTHING? | Did you want ANYTHING? | ¿Viste NADA? | EZER ikusi al duzu? |
| if-clauses | If you see NOTHING, let me know | If you see ANYTHING, let me know | Si ves NADA, avísame | EZER ikusten baduzu, abisa nazazu |
| Diagnostic 5: Grammaticality in postverbal position without NEG | John did NOTHING all day | John did ANYTHING all day | John hizo NADA durante todo el día | Jonek egin zuen EZER egun osoan |

### 3.4.3 Procedure

The entire experiment was distributed to the participants through Google Forms, an online survey service that allows for data collection and storage. First, all three groups filled out a background questionnaire. Next, participants were given detailed instructions on how to perform the Acceptability Judgment Task, followed by 5 practice sentences (see Appendix D). These directions were designed following González-Vilbazo et al. (2013) to explain the idea of a linguistic judgment and ensure that participants were able to understand the nature of the task. These explanations involved both instructions on how to rate a stimulus on a 1 to 7 Likert scale, 7 being the most acceptable; and an explanation as to why a particular rating was chosen, as shown in example (13).
(13) $1=$ This sentence doesn't look like something I would say/ I don't like this sentence at all/ This sentence is unnatural/I would never use it in a conversation.
$2=$ This sentence looks like something that I would very rarely say/ I don't like this sentence/I would probably never use it in a conversation.

3= I neither like nor dislike this sentence.
4= I might have said this sentence at some point/ I have heard other people say something like this/ This sentence looks somewhat unnatural.

5= I like this sentence and it looks somewhat natural.
$6=$ I like this sentence, it looks natural and it seems like something that I would say.
7= This sentence looks like something I often say/ I like this sentence/ This sentence sounds natural/ I often use this sentence in conversations.

Next, the three groups were provided with the entire set of stimuli, including critical stimuli and distractors, which amounted to a total of 94 sentences. Both critical stimuli as well as distractors were pseudorandomized. The stimuli were presented to the participants in blocks of ten, in order
to minimize the effects of fatigue in their judgments. On average, participants finished the experiment in 30 to 45 minutes. For each language, the ratings for each stimuli type (i.e. fragment answers, almost modification, etc.) were compiled and averaged. The average ratings for each stimuli type in each language were plotted in order to compare for differences.

### 3.5 Results

In the following section I present the results obtained out of the five diagnostic tests described in section 3.4.2 for each of the negation-related elements across the three languages. After this, I provide a table that summarizes the results obtained for better comparison and analysis.

Figure 1 summarizes the acceptability ratings (displayed in the vertical axis) obtained for those stimuli designed according to Diagnostic 1 for each language. The error bars report the $95 \%$ Confidence Intervals. Recall that this diagnostic tested the ability to appear in fragment answers, which is a property of NQs but not of NPIs.

Figure 1. Average acceptability ratings for Diagnostic 1


The acceptability ratings in Figure 1 above corroborate the findings in Vallduví (1994) for Diagnostic 1. The occurrence of NQs $(M=6.87, S D=0.352)$ and Spanish n-words $(M=6.93, S D$ $=0.258)$ is highly acceptable in fragment answers. On the contrary, Basque NPIs ( $M=1.00, S D$ $=0.00)$ and English NPIs $(M=1.07, S D=0.258)$ are sharply unacceptable. Thus, for Diagnostic 1, Spanish n-words and NQs seem to pattern together. At the same time, Basque and English NPIs show the opposite behavior: these elements are not allowed in fragment answers.

Figure 2 displays the acceptability ratings for those stimuli designed in order to test Diagnostic 2, which involved almost/absolutely modification.

Figure 2. Average acceptability ratings for Diagnostic 2


Once again, the acceptability ratings for Diagnostic 2 confirm Vallduvi's (1994) findings. English NQs $(M=6.72, S D=0.117)$ and Spanish n-words $(M=6.91, S D=0.076)$ allow almost/absolutely modification, as shown in Figure 2. However, English ( $M=1.34, S D=0.143$ ) and Basque NPIs ( $M=1.13, S D=0.087$ ) do not accept this type of adverbial modification. Thus, with regards to

Diagnostic 2, NQs and Spanish n-word show a similar behavior, very different from that of Basque and English NPIs.

Regarding Diagnostic 3, or grammaticality in preverbal position, English NQs ( $M=6.85$, $S D=0.442)$ and Spanish n-words $(M=6.70, S D=0.637)$ pattern together. Both types of negative elements are acceptable in preverbal position. On the other hand, English $(M=1.45, S D=0.617)$ and Basque NPIs $(M=1.18, S D=0.392)$ pattern together with regards to the fact that they are not acceptable in this position, as illustrated in Figure 3.

Figure 3. Average acceptability ratings for Diagnostic 3


Figure 4 below show the acceptability ratings for Diagnostic 4, which tested the ability of negationrelated elements to appear in yes/no questions and if-clauses.

Figure 4. Average acceptability ratings for Diagnostic 4


Figure 4 shows an interesting pattern. The rates of acceptability for English ( $M=6.55, S D=0.890$ ) and Basque NPIs $(M=6.39, S D=0.715)$ are very high but so are the rating of English NQs in these types of contexts ( $M=5.97, S D=0.75$ ). Recall that as discussed in section 3.2.1, both NPIs and NQs are acceptable in these contexts but with different interpretations. While NPIs are interpreted as non-negative existentials, NQs are interpreted as negative universals. In other words, those sentences that contain NQs are interpreted as negative in yes/no and if-clauses and those that contain NPIs are interpreted as non-negative. The interesting datum comes from sentences with Spanish n-words. The ratings of these sentences show much more variation $(M=3.28, S D=2.32)$ in these contexts. Closer examination of this variation shows that it is due to the position of the $n$ word in the sentence. As shown in Figure 5 below, while preverbal n-words are acceptable in these contexts $(M=5.44, S D=1.13)$, postverbal $n$-words are not $(M=1.13, S D=0.33)$.

Figure 5. Average acceptability ratings for preverbal and postverbal n-words in Diagnostic 4


The average ratings for the final diagnostic, i.e., Diagnostic 5, are displayed in Figure 6. This diagnostic was designed to test grammaticality in postverbal position in the absence of a negative marker. Notice, that this diagnostic was not part of Vallduvi's (1994) original study and was introduced in this experiment to further compare the behavior of Spanish n-words to that of other negation-related elements in English and Basque.

As shown in Figure 6, in the absence of a negative marker, the only elements that are allowed in postverbal position are English NQs ( $M=6.27, S D=0.188$ ). This result is not surprising since NQs, by virtue of being inherently negative, should be allowed in this positions. On the other hand, Spanish n-words are highly unacceptable in these contexts $(M=1.15, S D=$ 0.097) and pattern with English $(M=1.18, S D=0.104)$ and Basque NPI $(M=1.12, S D=0.088)$.

Figure 6. Average acceptability ratings for Diagnostic 5


Table 3 below summarizes the behavior of NQs, Spanish n-words; as well as English and Basque NPIs across all diagnostic tests. Starting with Basque and English NPIs, these elements pattern together across all five different diagnostic tests. On the contrary, English NQs and n-words show the opposite behavior to that of NPIs. In the first three diagnostic tests, English NQs and Spanish n-words pattern together. However, for Diagnostics 4 and 5, Spanish n-words show a different behavior than that of English NQs. While the latter show a higher degree of acceptance for Diagnostic 4, hence the question mark shown in Table 3, the former are not acceptable in these contexts at all. In addition, English NQs are allowed to occur in postverbal position without the need of a negative marker (Diagnostic 5). Spanish n-words, on the other hand, are not. These results are very interesting and instigate further discussion.

Table 3. Comparison of NQs, Spanish n-words and NPIs across Diagnostics

|  | Diagnostic |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1: <br> Fragment | 2: <br> Almost/Absolut. <br> modification | 3: <br> Grammaticality <br> in preverbal <br> position | 4: <br> Yes/no <br> questions <br> \& if- <br> clauses | 5: <br> Grammaticality <br> in postrerbal <br> position without <br> NEG |  |
| English <br> NQs | Y | Y | Y | Y | Y |  |
| Spanish <br> n-words | Y | Y | Y | Only in <br> preverbal <br> position | N |  |
| English <br> NPIs | N | N | N | Y | N |  |
| Basque <br> NPIs | N | N | N | Y | N |  |

### 3.6 Discussion

In order to facilitate the discussion, I will go back to the original research questions in section 3.3. Recall that the goal of this experiment was to assess which of the hypotheses regarding the behavior of n -words is better suited to account for the findings in this experiment.

The first research question, repeated below, was designed in order to test whether English and Basque NPIs were the same type of element.

RQ1: Is there a difference between Basque and English NPIs?

The findings from this experiment provide evidence in support that there is no difference in the behavior of Basque and English NPIs. Both elements showed similar acceptability ratings across all diagnostics. This leads me to conclude that Basque and English NPIs are, in fact, the same.

The second research question compares the behavior of Spanish n-words to that of NPIs across diagnostics. The relevant research question is re-stated below for convenience.

RQ2: Is there a difference between Spanish n-words and English/Basque NPIs?

The findings show that Spanish n-words behave differently across all diagnostic tests when compared to English/Basque NPIs, at least for the diagnostic tests presented in Vallduví (1994). The only diagnostic in which n-words behave like English/Basque NPIs is in Diagnostic 5: nwords always need to co-occur with the sentential negative marker in postverbal position. This is a property shared with English/Basque NPIs as well; however, English/Basque NPIs can also be licensed in yes/no questions and if-clauses, i.e. non-veridical contexts, without the need for a negative marker at all. The findings from this experiment provide enough empirical evidence to reject Hypothesis B: Spanish n-words are not English/Basque-like NPIs because they show a dissimilar behavior across diagnostics. This leads me to conclude that English and Basque negation-related elements are not really NPIs but Affective Polarity Items (APIs) as defined by Giannakidou (2000) (see section 2.3.1). This explains why these elements are licensed in a larger variety of contexts than Spanish n-words.

At this point we are left with three possible hypotheses: Hypothesis A, which states that Spanish n-words are NQs; Hypothesis C, n-words are lexically ambiguous between NQs and NPIs; and Hypothesis D, n-words are indefinites that are negation dependent, i.e., prototypical NPIs. This brings me to the last research question of this experiment:

RQ3: Is there a difference between English NQs and Spanish n-words?

At a first glance, it seems that Spanish n-words and NQs behave alike, at least for the first three diagnostic tests. However, regarding Diagnostics 4 and 5 Spanish n-words and English NQs do not behave similarly. First, NQs show higher acceptability ratings when they appear in yes/no and if-clauses this might be due to their inherent negativity. Take for instance the sentences in (14a-b).
a. They asked me if no one knew the answer
b. Did no one come to the party?

The sentences in (14a-b) can only be interpreted by the speakers as negative, with the meaning of 'no person at all'. On the other hand, Spanish n-words show a different pattern in these contexts: while preverbal n-words are acceptable in these contexts, postverbal n-words are not. Additionally, English NQs are completely licit when they appear in postverbal position without sentential negation, Spanish n-words are not. This fact, taken together with the unacceptability of postverbal n-words in yes/no questions and if-clauses, points to a non-negative characterization of Spanish nwords. This suggests that Hypothesis A—at least with respect to the characterization of Spanish n-words as negative-may also not be suitable to explain the behavior of these elements. This still leaves open the issue of Spanish n-words showing quantifier-like behavior across Diagnostics 1, 2 and 3. In his dissertation Martín-González (2002) proposes as solution to account for the quantifier-like behavior of Spanish n-words when submitted to the almost/absolutely modification test. Consider the sentence in (15)
(15) Absolutamente nadie pudo ver absolutamente nada absolutely No one could see absolutely nothing 'Absolutely no one could see absolutely anything'

In (15), the n -words nadie 'no one' and nada 'nothing' have both been modified by absolutely. Martín-González (2002) observes that if almost/absolutely modification were to imply that n words are universal negative quantifiers, (15) should have a DN reading, contrary to fact. Nonetheless, as shown in the gloss in (15), the n-word nada is interpreted as an existential indefinite like 'anything'. Thus, Martín-González concludes that the existence of sentences like (15) questions the reliability of the 'almost/absolutely' modification test to determine quantifier-
like status. In this connection, Martín-González (2002) discusses Blaszczak (1998) observation that 'almost/absolutely modification' is not restricted to universal quantifiers and that these adverbs can, in fact, modify a variety of expressions that constitute endpoints on a scale, see the Spanish example in (16).
(16) El soldado está casi muerto
the soldier is almost dead
'The soldier is almost dead'

As shown in (16), casi 'almost' is able to modify the adjective muerto 'dead', even though the latter is not a universal quantifier. Given this evidence, we can conclude that the fact that n -words can be modified by 'almost/absolutely' does not necessarily mean that these elements are universal quantifiers. Taking this into account Spanish n-words can be defined along the lines of Horn (1989): "indefinites are endpoints on a semantic scale with universal quantifiers on the opposite end"

This leaves us with two hypotheses: Hypothesis C and Hypothesis D. I will discuss the implications of adopting one hypothesis over the other in turn, starting with Hypothesis C. If we adopt the hypothesis that claims that Spanish n-words are lexically ambiguous between NQs and NPIs, then we can straightforwardly account for the asymmetry that n-words display between Diagnostics 1-3 and 4-5. N-words are allowed in the contexts 1-3 because the n -word that is inserted in these contexts is a NQ. If this were the case, one could predict that the contexts in 4-5 would allow for n-words to be inserted in the form of an NPI, but this is not the case. As we can see in Diagnostic 4, unlike NPIs, n-words are not allowed in yes/no questions and if-clauses. Thus, an analysis that adheres to Hypothesis C needs to explain why n-words are not allowed in these contexts. In addition, the assumption that native speakers of Spanish have two phonologically
identical entries for $n$-words with different feature compositions in their lexicon seems unwarranted.

On the other hand, Hypothesis D, which claims that Spanish n-words are indefinites that need to establish an Agree relation with negation, seems to be better suited to account for the data above. If Spanish n-words are negation dependent, this explains their unacceptability in contexts such as those of Diagnostics 4-5. Simply, these elements are not allowed in these contexts because they lack any negative import and need to obtain their negative value through the agreement with the negative marker. Thus, in those contexts where the negative marker is absent, the use of nwords becomes unacceptable. However, the behavior of Spanish n-words in Diagnostics 1-3 brings up a crucial question: if n-words are indefinites with no negative import, where is their negative value coming from in preverbal position and fragment answers? Although I will not discuss this issue further in this chapter, in chapter 4 I provide evidence that that n-words are indefinites that receive their negativity in preverbal position through a covert negative feature inside the PolP projection.

### 3.7 Conclusion

In conclusion, the acceptability judgments in this chapter provide empirical evidence to reject Hypothesis B, which claims that n-words are English/Basque-like NPIs. The findings from this experiment show that n-words and English/Basque NPIs behave differently across the majority of the contexts, and as consequence, they cannot belong to the same set. In addition, I have also provided experimental evidence to reject Hypothesis A in favor of Hypotheses C and D. Thus, nwords cannot be negative since if they carried negative import their occurrence in the contexts shown in Diagnostics 4-5 would be more acceptable. However, the quantifier-like behavior of n-
words is still intriguing. Further, I have explained that adopting Hypothesis C faces two problems: (i) one needs to adhere to the assumption that native speakers of Spanish have two phonologically identical items with two different feature compositions, and that what determines what form gets inserted over the other is context; and (ii) additional machinery is needed to explain why n-words are not allowed in yes/no questions and if-clauses. Thus, I conclude that the hypothesis that better accounts for the data is Hypothesis D, which states that Spanish n-words are indefinites that are negation dependent.

Finally, in this chapter I have concluded that Spanish n-words are prototypical NPIs because they are only licensed in negative contexts, i.e., anti-veridical (see section 2.1 ). On the other hand, I have also argued that English/Basque NPIs are better characterized as APIs since they are licensed in a wider array of contexts, i.e., non-veridical (see section 2.1), which also include negation. In the remaining chapters of this dissertation, I will refer to Basque/English elements as APIs and continue to refer to Spanish negative elements as n-words for the sake of consistency.

## 4 POSITION

The goal of this experiment is to provide a better understanding of the behavior of Spanish n-words in preverbal position. This will be done through looking at Basque/Spanish CS sentences containing preverbal n -words.

### 4.1 Introduction

Spanish n-words are only allowed to appear in postverbal position if they are c-commanded by sentential negation or another n-word (Bosque, 1980; Laka, 1990). This is exemplified in (1a) with the postverbal n-word nadie 'anyone/no one'. However, in preverbal position, sentential negation disappears, as shown in the contrast between (1b) and (1c):
(1) a. No apareció nadie.
neg appear-past no one
b. *Nadie no apareció
no one neg appear-Past
c. Nadie apareció

NO ONE appear-pAST
'No one showed up'

This pattern is not universal. In Basque, for instance, APIs such as inor 'anyone' require sentential negation in postverbal and preverbal position. This is shown in example (2).
(2) a. Ez zen agertu inor
neg aux-past appear anyone
b. Inor ez zen agertu
anyone neg aux-past appear


As described in section 2.3, there are many analyses of the contrast between (1b) and (1c) (Laka, 1990; Zanuttini, 1994; Herburger, 2001; Giannakidou, 2000; Zeijlstra, 2004; Tubau, 2008; among others). In this chapter, I focus on Tubau (2008). Working within a Distributed Morphology (Halle \& Marantz, 1993; Embick \& Noyer, 2007) framework, she proposes that the contrast between (1b) and (1c) is due to a post-syntactic reparation operation called Obliteration (see subsection 2.3.3.1.). This operation deletes the $[\mathrm{neg}]$ syntactic terminal inside the $\mathrm{Neg} / \mathrm{PolP}$ projection before Vocabulary Insertion. The goal of this chapter is twofold: (i) to propose that Obliteration can in fact apply to a Vocabulary Item after it has undergone Vocabulary Insertion; and (ii) to provide empirical evidence in support of analyses such as Zeijlstra (2004) and Tubau (2008), which claim that preverbal n-words are non-negative and they receive their negativity by virtue of being on a Spec-head configuration with a covert [neg] feature in NegP/PolP. I base my argument on data drawn from negative sentences in Basque/Spanish CS.

Chapter 4 is organized as follows. In section 4.2 I introduce the theoretical assumptions that I will adopt in this experiment. Section 4.3 introduces the data base and makes predictions drawn from the theoretical background. Section 4.4 presents the methods employed in this experiment. Section 4.5 uses the framework presented in Section 4.2 to provide an analysis of the data presented in Section 4.3. Section 4.6 concludes this chapter.

### 4.2 Theoretical Assumptions and Empirical Questions

### 4.2.1 Syntactic Assumptions

The syntactic assumptions that I adopt for the experiment at hand are the following. First, sentential negation is the head of the functional projection PolP (see section 2.2). PolP is located above TP for both Basque and Spanish (Laka, 1990). The feature Pol[neg] in the head of PolP, spells out as /no/ in Spanish and as/ez/ in Basque, this is illustrated in the syntactic representation in example (21) in section 2.2 repeated below for convenience.

## (3) Location of PolP in Basque \& Spanish



Second, I assume that [neg] and the Basque API or the Spanish n-word are in a syntactic dependency (Bosque, 1980; Laka, 1990; Zeijlstra, 2004; Tubau, 2008). This syntactic dependency is built following Pesetsky \& Torrego's $(2004,2007)$ feature-sharing version of Agree described in section 2.4.2. Under this view, n -words are merged into the structure as indefinites with an uninterpretable unvalued polarity feature, i.e., uPol[ ], which is valued as it enters an Agree relationship with $\mathrm{iPol}[\mathrm{neg}]$.
(4) No [ $\mathrm{iPol}[\mathrm{neg}]]$ vino nadie [uPol[ ]]
$\qquad$

Third, I assume that once valuation of the n-word has occurred, the iPol[neg] feature is the one interpreted at LF. In addition, I take that preverbal n-words and APIs are in Spec, PolP at LF (Giannakidou \& Quer, 1997) or they have a copy in that position.

Finally, I assume the Distributed Morphology framework outlined in section 2.5. Two assumptions from this framework are relevant to the current discussion. The first one is a realizational approach to morphology, where the input to the computational systems is a list of abstract morphemes and roots without a phonetic matrix. This list is referred to as List 1 . Phonological matrices are assigned at the interface between syntax and the externalizations systems: thus, a second list, called List 2, consists of rules of phonetic realization for the morphemes of List 1 . This process of phonetic assignation is referred to as Vocabulary Insertion. The second one is that the interface between syntax and the externalization systems is complex, and PF operations such as Impoverishment or even Obliteration may apply to syntactic terminals before Vocabulary Insertion. Before I move on to the experiment, let me revisit how preverbal negation works in Basque and Spanish.

### 4.2.1.1 Negation in Basque and Spanish

Basque APIs like inor 'anyone', ezer 'anything' and inoiz 'ever' are licensed in nonveridical contexts (Giannakidou, 2002). Recall, that non-veridicality involves contexts such as questions, conditionals, disjunctions and verbs of volition (see section 2.1. for a definition of nonveridicality). Examples of these contexts are given in (5) and (6), where the Basque APIs inor 'anyone' and ezer 'anyone' are licensed in an interrogative and if-clause context respectively.
(5) Inor etorri al da?
anyone come Q aux-presnt
'Did anyone come?'
(6) Ezer ekartzen ba- dute, abisatu
anything bring if aux-PRSNT.3PL, let.me.know
'If they bring anything, let me know'

A subset of these non-veridical contexts is negation. In negative contexts, Basque APIs always need to co-occur with the sentential negative marker $e z$ 'not' regardless of their position in the sentence. This is shown in (7).
a. Ez zen inor etorri
neg aux-past anyone come
b. Inor ez zen etorri anyone neg aux-past come
c. *Inor zen etorri
(Inversion of AUX) anyone aux-past come
d. *Inor etorri zen
anyone come aux-past
'No one came'

The examples in (7a-b) also highlight another property of the syntax of Basque negation. The negative head $e z$ attracts the auxiliary with the result that the latter appears to the left of the main verb, unlike any other sentence type, in which the complement-head order is the norm.

On the other hand, Spanish does not have Basque-style APIs. The most similar items that Spanish has are the so-called n-words like nadie 'no one', nada 'nothing' and nunca 'never'. The difference between Basque APIs and Spanish n-words is that the latter are licensed only in negative contexts. This can be seen in examples (9-11). In example (9), nadie 'nothing' is licensed by a
sentential negative marker spelled out as no. In (10) and (11), where nadie appears in an interrogative or conditional context, i.e., non-veridical, the resulting sentence is ungrammatical:
(9) No vino nadie neg came no one
(10) $\quad{ }_{i}$ ha $\quad$ venido nadie?

AUX-3SG.PRSNT COMe NO ONE
'Did anyone come?'
(11) *Si traes nada, avísame

If bring-2SG.PRSNT nothing, let me know
'If you bring anything, let me know'

The difference between Basque APIs and Spanish n-words is shown in the contrast between (7) and (9)-(11) can be formalized in terms of feature structures. Since Basque APIs are sensitive to the presence of non-veridical operators, and this connection constitutes a syntactic dependency, we assume that Basque APIs contain a morpho-syntactic reflex of non-veridicality. I call this reflex the feature [-veridical]:
(13) Basque API: -veridical[ ]

This feature is unvalued on the API and needs to be valued by a local, c-commanding valued [veridical] feature present in $Q$-particles, [neg] and the if-complementizer, as shown in (13). Spanish n-words, on the other hand, contain an uninterpretable unvalued polarity feature (see Tubau, 2008; Zeijlstra, 2004 for argumentation and examples).
(14) Spanish N-word: uPol[ ]

As mentioned in the introductory section of this chapter, Spanish n-words show an interesting asymmetry, which is absent in Basque: While $n$-words in postverbal position require a spelled-out
sentential negative marker-or some other negative morpheme-in preverbal position the sentential negative marker does not spell-out. This is shown in the contrast between (15b) and (15c).
a. No vino nadie neg came no one
b. *Nadie no vino No one neg came
c. Nadie vino
no one came
'No one came'

In summary, while in Basque APIs need to be accompanied by the sentential negation in all cases, Spanish n-words appear on their own when placed in preverbal position.

As discussed in section 2.3.3.1, in order to account for the distribution of n-words in Spanish, Tubau (2008) proposes that the covert realization of the sentential negative marker in preverbal position is due to the obliteration rule in (16), a rule specific to the Spanish grammar.
(16) $\quad[\mathrm{neg}] \rightarrow \emptyset / \mathrm{uPol}[\mathrm{Neg}]$ $\qquad$ (Modified from Tubau, 2008)

She argues that this rule prevents the accidental repetition of two adjacent negative features in the same PolP projection by suppressing the [neg] syntactic terminal in the Pol-head before Vocabulary Insertion.

Let me discuss the consequences of adopting (16), particularly as it plays out in a bilingual speaker of Spanish and Basque. If (16) is part of the linguistic system of these bilinguals, how do we prevent this rule from incorrectly generating sentences in which the Basque sentential negative marker $e z$ is deleted? A naïve answer to this question could be something like: "(16) is a rule of

Spanish grammar, not Basque grammar, and bilinguals keep both systems separate". However, once I articulate what I understand as "grammar" in more detail, we will see that this response is insufficient.

### 4.2.1.2 A Minimalist and DM Model of a Bilingual I-language

I follow the model of a bilingual I-language outlined in Vergara and López (forthcoming). Thus, I assume one grammatical system and that any duplication of grammatical features should be adopted only in the face of considerable empirical evidence. Further, I follow MacSwan (1999) in assuming that there is only one computational system, as there is only one main operation Merge. Moreover, I assume that there is only one List 1. In particular, there is no reason to assume that a functional morpheme like [neg] would have to be duplicated in two separate List 1s. Rather, a single morpheme [neg] should spell-out in two forms, as /ez/ or as /no/. I also assume that there is only one List 2 since there is no strong reason to duplicate the rules that spell-out [neg] as the Basque negative marker /ez/ or the Spanish/no/. Thus, I simply assume that bilinguals have one system of spelling-out syntactic terminals. In fact, some recent work by Den Dikken (2012) and González-Vilbazo and López (2013) has adopted exactly this assumption. Notice that a direct consequence of the assumption that there is only one List 2 in the grammar of bilinguals is that items from "both languages" might be in competition.

Now that I have outlined what a model of a bilingual I-language looks like within a minimalist and DM framework let me return to the Obliteration rule in (16) and the original question: How do we make sure that bilinguals apply (16) "in Spanish" but not "in Basque"? At this point, the naïve answer provided in the previous subsection according to which (16) is a rule
of Spanish grammar but not of Basque is incoherent since I assume that there is no such thing as two separate grammars.

A more promising tack could go along the following lines: Basque APIs are not n-words, as we saw in section 4.2.1.1, simply because they do not agree at a syntactic level. Consequently, Basque APIs do not feed rule (16). This solution is a good start but, as we will see in the Basque/Spanish CS data, it is still insufficient.

Before moving to the CS results let me discuss the predictions that the minimalist approaches to CS make about negative sentences in Basque/Spanish CS, as well as, the predictions that Tubau's (2008) Obliteration rule makes for CS.

### 4.2.2 Predictions

In section 2.6.3 I explained how MacSwan (1999) makes very clear predictions about negation in CS that can be applied to the language-pair under analysis in this experiment. More precisely, he predicts that those code-switches that involve Neg and T should be unacceptable due to clitization of [neg] with T. Moreover, his data from Nahuatl-Spanish CS predicts that codeswitches between the negative marker and the $n$-word should be unacceptable. Nonetheless, the switches that involve preverbal n-words should be acceptable.

Table 1 below shows the predictions that Tubau's (2008) Obliteration rule in (16) makes for CS assuming a Distributed Morphology framework and a single abstract feature [neg]. Starting with the code-switched sentence in (17), this sentence is predicted by (16) to be unacceptable. This is because (16) would delete [neg] and as a consequence the exponent/ez/ would never be inserted. On the contrary, (16) predicts that the code-switch in (18) should be acceptable because nadie triggers deletion of [neg]. On the other hand, the sentence in (19) is predicted to be acceptable:
there is no n-word in the structure of (16) (recall that inor 'anyone' is not an n-word but an API) and thus, (16) is not triggered. Likewise, (20) is predicted to be unacceptable because the Basque API does not trigger deletion of [neg]. In the CS examples below Basque is represented in italics and Spanish in regular font.

Table 1. Tubau's (2008) predictions for CS

| N | CS Sentence <br> 'No one came home' | Prediction |
| :---: | :--- | :---: |
| $\mathbf{1 7}$ | Nadie ez zen etorri etxera <br> NO ONE NEG AUX-PAST come home | $\mathbf{x}$ |
| $\mathbf{1 8}$ | Nadie zen etorri etxera <br> NO ONE AUX-PAST come home | $\checkmark$ |
| $\mathbf{1 9}$ | Inor no vino a casa <br> ANYONE NEG come-PAST home | $\checkmark$ |
| $\mathbf{2 0}$ | Inor vino a casa <br> ANYONE come-PAST home | $\mathbf{x}$ |

In fact, these predictions are not fulfilled. As we shall see in the CS data below, the sentential negative marker, regardless of its language, is able to license Spanish n-words as well as Basque APIs. This is an interesting finding since these types of code-switches were reported to be unacceptable in MacSwan (1999). Additionally, the judgments for (17) and (18) turn out to be the reverse of what Tubau's Obliteration rule in (16) predicts: the sentential negative marker is never obliterated if T is Basque.

### 4.3 Methods

### 4.3.1 Participants

The code-switched data shown below was collected from 15 simultaneous Basque/Spanish bilinguals— 9 females and 6 males - of an average age of 24.7 years. These were individuals who learned both languages before the age of five and had kept using them uninterruptedly throughout their lives. All participants lived in surrounding areas of Bilbao and reported having obtained the EGA (Euskararen Gaitasun Agiria), which is a certificate granted by the Basque Government certifying proficiency of the Basque language. They also reported using both of their languages on a daily basis and being frequent code-switchers. All the participants had at least college education.

Each participant completed the Bilingual Language Profile (BLP) questionnaire (Birdsong et al. 2012). The BLP is a questionnaire for assessing language dominance through self-reports and it outputs a continuous dominance score and a general bilingual profile taking into account the following modules: language history, language use, language proficiency, and language attitudes. The responses to the BLP questionnaire generated a language score for each module and a global score for each language, the maximum global score being 218. These scores were converted to a scale score with the Basque score subtracted from the Spanish score. A score near zero indicated balanced bilingualism, and a more positive or negative score reflect Spanish or Basque dominance respectively. The scores ranged from -33 (slightly Basque dominant) to 21 (slightly Spanish dominant). Figure 1 provides the distribution of the Basque/Spanish bilinguals' dominance scores.

Figure 1. Language dominance as a function of group according to the BLP


### 4.3.2 Stimuli

The monolingual Spanish and monolingual Basque stimuli displayed in Table 2 below consisted of a total of 12 stimuli: 4 structures with 3 lexicalizations for each structure. This formed a total of 24 monolingual stimuli for both languages. Both sets of stimuli were designed according to position of the n-word/API and the realization of overt negation.

The CS stimuli consisted of 9 code-switched structures containing n-words and APIs with 5 lexicalizations for each structure, which formed a total of 45 critical stimuli. Table 3 shows all the different conditions that were tested for the CS sentence 'No one came home'. The stimuli were designed according to position of the $n$-word/API (Preverbal, in examples (33)-(36) vs. Postverbal, in examples (29)-(32)), the realization of negation as either overt or covert, the language of Neg and T; and the language of the n-word/API, which alternated between Basque and Spanish. Additionally, for the Preverbal position another condition was tested: inversion of the auxiliary, as shown in (35).

Table 2. Monolingual Stimuli by language: (B) asque and (S)panish

| N | Pos. n-word/API | Overt Neg? | Language | Stimuli <br> 'No one came home, |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 1}$ | Post-V | YES | S | No vino nadie a casa <br> NEG come-PAST No one home |
| $\mathbf{2 2}$ | Post-V | NO | S | Vino nadie a casa <br> come-PAST No one home |
| $\mathbf{2 3}$ | Pre-V | NO | S | Nadie vino a casa <br> No one come-PAST home |
| $\mathbf{2 4}$ | Pre-V | YES | S | Nadie no vino a casa <br> No ONE NEG come-PAST home |
| $\mathbf{2 5}$ | Post-V | YES | B | Ez zen inor etorri etxera <br> NEG AUX-PAST ANYONE come home |
| $\mathbf{2 6}$ | Post-V | NO | B | Etorri zen inor etxera <br> come AUX-PAST ANYONE home |
| $\mathbf{2 7}$ | Pre-V | NO | Inor etorri zen etxera <br> ANYONE come AUX-PAST home |  |
| $\mathbf{2 8}$ | Pre-V | YES | B | Inor ez zen etorri etxera <br> ANYONE NEG AUX-PAST come home |

Table 3. Critical CS Stimuli

| N | Pos. <br> n-word/API | Overt Neg? | Lang. $\mathrm{Neg}+\mathrm{T}$ | Lang. <br> n-word/API | Stimuli <br> 'No one came home' |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 29 | Post-V | YES | S | B | No vino inor a casa NEG come-past anyone home |
| 30 | Post-V | NO | S | B | Vino inor a casa come-past anyone home |
| 31 | Post-V | YES | B | S | Ez zen nadie etorri etxera neg aux-past no one come home |
| 32 | Post-V | NO | B | S | Etorrizen nadie etxera come aux-past no one home |
| 33 | Pre-V | NO | S | B | Inor vino a casa anyone come-past home |
| 34 | Pre-V | YES | S | B | Inor no vino a casa ANYONE NEG Come-past home |
| 35 | Pre-V (Inv) Pre-V (No-inv) | NO | B | S | a. Nadie zen etorri etxera no one aux-past come home <br> b. Nadie etorrizen etxera No ONE Come aux-past home |
| 36 | Pre-V | YES | B | S | Nadie ez zen etorri etxera No ONE NEG AUX-PAST Come home |

All participants were presented with the entire set of stimuli, which consisted of the CS stimuli as well as the Basque and Spanish monolingual stimuli, all in separate blocks. A total of 70 additional distractors were used. These were part of a different project that examined Basque/Spanish codeswitches within Determiner Phrases.

### 4.3.3 Procedure

The entire experiment was distributed to the participants in an online survey format using Google Forms. First, all participants filled out a background questionnaire (The Bilingual Language Profile). Next, the participants were given detailed directions on how to perform the Acceptability Judgement Task, followed by 5 practice sentences, following González-Vilbazo et al. (2013). These 5 practice sentences were designed in order to train participants on how to rate the stimulus based on their linguistics competence. Much like in the experiment in chapter 3, participants were instructed to rate each stimulus using a 1 to 7 Likert scale, 7 being the most acceptable.

The stimuli were presented to the participants in three consecutive blocks: monolingual Spanish stimuli, monolingual Basque stimuli and CS stimuli. All stimuli were pseudorandomized. In addition, half of the participants were presented stimuli blocks in the order of monolingual Spanish, CS and monolingual Basque. The other half of the participants were presented stimuli blocks in the order of monolingual Basque, CS and monolingual Spanish. On average, participants finished the entire procedure in 45 minutes to an hour. Figure 2 illustrates the procedure followed in this experiment.

Figure 2. Experimental procedure


## $4.4 \quad$ Results

### 4.4.1 Results for Monolingual Structures

As expected, the monolingual results for Spanish and Basque are in line with the descriptions provided in section 4.2.1.1: $n$-words require sentential negation in postverbal position and prohibit it in preverbal position, Basque APIs always require sentential negation. Table 4 displays the descriptive statistics for all the repetitions of the monolingual structures from Table 2. The numbers of Table 2 are repeated below for convenience.

Table 4. Monolingual Stimuli by language: (B) asque and (S)panish

| N | Pos. <br> nword/API | $\begin{aligned} & \text { Over } \\ & \text { t } \\ & \text { Neg? } \end{aligned}$ | Lang. | Stimuli <br> 'No one came home' | M | SD | 95\% CI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | Post-V | YES | S | No vino nadie a casa neg come-past no one home | 7 | 0 | [7, 7] |
| 22 | Post-V | NO | S | Vino nadie a casa come-past no one home | 1 | 0 | [1, 1] |
| 23 | Pre-V | NO | S | Nadie vino a casa no one come-past home | $\begin{gathered} \hline 6 . \\ 8 \end{gathered}$ | 0.42 | [6.59, 7] |
| 24 | Pre-V | YES | S | Nadie no vino a casa NO ONE NEG Come-past home | $\begin{aligned} & 1 . \\ & 3 \end{aligned}$ | 0.48 | [1.06, 1.54] |
| 25 | Post-V | YES | B | Ez zen inor etorri etxera neg aux-past anyone come home | 7 | 0 | [7, 7] |
| 26 | Post-V | NO | B | Etorrizen inor etxera come aux-Past anyone home | 1 | 0 | [1, 1] |
| 27 | Pre-V | NO | B | Inor etorrizen etxera anyone come aux-past home | 1 | 0 | [1, 1] |
| 28 | Pre-V | YES | B | Inor ez zen etorri etxera anyone neg aux-past come home | $\begin{gathered} 6 . \\ 6 \end{gathered}$ | 0.51 | [6.34, 6.86] |

For Spanish, all participants accepted those sentences containing postverbal n-words preceded by the negative marker (21) and preverbal n-words without the overt negative marker (23). However, they rejected sentences like (22), where the postverbal n-word was not preceded by any negative marker; and (24) ${ }^{19}$, where the preverbal n-word was accompanied by an overt negative marker.

Regarding Basque, all participants accepted those sentences containing postverbal APIs preceded by the negative marker (25) and preverbal APIs accompanied by the overt negative

[^19](i) Nunca no nos ha faltado de comer NEVER NEG $\mathrm{Cl}^{-1 \mathrm{IPL}}$ has lacked to eat 'We have never run short of food'
marker (28). On the contrary, sentences like (26), where the postverbal API was not preceded by the negative marker; and (27), where the preverbal API was not accompanied by an overt sentential negative marker were consistently rejected.

### 4.4.2 Results for CS Structures

Table 5 displays the average participant ratings as well as the standard deviation for all the repetitions of the CS structures from Table 3 above. The numbers are repeated for convenience.

Table 5. Summary of CS results

| N | Pos. nword/ API | Lang. Neg + T | Lang. nword /API | Stimuli 'No one came home' | M | SD | 95\% CI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29 | Post-V | S | B | No vino inor a casa NEG Come-past anyone home | 6.4 | 0.52 | [6.14, 6.66] |
| 30 | Post-V | S | B | Vino inor a casa come-past anyone home | 1 | 0 | [1, 1] |
| 31 | Post-V | B | S | Ez zen nadie etorri etxera neg aux-pastno one come home | 6.7 | 0.48 | [6.46, 6.94] |
| 32 | Post-V | B | S | Etorrizen nadie etxera come aux-PASt no one home | 1 | 0 | [1, 1] |
| 33 | Pre-V | S | B | Inor vino a casa ANYONE Come-past home | 1 | 0 | [1, 1] |
| 34 | Pre-V | S | B | Inor no vino a casa ANYONE NEG Come-past home | 6 | 0.82 | [5.59, 6.41] |
| 35 | $\begin{aligned} & \text { Pre-V } \\ & \text { (Inv) } \end{aligned}$ | B | S | a. Nadie zen etorri etxera No one aux-past come home | 1.5 | 0.85 | [1.07, 1.93] |
|  | $\begin{aligned} & \text { Pre-V } \\ & \text { (No-inv) } \end{aligned}$ |  |  | b. Nadie etorrizen etxera no one come aux-Past home | 1.3 | 0.67 | [1, 1.64] |
| 36 | Pre-V | B | S | Nadie ez zen etorri etxera NO ONE NEG AUX-PAST Come home | 6.6 | 0.52 | [6.34, 6.86] |

Let's consider first the examples (29) and (31), with an n-word/API in postverbal position. These examples disconfirm those predictions made in MacSwan (1999), see section 2.6.3.1. More
specifically, in the CS data above postverbal n-words/APIs can be licensed by the sentential negative marker in the "other" language. This, however, should not be that surprising. As we know, [neg] is one of the features that can license both, Basque APIs and Spanish n-words.

Let's move onto those n-words/APIs in preverbal position, starting with the sentence pair in (33)-(34). Recall that MacSwan (1999) predicted that the switches containing n-words in preverbal position should be acceptable. The preverbal examples in Table 5 above show that this claim is not borne out. In fact, (33), with inor in preverbal position is sharply unacceptable. We can take this to follow from Tubau's model because the Basque API does not feed rule (16) and therefore the Basque API requires a spelled-out [neg]. For the same reason, (34) is acceptable: the Spanish sentential negation persists in the face of a Basque API.

Consider now the contrast between (35) and (36). The example in (35) presents a Basque TP with a deleted sentential negative marker and a Spanish n-word. Notice that (35) presents two different scenarios. This is because, as mentioned above, sentential negation in Basque attracts the auxiliary to the left, so I decided to present these two types of sentences to the participants. On the one hand, participants were presented with (35a), with the auxiliary zen 'was' displaced to the left as if a deleted sentential negative marker had attracted it. On the other, (35b) leaves zen in the normal position in declarative sentences. Notice that the position of the auxiliary does not alter the judgments. If the Obliteration rule proposed by Tubau in (16) were part of the I-language of bilinguals, then we would expect (16) to apply in this context, with the result that (36) should be unacceptable while (35) should be acceptable. In fact, the opposite is the case. These data lead me to revisit Tubau's (2008) Obliteration rule in (16).

Additionally, the CS example in (36) is also interesting for another reason. First, it confirms the findings from the experiment in chapter 3 as well as Zeijlstra (2004) and Tubau's (2008)
hypothesis, that Spanish n-words are, in fact, non-negative. The acceptability of the example in (36) provides evidence in support of this hypothesis. The $n$-word nadie cannot be negative since it requires the presence of the Basque negative marker $e z$, as shown in the contrast between (35) and (36). The example in (36) also provides empirical evidence in support of analyses such as Zeijlstra (2004) and Tubau (2008), which maintain that preverbal n-words receive their negativity from a covert [neg] feature in NegP/PolP. Thus, this example shows that the feature [neg] can surface overtly in CS. This finding will feed the analysis of Spanish NC that I will present in chapter 6.

### 4.5 Proposal and Analysis

I propose that the Obliteration rule in (16)-repeated here under (37) for the reader's convenience-should be replaced with (38). Notice, that (38) targets the phonological realization of the Spanish negative marker $/ n o /$ instead of the [neg] syntactic feature. Thus, it follows that Obliteration needs to happen after Vocabulary Insertion.

$$
\begin{align*}
& {[\mathrm{neg}] \rightarrow \emptyset /[\mathrm{Pol}: \mathrm{Neg}]}  \tag{37}\\
& / \mathrm{no} / \rightarrow \varnothing /[\mathrm{Pol}: \mathrm{Neg}] \tag{38}
\end{align*}
$$

(Tubau's (2008) obliteration rule)

The rule in (38), however, raises an issue. Since we are dealing with deleted items in CS environments, how do we know that what has been deleted in (39) is the phonological realization of the Basque sentential negation /ez/ or the Spanish /no/?
a. Inor (no/ez) vino a casa anyone neg come-past home
b. Nadie (nolez) zen etorri etxera no one neg aux-past come home 'No one came home'

Recall that in section 2.6, I discussed a well-known restriction of CS, which is that it is not possible to code-switch between a clitic and its host (MacSwan, 1999; Koronkiewicz, 2014). It seems that the feature combination that is required to yield a grammatical cliticization is specific enough that once you change the properties of either the clitic or the host, cliticization becomes unacceptable. An immediate consequence of this is that both instances of sentential negation /ez/ and /no/should be cliticized to T and therefore should not code-switch with T . This is confirmed in the examples in (40a-b).
(40) a. *Mutila ez vino boy NEG come-past
b. El niño no zen etorri
The boy NEG AUX-PAST come
'The kid didn't come'

Thus, we claim that in a context in which T is Basque, [neg] will necessarily spell-out as the Basque sentential negation /ez/ while in a context in which T is Spanish [neg] will spell out as /no/. This allows us to claim that the item that has been deleted in (41a) is $/ \mathrm{no} /$ while the item that has been deleted in (41b) is /ez/:
(41) a. Inor ne vino a casa ANYONE NEG Come-past home
b. Nadie ez zen etorri etxera NO ONE NEG AUX-PAST Come home

Bearing all of this information in mind, let's consider Table 6, which compares the predictions that the obliteration rule in (16)/(37) and (38) make.

Table 6. Predictions of the two different Obliteration rules

| Syntactic Output | Output of Tubau's <br> Pre-VI Obliteration <br> rule | Tubau's <br> prediction | Output of Post-VI <br> Obliteration rule in <br> $(34)$ | Predictions <br> of the rule in <br> $(34)$ |
| :--- | :--- | :--- | :--- | :--- |
| (42) Inor no vino a <br> casa | c(43) Inor no vino a <br> casa | CONFIRMED | API does not feed <br> rule $\rightarrow$ Inor no <br> vino a casa | CONFIRMED |

Starting with the top-left corner box (42), where the preverbal Basque API is followed by a Spanish /no/. Basque APIs feed neither (16)/(37) nor (38), since both rules refer to n-words and not to APIs. As a consequence, both rules make the right predictions for (42).

Consider now (44). Tubau's obliteration rule does not derive this sentence. This is because $(16) /(37)$ deletes the [neg] terminal node before Vocabulary Insertion and therefore the acceptable CS in (44) could never obtain under this rule. Instead, what (16)/(37) yields is the sentence in (45), where the sentential negative marker following the Spanish n-word is absent. Thus, Tubau's model incorrectly predicts that (44) should be acceptable in contradiction to the participants' judgments.

On the other hand, the obliteration rule (38) is able to make the right predictions for (42) and (44). The Basque sentential negation $e z$ will never be able to feed our obliteration rule (38) because it only targets the Spanish Vocabulary Item /no/. As a result, the Basque sentential negation /ez/ will never be obliterated.

An alternative analysis to the one proposed in this chapter could go along the following lines. Obliteration could be assumed to target the feature [neg] when it is preceded by an n-

[^20]word/API and when the [neg] feature is adjoined to Spanish T, as opposed to Basque T. However, I do not see any reason to adopt this alternative analysis since it would imply that Lexical Items come into the computational system with a tag for language. In addition, there is no reason to assume that Basque and Spanish T have diametrically opposed feature compositions. These are precisely the type of assumptions that I take to be conceptually unwarranted, as it was previously explained in section 4.2.1.3, the aim of this experiment is to develop a type of analysis in which bilinguals are taken to have only one computational system.

A more subtle variant of the distinct T approach could be articulated as follows: one could posit two T in List 1 without arbitrarily assigning them a label for language. Then, one would need to find a property that distinguishes the Spanish and Basque T. Thus, we would have a Spanish T with property $p\left(\mathrm{~T}^{\mathrm{p}}\right)$ and a Basque T without this property (T). Then we could set up a variant of rule (38) such that [neg] is deleted in the context of $\mathrm{T}^{\mathrm{p}}$ but not in the context of T . I find this path difficult to pursue because I am not able to find property $p$, particularly if property $p$ is meant to be a property relevant for the application of an Obliteration rule. Both Spanish and Basque have a [ $\pm$ past] distinction for tense, which can appear in combination with [ $\pm$ perfect] aspect and [ $\pm$ subjunctive] mood. Rather than positing an arbitrary, undetectable property $p$ I prefer to suggest the possibility that Obliteration can apply freely before or after VI. This solution seems to be more elegant, since it does not add a new assumption, but rather, eliminates an assumption (i.e.: the assumption that Obliteration must apply before VI).

### 4.6 Conclusion

In conclusion, the CS judgments provide crucial evidence that the obliteration rule in (38) and not in (16)/(37) is active in the grammar of Basque/Spanish bilinguals and by extension it can
plausibly be assumed to be present in the grammar of Spanish as well. Consequently, this chapter presented an empirical argument that at least one obliteration rule applies to a Vocabulary Item and not to a pre-spell-out syntactic terminal. Finally, the CS data above provides empirical evidence in support of analyses such as Zeijlstra (2004) and Tubau (2008), which assume that Spanish n-words are indefinites that receive their negativity through agreement with a covert feature [neg] in the head of the PolP projection.

The previous two chapters have been dedicated to the characterization of Spanish n-words, as well as the study of their behavior in preverbal contexts through CS. These are the main conclusions that can be extracted from the experiments. In the first experiment, Spanish n-words have been characterized as indefinites that are negation dependent. This finding is in line with analyses such as the ones in Zeijlstra (2004) and Tubau (2008). In the second experiment, data from Basque/Spanish CS has revealed that Spanish n-words in preverbal position receive their negativity through agreement with a covert feature [neg] in the head of the PolP projection. Later, at the level of PF, the phonological realization of [neg] as the Spanish/no/ is deleted through an Obliteration rule. In addition, we have also seen that postverbal n-words in matrix clauses are licit as long as they are licensed by a sentential negative marker or another preverbal n-word. So far, the phenomenon of NC has been analyzed in terms of syntactic agreement between the negative marker and the n-word. This has a direct consequence: NC should be subject to locality conditions. With this information in mind, the overarching goal of this chapter will be to determine whether Spanish NC is a syntactic phenomenon. This will be achieved through close examination of the behavior of NC in embedded clauses, infinitives, adjunct and complex NP clauses.

### 5.1 Introduction

As discussed in section 2.3, recent theories on Spanish NC (Zeijlstra, 2004; Tubau, 2008) assume that the phenomenon of NC is the result of syntactic agreement between the n-word and its licensor, the sentential negative marker, see example (1a) and its corresponding syntactic representation in (1b).
a. Pedro no compró nada

Peter neg buy-3SG.PASt nothing
'Peter didn't buy anything'
b. Pedro no [neg: val] compró nada [neg:__]


In the syntactic representation in (1b) the higher negative marker no 'not' establishes an Agree relationship by valuing the unvalued feature of the n-word nada 'nothing'. As a result, the sentence in (1a) yields a single negative interpretation at LF. A direct consequence of assuming that the phenomenon of NC is the result of a syntactic operation, i.e., Agree, is that it should be subject to locality conditions. This assumption makes very concrete predictions: (i) agreement between a negative marker and an n-word in a different clause, i.e., syntactic domain, should never obtain, see (2); and (ii) neither should the agreement between a negative marker and an n-word inside an adjunct clause.
(2) Javier no dijo [cP que nadie había lavado la ropa]

Javier neg say-3sg.past.ind that no one had washed the clothes
DN: 'It is not the case that Javier said that no one had washed the clothes'
*NC: 'It is not the case that Javier said that someone had washed the clothes'

The example in (2) shows that the only reading available at LF for this sentence is the DN one. The fact that the NC reading cannot obtain can be attributed to locality effects. Since the negative marker and the n-word are in different syntactic domains, i.e., the matrix and embedded clause, the agreement relation between these two elements cannot be established. Notice that the verb in the embedded clause in (2) is in the indicative. However, embedded subjunctive clauses complicate the picture in an interesting way.

Unlike finite indicative clauses like the one in (2), NC does not seem to be subject to locality conditions in embedded subjunctive clauses (see Haegeman, 1995; Herburger, 2001; Zeijlstra, 2004; among others). In other words, $n$-words can be licensed in the embedded clause by a negative marker in the matrix clause as long as the embedded verb is in the subjunctive. As shown in (3), when the embedded verb is in the subjunctive the NC reading always obtains.

> Javier no cree [CP que nadie lavara la ropa]
> Javier NEG believe-3SG.PAST.IND that NO one wash-3SG.PAST.SUBJ the clothes
> *DN: 'It is not the case that Javier believes that no one washed the clothes'
> NC: 'It is not the case that Javier believes that someone washed the clothes'

Herburger (2001) argues that examples like the one in (3) show that postverbal n-words are better characterized as APIs. Under her view, examples like (3) are mere instances of API licensing and thus, not subject to syntactic agreement. This leads to another interesting piece of data presented in Herburger (2001) to argue that n-words are, in fact, APIs, see (4).
Dudo que Pedro comprara
pro doubt-1SG.PRSNT.IND that Pedro buy-3SG.PAST.SUBJ
nada en el supermercado.
'I doubt that Pedro bought anything at the supermarket'

In (4) the n-word nada 'nothing' in the embedded clause is licensed even though no negative marker is apparent in either the matrix or the embedded clause. This is very intriguing since the sentence in (4) is not only considered grammatical by most speakers of Spanish but also triggers an NC reading such as the one observed in (3). Zeijlstra (2004) counter argues that the reason why the n-word in the embedded clause is licensed is due to an implicit negation, i.e., [iNEG], in adversative verbs like dudar 'to doubt' or negar 'to deny. While this explanation accounts for the licensing problem in (4), the locality problem in clauses like (3) and (4) still remains: if the
phenomenon of NC is a syntactic phenomenon, and as such, subject to locality conditions, why is NC not subject to locality in embedded subjunctive clauses?

Notice also that the fact that NC seems to obtain even across different syntactic domains challenges Chomsky's (2000, 2001, 2005) notion of phase. In fact, in examples (3) and (4) the negative marker and the n-word are in different spell-out domains, i.e., phases. This should straightforwardly predict that agreement between these two elements should never obtain. Nonetheless, the examples in (3) and (4) indicate otherwise.

The fact that NC does not seem to be subject to locality conditions in embedded subjunctive clauses has lead researchers to conclude that NC licensing is a semantic phenomenon (Ladusaw, 1979; van der Wouden \& Zwarts, 1993; Tonhauser, 2001; among others). This chapter will provide empirical evidence that the availability of NC is not conditioned by some semantic property of the subjunctive but by syntactic locality. The experimental data is drawn from Spanish sentences containing cases of NC licensing across embedded, infinitive, adjunct and complex-NP clauses in the indicative and subjunctive mood.

### 5.2 Theoretical Background

### 5.2.1 Syntactic Assumptions

The syntactic assumptions that I adopt for this experiment are the following. First, I assume the basic tenants of the Minimalist Program and its two main syntactic operations, namely, Merge and Agree. I also adopt Chomsky's phase theory as well as the PIC (see section 2.4.3). Finally, I will assume that Spanish n-words are indefinites that need to be licensed by a negative marker or another n-word in preverbal position.

### 5.2.2 The Locality Problem of NC

### 5.2.2.1 Embedded Subjunctive Clauses

The case presented in the introductory section of this chapter is a very interesting one since it shows that NC does not seem to respect locality in embedded subjunctive clauses. This fact challenges Chomsky's phase theory and has been often used as evidence in support of NC as a semantic phenomenon (Ladusaw, 1979; van der Wouden \& Zwarts, 1993; Ginnakidou, 2000; Tonhauser, 2001; among others). In particular, tHowever, proponents of NC as a syntactic phenomenon such as Zeijlstra (2004) and Tubau (2008) have argued that NC is in fact a form of syntactic agreement but that embedded subjunctive clauses are "transparent" to locality restrictions.

Following Giorgi's (2004), Zeijlstra (2004) argues that subjunctive clauses, as opposed to indicative ones, are not complete clauses because "they lack material in the CP layer" (Zeijlstra, 2004: 267). Giorgi (2004) shows that subjunctive clauses do not restrict movement out of the clause. She illustrates this with the phenomenon of long distance anaphora binding. In embedded subjunctive clauses, long distance anaphora can refer to antecedents in the matrix clause. This, however, is not observed in indicative clauses. Compare (5a) to (5b) from Italian.
(5) a. *Quel dittatore ${ }_{i}$ ha detto che notiziari televisivi parleranno a lunge delle proprie ${ }_{i}$ gesta.

The dictator has said that news programs.TV talk-fut.ind at long of.the own deeds
'The dictator has said that the news programs will talk a lot about his own deeds'
b. Quel dittatore ${ }_{i}$ ha detto che notiziari televisivi parlino a lunge delle proprie ${ }_{i}$ gesta

The dictator has said that news programs.TV talk-fut.Subj at long of.the own deeds
'The dictator has said that the news programs will talk a lot about his own deeds'

In addition, Giorgi (2006) also observes that embedded subjunctive clauses follow the sequence of tense pattern (see section 2.4.3.2). This can be observed in the following sentences from Italian:
(6) Gianni crede che Maria sia/*fosse incinta. Gianni believe-2SG.PRSNT.Ind that Maria is-prSnt.SUbJ/*was-past.SUbj pregnant
(7) Gianni credeva che Maria fosse/*sia incinta. Gianni believe-2sG.prsnt.ind that Maria was-past.subj/*is-prsnt.subj pregnant
(Giorgi, 2006: 105)

Giorgi accounts for the facts described above by assigning different syntactic structures for indicative and subjunctive clauses. Thus, she claims that indicative clauses have a full CP layer, which contains ForceP and FinP, while subjunctive clauses lack ForceP (cf. Rizzi, 1977) ${ }^{21}$.
(8) a. [ForceP ...[FinP]]

Indicative clauses
b. [FinP]

Subjunctive clauses

Zeijlstra (2004) resorts to the structure in (8b) to explain why subjunctive clauses are not subject to locality conditions and this results in the grammaticality of the NC reading in sentences such as (3) and (4) above. Thus, under Zeijlstra's view, the fact that these structures lack ForceP allows for the [ $\left.u_{\mathrm{NEG}}\right]$ feature of the n -word to be checked against that of the negative marker [ $\mathrm{i}_{\mathrm{NEG}}$ ] in the matrix clause. Zeijlstra's analysis is illustrated in the syntactic representation shown in (9) of the Spanish example in (3).
(9) Javier no ${ }_{\left[\mathrm{i}_{\mathrm{NEG}}\right]}$ cree [FinP que nadie ${ }_{\left[\mathrm{H}_{\mathrm{NEG}]}\right]}$ lavara la ropa]

[^21]'Javier doesn't believe that no one washed the clothes'
However, Giorgi's (2004) and Zeijlstra's (2004) analyses suffer from several problems that I will address in turn. The first problem is regarding their claim that embedded subjunctive clauses lack material at the CP layer, or more precisely, lack a ForceP projection. Notice that Clitic-LeftDislocation (CLLD) structures like the one in (10) are quite possible in embedded subjunctive clauses.
(10) Yo no creo que [a Sonia y Álvaro $]_{i}$ mis padres $\operatorname{los}$ conocieran $t_{i}$ I neg believe-prsnt that acc Sonia and Álvaro my parents 3PL.ACC meet-3PL.PAST.SUBJ el año pasado the last year
'I don't believe that Sonia and Álvaro my parents met them last year'

In CLLD structures like (10), a syntactic object like "a Sonia y Álvaro" moves from its base generated position to TopicP, a projection between ForceP and FinP that hosts topics in the structure of the left-periphery proposed in Rizzi’s (1997 et seq.). Thus, if we follow Giorgi (2004) and Zeijlstra's (2004) assumption that embedded subjunctive clauses are only headed by FinP, then this would predict that CLLD structures should never obtain in these types of clauses, contrary to fact. Thus, there is no evidence to support that subjunctive clauses are structurally deficient.

In addition, Chomsky's phase theory still poses a problem for Zeijlstra's (2004) analysis in (9). Recall that in Chomsky's phase theory, $v \mathrm{P}$ is considered a phase. Thus, disposing of Force P in the embedded clause will not be enough, since the n -word will still be inside the embedded $\nu \mathrm{P}$, i.e. a phase. As a consequence, agreement between the negative marker and the n-word in the embedded clause could never obtain: the n-word will be sent to Spell-out before Agree can take place. In addition, the matrix clause also has another $\nu \mathrm{P}$ phase, which makes the agreement relationship between the n -word and the negative marker even more difficult to be established. This issues are never discussed in Zeijlstra (2004)

Although Tubau (2008) does not discuss embedded subjunctive clauses extensively in her analysis, she does discuss examples similar to the one in (4) above. Following Gallego's Phase Sliding (2005, 2007) (see section 2.4.3.1) she proposes the analysis illustrated in (11b) for the embedded subjunctive sentence in (11a).

> a. Dudo que nadie sepa la respuesta. pro doubt-1SG.PRSNT.IND that no one know-3SG.PRSNT.SUBJ the answer 'I doubt that anyone knows the answer'
> b. Dudo [ $\mathrm{Pol}^{0}{ }_{[\text {iPol:modal] }}$ [que $\mathrm{C}^{0}$ nadie ${ }_{\text {[uPol:neg] }]}$ sepa $\operatorname{Pol}^{0}{ }_{[i P o l: m o d a l] ~}$ [...the answer]]]

Tubau's (2008) analysis for (10) is the following. First, the subject n-word would raise to Spec, PolP so that the embedded n-word and the negative marker are in the same Spell-Out domain. This triggers Tubau's Obliteration rule (see chapters 2 and 4). Further, she assumes that the negative value of the n -word values the uninterpretable polarity feature of $\mathrm{C}^{0}$ as negative. At this point, Phase Theory will predict that all the material below the embedded C' should be sent to Transfer. This would leave the negative $\mathrm{C}^{0}$ and the subject n-word in different Spell-out domains and allow the n-word in the embedded clause to surface with overt negative morphology. Tubau follows Gallego (2004) in arguing that this does not happen because the C-T complex in subjunctive dependents is defective. This delays Transfer until the T feature of subjunctive $\mathrm{C}-\mathrm{T}$ is valued by the matrix $v^{*}$-T complex. As a consequence, the uninterpretable negative feature in $\mathrm{C}^{0}$ is now able to Agree with the negative feature of the verb doubt.

However, Tubau's (2008) analysis suffers from a problem similar to Zeijlstra's (2004). First, it is unclear why the negative feature in $\mathrm{C}^{0}$ enters an Agree relationship with the verb dudar. If the subject n -word has already valued the embedded $\mathrm{C}^{0}$ as negative, then it is unclear why the
verb deny needs to establish another agreement relationship with $\mathrm{C}^{0}$ if it has already been valued by the embedded n-word.

In addition, examples like the one in (3) remain unaccounted for in Tubau's analysis. The assumption that Transfer is postponed until the T feature of subjunctive $\mathrm{T}-\mathrm{C}$ is valued by the matrix $v^{*}-\mathrm{T}$ complex has a direct consequence: after this feature valuation takes place, the $v^{*}-\mathrm{T}$ complex will be sent to Spell-Out leaving the negative marker inside the matrix PolP and the embedded $n$ word in different Spell-Out domains. Thus, agreement between the negative marker in the matrix clause and the embedded n-word should never obtain.

Finally, Herburger (2001) and Tubau (2008) make interesting observations with regards to embedded clauses of the doubt-type. These types of clauses seem to be ambiguous between an NC and DN reading, as shown in the example in (12).
(12) Dudo que nadie sepa la respuesta.
doubt-1SG.PRSNT.IND that No one know-3SG.PRSNT.SUBJ the answer
NC: 'I doubt that anyone knows the answer'
DN: 'I doubt that no one knows the answer'

However, as we will see in section 5.5.2 below, most of the speakers of Northern Peninsular Spanish that participated in this experiment do not consider sentences like (12) to be ambiguous. In fact, the preferred reading for these types of sentences is the DN one. This along with the other facts presented above, suggest that the phenomenon of NC in embedded subjunctive clauses requires further investigation.

### 5.2.2.2 Infinitives

A similar phenomenon is observed in embedded infinitival clauses. Giannakidou (2000) observes that NC is allowed across infinitival clauses, see example (13).
(13) Juan no espera comprar nada en la tienda. Juan neg expect-3sg.prsnt buy-inf nothing at the store 'John doesn't expect to buy anything at the store'

The infinitive example above shows that it is possible for an n-word as the complement of an infinitive verb to establish an NC relation with the negative marker in the matrix clause. This is surprising because the matrix negative marker and the n-word are in different Spell-Out domains. However, Wurmbrand (1998) and Bobaljik \& Wurmbrand (2013) observe that infinitives show a higher degree of transparency than subjunctive clauses. They attribute this transparency to the lack of an embedded CP and TP layer, which straightforwardly explains why NC is available in these types of clauses.

### 5.2.2.3 Adjunct and Complex-NP clauses

In the literature on locality (Huang, 1982; Chomsky, 1995; Haegeman \& Guerón, 1999) there are several clauses that are subject to strong locality conditions, e.g., adjuncts, wh-islands and complex-NP clauses, among others. In this section I will focus on discussing adjunct and complex NP clauses. As a consequence, syntactic operations such as Move or Agree across adjunct and complex NP should not be possible. In this subsection, I provide examples from the literature on adjunct and complex NP clauses to show that syntactic operations like extraction out of these types of clauses is banned. Starting with adjunct clauses, it has been observed that if the adjunct clause contains an embedded CP , extraction from an element inside the CP to a position outside of the adjunct is not allowed (Sportiche et al., 2014), as shown in the Spanish example in (14).
(14) ${ }_{i}$ QQué ${ }_{i}$ durmió Javier mientras ellos lavaban $t_{i}$ ? what sleep-past Javier while they clean-past 'What did Javier sleep while they washed?

Example (14) demonstrates effects of locality in adjunct islands. In (14), we can see that the whword what occurs within the adjunct CP . Therefore, movement of the wh-word out of the adjunct leads to ungrammaticality.

Another type of constructions that do not allow extraction are complex-NP clauses. Consider the Spanish example in (15).

$$
\begin{align*}
& \text { *iQué }_{\text {i cree }} \text { Luis que [el rumor de que Pedro ha vendido } t_{i} \text { en su }  \tag{15}\\
& \text { what believe-PRSNT Luis that the rumor of that Pedro AUX-PRSNT sell in his } \\
& \text { tienda] es cierto? } \\
& \text { store be-PRSNT true } \\
& \text { 'What does Luis believe that the rumor that Pedro has sold at his store is true?' }
\end{align*}
$$

The ungrammaticality of the example in (15) stems from the fact that the wh-word qué 'who', is extracted from the embedded complex-NP to the main clause. This results in ungrammaticality since extraction of an element out of a complex-NP island is not allowed.

With this information in mind, we can predict that if syntactic operations, i.e., movement, out of these types of clauses is not allowed, neither should NC relationships between a negative marker and an n-word in adjunct or complex NP clauses, regardless of mood.

### 5.3 Predictions

Recall that the overall goal of this experiment is to determine whether the availability of NC in embedded clauses is conditioned by either syntactic locality or some semantic property of the subjunctive. So far, we have seen that NC seems to respect locality in finite indicative clauses, see (2). This points to a syntactic characterization of the phenomenon of NC. On the other hand, NC does not seem to be restricted by locality in embedded subjunctive clauses or infinitives. This complicates the picture: if NC is a syntactic phenomenon we should expect it to be subject to
locality conditions even in these types of clauses and regardless of their mood. The fact that this is not the case, has led a number of researchers (Ladusaw, 1979; van der Wouden \& Zwarts, 1993; Tonhauser, 2001; among others) to characterize NC as a semantic phenomenon. If these approaches are on the right track and the availability of NC is conditioned by some semantic property of the context, such as the subjunctive, then one should expect NC relationships to happen in adjuncts and complex-NP clauses as long as these clauses are in the subjunctive mood. However, in the paragraphs above I discussed the counter arguments as well as the analyses proposed by those advocators of NC as a syntactic phenomenon (Zeijlstra, 2004; Tubau, 2008). From these analyses we can extract the following prediction: if NC is a syntactic phenomenon and as such, subject to locality conditions, then we should expect that NC should not be licit across adjunct and complex NP clauses. Nonetheless, we still need to account for the fact that in embedded subjunctive clauses and infinitives NC do not seem to be restricted by locality.

### 5.4 Methods

### 5.4.1 Participants

The Spanish data shown below was collected from 40 speakers of Northern Peninsular Spanish— 23 females and 17 males- of an average age of 24.95 years. These were individuals who had acquired Spanish from birth and lived in surrounding areas of Bilbao. All participants completed a background questionnaire that was conducted during the experiment, and they all reported to never have lived abroad for more than two years. They also reported having basic knowledge of English, French or German and they all had at least college education. All participants were compensated for their participation in this study.

Given that these participants were born and raised in a community where Basque and Spanish coexist, each participant completed the BLP questionnaire (Birdsong et al., 2012) in order to determine their language dominance. This allowed me to divide the participants into two groups, Basque dominant ( $N=18$ ) and Spanish dominant ( $N=22$ ), depending on their BLP scores. As in the previous experiment, these scores were converted to a scale score with the Basque score subtracted from the Spanish score. More positive scores reflected Spanish dominance, while more negative ones reflected Basque dominance. The scores ranged from -52.58 (Basque dominant) to 144.39 (Spanish dominant). Figure 1 provides the distribution of Spanish- and Basque-dominant groups.

Figure 1. Language dominance as a function by group according to the BLP


### 5.4.2 Stimuli

The critical stimuli for this experiment consisted of 52 monolingual Spanish NC sentences, which were divided according to the factors outlined in (16) below:
a. Matrix sentences with preverbal and postverbal n-words
b. Embedded indicative sentences with preverbal and postverbal n-words.
c. Embedded subjunctive sentences to a negated epistemic verb with preverbal and postverbal n-words
d. Embedded subjunctive sentences to adversative verbs with preverbal and postverbal n-words.
e. Infinitival clauses with postverbal n-words.
f. Adjunct clauses in the indicative with postverbal n-words.
g. Adjunct clauses in the subjunctive with postverbal n-words.
h. Complex-NP clauses in the indicative with postverbal n-words.
i. Complex-NP clauses in the subjunctive with postverbal n-words.

The structures in (16a-d) contained eight lexicalizations: four lexicalizations with n -words in preverbal position in the embedded clause and the other four with n-words in postverbal position. In addition, each of the structures in (16e-i) contained only four lexicalizations with $n$-words in postverbal position. The reason for only including $n$-words in postverbal position in these types of clauses was to force a NC reading of these types of clauses.

All participants were presented with the 52 monolingual Spanish sentences as well as 90 distractors for the Acceptability Judgment Task. These distractors were part of a different experiment that examined wh-movement and subject inversion in Spanish. In addition, the 32 stimuli from (16a-d) were presented to the participants in the form of a Forced-Choice Interpretation Task in order to test for semantic interpretation (NC vs. DN, or both). These two tasks will be addressed in the subsection that follows. The critical stimuli for each of the factors in
(16) above is presented in Table 1. For the reader's convenience, the n-words are displayed in bold and the verbal mood of the embedded clause in italics.

Table 1. Sample critical stimuli

| Clause Type + Mood | Position nword | Sample stimuli |
| :---: | :---: | :---: |
| Matrix IND | Post-V <br> Pre-V | Pedro no vendió nada en su tienda <br> 'Peter didn't sell anything in his store' <br> Nadie vio el documental sobre elefantes <br> 'No one saw the documentary about elephants' |
| Embedded IND | Post-V Pre-V | Mi madre no dijo que Pedro había vendido nada en su tienda 'My mom didn't say that Peter had sold anything in his store' <br> Mi familia no dijo que nadie había visto el documental sobre elefantes <br> 'My family didn't say that no one had seen the documentary about elephants' |
| Embedded SUBJ (negated epistemics) | Post-V Pre-V | Mi madre no cree que Pedro vendiera nada en su tienda <br> 'My mom doesn't think/believe that Peter sold anything in his store' <br> Mi familia no cree que nadie haya visto el documental sobre elefantes <br> 'My family doesn't think/believe that no one has seen the documentary about elephants |
| Embedded SUBJ (adversatives) | Post-V Pre-V | Mi madre duda que Pedro vendiera nada en su tienda 'My mom doubts that Peter had sold anything in his store' <br> Mi familia duda que nadie viera el documental sobre elefantes <br> 'My family doubts that no one had seen the documentary about elephants' |
| Infinitives | Post-V | Pedro no pudo vender nada en su tienda <br> 'Peter couldn't sell anything in his store' |
| Adjunct IND | Post-V | Mi familia no vio la televisión mientras "La 2" emitía ningún documental sobre elefantes <br> 'My family didn't watch TV while "Channel 2" was broadcasting any documentary about elephants' |


| Clause Type + Mood | Position n- <br> word | Sample stimuli |
| :--- | :--- | :--- |
| Adjunct SUBJ | Post-V | Mi familia no vio la televisión mientras "La 2" emitiera <br> ningún documental sobre elefantes |
| 'My family didn't watch TV while "Channel 2" broadcasted |  |  |
| any documentary about elephants' |  |  |

### 5.4.3 Procedure

The entire experiment was distributed to the participants in an online survey format using Qualtrics. Given the length of the experiment, participants completed the experiment in person in order to maximize completion rates. The survey was divided in four consecutive blocks and all participants completed each block in the same order. First, participants filled out the Bilingual Language Profile questionnaire. Then participants were given detailed instructions on how to perform the Acceptability Judgment Task, followed by 5 practice sentences (see Appendix D). As in the experiments in chapters 3 and 4 they were instructed to rate each stimulus using a 1 to 7 Likert scale, 7 being the most acceptable. After completing the practice block, participants were presented with the Acceptability Judgment Task, including the entire set of stimuli as well as the distractors, which were pseudorandomized. The stimuli were presented to the participants in blocks of ten on the computer screen, in order to minimize the effects of fatigue in their judgments.

After completing the Acceptability Judgment Task, participants were given a ten-minute break before they moved on to the Forced-Choice Interpretation Task. This task included 32
sentences of the original stimuli designed according to the factors in (16a-d). The goal of this task was to determine the semantic interpretation that participants attributed to each sentence depending on the type of clause and the position of the n-word in the embedded clause. In this task participants were presented with a sentence and they were provided with two different contexts, each corresponding to a NC and a DN interpretation of the sentence respectively. Next, they were asked to determine which of these contexts provided a more logical continuation to target sentence that they had just seen. In addition, participants were provided with a third option in case they determined that both contexts provided a logical continuation to the target sentence. The order of these three options was randomized for each target sentence. A sample trial of the Forced-choice Interpretation Task is provided in (17) below.
(17) Elige el contexto que continúe la oración de la manera más lógica. En algunos casos es posible que te parezca que ambos contextos proporcionan una continuación lógica a la oración. En ese caso, selecciona la casilla "ambos contextos son posibles".
'Choose the context that continues the sentence in the most logical manner. In some cases, it is possible that you determine that both contexts provide a logical continuation to the sentence. In that case, select the option "both contexts are possible""

Stimulus: Mi madre no cree que Pedro venidiera nada en su tienda...
'My mom doesn't think/believe that Peter sold anything in his store'
Contexts: a)...y por eso cree que Pedro necesitará ayuda para mejorar sus ventas. '.. and that is why she believes that Peter will need help to improve his sales’
b)...y por eso cree que el negocio de Pedro prosperará rápidamente. '...and that is why she believes that Peter's business will rapidly prosper'
c) Ambos contextos son posibles.
'Both contexts are possible'

On average, participants completed the entire procedure between an hour and an hour and a half.
Figure 2 illustrates the procedure that will be followed in this experiment.

Figure 2. Experimental procedure


### 5.4.4 Analysis

For the Acceptability Judgment Task, The data were fit to a Linear Mixed Model in order to determine the effect of Group on the Ratings of the different Types of structures. The dependent variable was Rating (1-7 Likert scale) and the independent variable was Type of structure, which included all the structures in (16 a-i). Group $(1=$ Basque dominant, $2=$ Spanish dominant $)$ was introduced as a covariate. Descriptive statistics were also conducted reporting the average acceptability rating, standard deviation and $95 \%$ Confidence Intervals for each of the structures in Table 1 above.

For the Forced-choice Interpretation Task, a Multinomial Logistic Regression was conducted with the participants' interpretation of each sentence as a ternary dependent variable (1 $=\mathrm{NC}, 2=\mathrm{DN}, 3=\mathrm{BOTH}^{22}$ ); and Type of structure, which included all the structures in $(16 \mathrm{~b}-\mathrm{d})$ above, as the independent variable. Matrix sentences with postverbal and preverbal n-words were excluded from the statistical analysis because these sentences were unanimously interpreted as having a NC reading by all of the participants. Group $(1=$ Basque dominant, $2=$ Spanish dominant $)$ was computed as a covariate. The alpha level was set at .05 .

[^22]
### 5.5 Results

### 5.5.1 Results for the Acceptability Judgment Task

The results for the Linear Mixed Model carried out for this task show that Group does not have an effect on the ratings for each type of structure $(F(10,396.000)=.660, p=.762)$. In other words, language dominance does not have an effect on participants' ratings of each type of structure. Additionally, significant main effects are found for Type $(F(10,396.000)=14.653, p=$ .000), which shows that participants are behaving differently depending on the type of structure.

The descriptive statistics for each of the structures in Table 1 are reported in Table 2 below. Given that the acceptability ratings for embedded clauses to negated epistemic and adversative verbs are very similar, these two structures have been collapsed in Table 2 for ease of exposure. Recall that the goal of this task is to determine whether the availability of NC is conditioned by syntactic locality or some semantic property of the subjunctive.

Table 2. Results for monolingual Spanish structures by mood and position of n-word

| $\mathbf{N}$ | Clause Type, Mood, position of n-word | M | SD | 95\% CI |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1 8}$ | Matrix, Post-V | 6.82 | 0.75 | $[6.59,7.00]$ |
|  | Matrix, Pre-V | 6.79 | 0.88 | $[6.52,7.00]$ |
|  | Embedded, IND, Post-V | 1.58 | 0.63 | $[1.38,1.77]$ |
| $\mathbf{2 1}$ | Embedded, IND, Pre-V | 5.03 | 1.98 | $[4.41,5.64]$ |
| ${ } }$ | Embedded, SUBJ, Post-V | 6.22 | 0.92 | $[5.93,6.51]$ |
| $\mathbf{2 3}$ | Embedded, SUBJ, Pre-V | 6.28 | 0.92 | $[5.99,6.58]$ |
| $\mathbf{2 4}$ | Infinitives, Post-V | 1.84 | 0.62 | $[6.64,7.00]$ |
| $\mathbf{2 5}$ | Adjunct, IND, Post-V | 0.64 | $[1.04,1.45]$ |  |
| $\mathbf{2 6}$ | Adjunct, SUBJ, Post-V | 1.93 | 1.63 | $[1.40,2.45]$ |
| $\mathbf{2 7}$ | Complex-NP, IND, Post-V | 1.49 | 0.79 | $[1.24,1.74]$ |
| $\mathbf{2 8}$ | Complex-NP, SUBJ, Post-V | 1.80 | 0.81 | $[1.54,2.06]$ |

As expected, the results from Table 2 show that the matrix sentences in (18)-(19) are highly acceptable regardless of the position of the n-word. However, there is an asymmetry between the acceptability ratings of embedded indicative clauses with postverbal (20) and preverbal n-words (21). While the formers are consistently rejected by participants, the latter are much more acceptable.

With regards to the embedded subjunctive clauses to negated epistemic and adversative verbs in (22)-(23), participants consistently accept these types of clauses regardless of the position of the n-word in the embedded clause. The same is observed for infinitive clauses containing postverbal n-words in (24). This supports Bobaljik \& Wurmbrand's (2013) observation that infinitive clauses follow a pattern similar to that of embedded subjunctive clauses.

Given the results in (22)-(23), one could hastily conclude that some semantic property of the subjunctive allows for NC relationships to be established across clauses. However, the acceptability judgments of clauses containing n-words inside of adjuncts (25)-(26) and complexNP clauses (27)-(28) show otherwise. These types of clauses are unanimously rejected by participants, regardless of the mood of the embedded clause. It is true, however, that the ratings of these clauses are slightly higher when the embedded verb is conjugated in the subjunctive, nonetheless, these are still very far from reaching acceptability. From these results, we can safely conclude that the availability of NC is not conditioned by some semantic property of the subjunctive.

The results in Table 2, though informative, do not allow me to conclude that NC is a syntactic phenomenon. Notice that the sentences in (21)-(23), where the n-word is inside of the embedded clause in the context of matrix negation, are still highly acceptable. This is surprising because if we assume that NC is syntactic, it should not be allowed in these types of clauses
regardless of their mood. Nonetheless, cases like (21)-(23) could still be explained in terms of transparency, following Zeijlstra (2004), Gallego (2007), Gallego \& Uriagereka (2011) and Bobaljik \& Wurmbrand's (2016) observations: embedded subjunctive clauses, unlike indicative ones, establish a syntactic dependency with the matrix clause, which allows for NC relationships to happen across domains. If this is the case, we should expect to find differences in the interpretation of sentences like (21) and (23). The dependency between embedded and matrix clause in (23) should allow NC relationships to happen across domains and this should trigger NC readings for these types of clauses. On the contrary, if embedded indicative clauses like (21) constitute a solid phasal domain, NC relationships between the matrix negation and the embedded n-word should never be established. As a result, the matrix negation and the pre-verbal n-word should each be interpreted as negative in their own clausal domain. These two negatives would trigger a DN reading of the sentence at LF. Thus, the interpretation of the sentences in (21)-(23) is crucial to determine the transparency of embedded subjunctive clauses compared to indicative ones.

The results from the Acceptability Judgment Task taken together with those of the Forcedchoice Interpretation Task reported bellow, will shed light on the syntactic nature of the phenomenon of NC.

### 5.5.2 Results for the Forced-Choice Interpretation Task

Table 3 below reports the results for the Multinomial Logistic Regression. The dependent variable is coded as a ternary variable including the three possible interpretations (NC, DN, BOTH). The independent variable includes the type of sentence, mood and position of $n$-word,
described in the factors in (16b-d) above. The variable Group (Basque dominant, Spanish dominant) was coded as a covariate.

Table 3. Results for the Multinomial Logistic Regression for Interpretation*Clause-type*Group

| Interpretation ${ }^{\text {a }}$ |  | B | S.E. | Wald | df | Sig. | $\operatorname{Exp}(\mathrm{B})$ | 95\% Confidence Interval for $\operatorname{Exp}(\mathrm{B})$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Lower <br> Bound |  |  |  |  |  | Upper <br> Bound |
| NC | Group |  | 3.380 | . 199 | 2.899 | 1 | . 089 | . 713 | . 483 | 1.052 |
|  | Embedded, IND, Post-V | -3.220 | . 172 | 3.477 | 1 | . 062 | . 725 | . 517 | 1.017 |
|  | Embedded, IND, Pre-V | -. 917 | . 354 | 6.709 | 1 | . 010 | . 400 | . 200 | . 800 |
|  | Embedded, SUBJ, Post-V (negated epistemics) | 2.667 | . 358 | 55.504 | 1 | . 000 | 14.393 | 7.136 | 29.030 |
|  | Embedded, SUBJ, Pre-V (negated epistemics) | 3.140 | . 385 | 66.566 | 1 | . 000 | 23.110 | 10.869 | 49.138 |
|  | Embedded, SUBJ, Post-V (adversatives) | 2.476 | . 351 | 49.833 | 1 | . 000 | 11.895 | 5.981 | 23.654 |
|  | Embedded, SUBJ, Pre-V <br> (adversatives) | -. 963 | . 181 | 28.176 | 1 | . 000 | . 382 | . 268 | . 545 |
| BOTH | Group | . 035 | . 264 | . 017 | 1 | . 896 | 1.035 | . 617 | 1.735 |
|  | Embedded, IND, Post-V | -1.346 | . 487 | 7.637 | 1 | . 006 | . 260 | . 100 | . 676 |
|  | Embedded, IND, Pre-V | -1.549 | . 467 | 11.025 | 1 | . 001 | . 212 | . 085 | . 530 |
|  | Embedded, SUBJ, Post-V (negated epistemics) | -1.667 | . 659 | 6.392 | 1 | . 011 | . 189 | . 052 | . 687 |
|  | Embedded, SUBJ, Pre-V (negated epistemics) | -2.198 | . 869 | 6.392 | 1 | . 011 | . 111 | . 020 | . 610 |
|  | Embedded, SUBJ, Post-V (adversatives) | -. 992 | . 565 | 3.078 | 1 | . 079 | . 371 | . 123 | 1.123 |
|  | Embedded, SUBJ, Pre-V (adversatives) | -2.676 | . 557 | 23.072 | 1 | . 000 | . 069 | . 023 | . 205 |

a. The reference category is: DN.

The statistical results show that the covariate variable Group is not a significant predictor of the differences in interpretation, NC versus $\mathrm{DN}($ Wald $=2.899, d f=1, p=.089)$ and BOTH versus

DN $($ Wald $=.017, d f=1, p=.896)$, by clause-type. Just like in the Acceptability Judgment Task, in the Forced-choice Interpretation Task language dominance does not have an effect on participant's interpretation of the target sentences. Therefore, the data have been collapsed across Group.

In addition, the statistical results from the Multinomial Logistic Regression also show that there are significant differences between each of the interpretations (NC vs. DN, BOTH vs. DN) for almost all of the clause-types. The only non-significant differences are observed between the NC and DN interpretation for embedded indicative sentences with postverbal $n$-words (Wald $=-$ 3.220, $d f=1, p=.062$ ); and between DN and BOTH (Wald $=-.992, d f=1, p=.079$ ) for embedded subjunctive sentences to adversative predicates with postverbal n-words.

Figure 3 below reports the average interpretation results for the Forced-choice Interpretation Task by clause-type. Since most of the effects between interpretations for each clause-type were significant, only non-significant effects (n.s.) are reported in Figure 3. The percentages for each interpretation are represented along the vertical axis. The horizontal axis reports the position of the n-word, clause-type and mood. Finally, the NC, DN readings and BOTH (readings are possible), are reported in the green, blue and purple bars respectively.

Figure 3. Average interpretation results for the Forced-choice Interpretation Task by clause-type


The results in Figure 3 show that, in general, participants were very categorical regarding the interpretation that they assigned to each sentence type. Participants mostly preferred either NC readings or DN ones. Those cases in which the target sentence was interpreted as being ambiguous, i.e., BOTH , were relatively infrequent.

Regarding matrix sentences such as the ones in (29)-(30) below, participants unanimously assigned NC readings to these types of clauses regardless of the position of the $n$-word. This result is line with what has been reported in the literature on NC for matrix clauses.
(29) Pedro no vendió nada en su tienda Peter neg sell-3sG.PASt nothing at his store
'Peter didn't sell anything at his store'
(30) Nadie vio el documental sobre elefantes no one see-3sg.past the documentary about elephants
'No one saw the documentary about elephants'

On the other hand, embedded indicative sentences with postverbal n-words in (31) show much more variation regarding their interpretation. Recall that in the Acceptability Judgment Task these sentences were judged as highly unacceptable. Therefore, it is possible that participants have more difficulties interpreting these sentences. This would straightforwardly explain the variability found in the readings for these types of sentences.

> *Mi madre no dijo que Pedro había vendido nada en su tienda My mother neg say-3SG.PAST.InD that Peter AUX-3SG.PAST.IND sold 'My mother didn't say that Peter had sold anything at his store'

An interesting result is the one found for embedded indicative clauses with preverbal n-words, see (32). These sentences are interpreted as having a DN reading $72 \%$ of the time. The percentage of DN readings compared to NC ones for this clause type is found to be statistically significant (Wald $=-9.17, d f=1, p=.010)$. In other words, for these types of clauses DN readings are more likely to obtain than NC ones.
(32) Mi familia no dijo que nadie había visto el documental sobre My family neg say-3Sg.Past.ind that no one aux-3SG.PAST.IND seen the documentary about elefantes elephants
*NC: 'It is not the case that my family said that someone had seen the documentary about elephants'
DN: 'It is not the case that my family said that no one had seen the documentary about elephants'

Embedded subjunctive clauses to negated epistemic verbs were interpreted as having a NC reading regardless of the position of the n-word, see (33)-(34). The percentages of NC readings compared to DN ones are statistically significant for both, embedded clauses with postverbal n-words (Wald $=2.667, d f=1, p=.000)$ and preverbal n-words $($ Wald $=3.140, d f=1, p=.000)$. This means
that in embedded subjunctive clauses NC readings are more likely to obtain than DN ones regardless of the position of the $n$-word.

Mi madre no cree que Pedro vendiera nada en su tienda My mother neg believe-3SG.PRSNT.Ind that Peter sell-3SG.PaSt.SUbj nothing at his store NC: 'It is not the case that my mother believes that Peter sold something at his store' *DN: 'It is not the case that my mother believes that Peter sold nothing at his store'

Mi familia no cree que nadie haya visto el documental
My family neg believe-3SG.PRSNT.IND that No one aux-3SG.PRSNT.SUBJ seen the documentary sobre elefantes
about elephants
NC: 'It is not the case that my family believes that someone has seen the documentary about elephants'
*DN: 'It is not the case that my family believes that no one has seen the documentary about elephants'

Finally, embedded subjunctive clauses to adversative verbs show an asymmetry in their interpretation depending on the position of the $n$-word inside the embedded clause. Compare (35) and (36).
(35) Mi madre duda/niega que Pedro vendiera nada en su tienda My mother doubt/deny-3SG.PRSNT.Ind that Peter sell-3SG.PASt.SUbj nothing at his store NC: 'It is not the case that my mother doubts/denies that Peter sold something at his store' *DN: 'It is not the case that my mother doubts/denies that Peter sold nothing at his store'
(36) Mi familia duda/niega que nadie viera el documental sobre My family doubt/deny-3SG.PRSNT.IND that no one see-3SG.PASt.SUbJ the documentary about elefantes
elephants
*NC: 'It is not the case that my family doubts/denies that someone has seen the documentary about elephants'
DN: 'It is not the case that my family doubts/denies that no one has seen the documentary about elephants'

When the n-word is postverbal NC readings are more likely to obtain than DN ones (Wald $=2.476$, $d f=1, p=.000$ ), as shown in (35). On the other hand, when the n -word is preverbal, the opposite pattern is observed: participants interpreted these sentences as having a DN reading $68.12 \%$ of the
time. In other words, when the n-word is preverbal in these types of clauses DN readings are more likely to obtain than NC ones $($ Wald $=-9.63, d f=1, p=.000)$, see (36).

### 5.6 Discussion

The results from the Acceptability Judgment Task taken together with those of the Forcedchoice Interpretation Task allow me to shed light on the syntactic nature of the phenomenon of NC in Spanish.

First, the results from the Acceptability Judgment Task show that NC relationships are not possible across adjunct clauses such as (37)-(38) and complex-NP clauses such as (39)-(40) regardless of their mood. Recall that participants regarded this sentences as highly unacceptable. These results point to a syntactic characterization of the phenomenon of NC in term of syntactic locality. In the case of adjuncts and complex-NP clauses the explanation is straightforward: NC relationships cannot be established across these types of clauses because they are immune to agreement. In other words, in adjuncts and complex-NP clauses the n-word is too deeply embedded inside the clause to be "seen" by matrix negation.
*Mi familia no vio la televisión mientras "La 2" emitía My family neg see-3SG.PASt.IND the television while channel 2 broadcast-3SG.PAST.IND ningún documental sobre elefantes
any documentary about elephants
'My family didn't watch TV while "Channel 2 " was broadcasting any documentary about elephants'
*Mi familia no vio la televisión mientras "La 2" emitiera
My family nEG see-3SG.PAST.IND the television while channel 2 broadcast-3SG.PAST.SUBJ ningún documental sobre elefantes
any documentary about elephants
'My family didn't watch TV while "Channel 2" broadcasted any documentary about elephants’
*Mi madre no cree que el rumor de que Pedro ha My mother neg believe-3Sg.PRSNT.Ind that the rumor of that Pedro aux-3Sg.PRSNT.IND vendido nada en su tienda sea cierto
sold nothing at his store be-3SG.PRSNT.SUbj true
'My mother doesn't believe that the rumor that Peter has sold anything at the store is true’

```
*Mi madre no cree que el rumor de que Pedro haya
    My mother neg believe-3SG.PRSNT.IND that the rumor of that Pedro aux-3SG.PRSNT.SUBJ
vendido nada en su tienda sea cierto
sold nothing at his store be-3SG.PRSNT.SUBJ true
'My mother doesn't believe that the rumor that Peter had sold anything at the store is
true'
```

NC relationship in embedded indicative clauses with postverbal n-words are also infelicitous because the matrix negation and the n-word are not in the same syntactic domain. Evidence in support of this claim comes from the low acceptability ratings of these clauses in the Acceptability Judgment Task. The relevant example is given in (31) and repeated below in (41).
*Mi madre no dijo que Pedro había vendido nada en su tienda My mother neg say-3SG.Past.ind that Peter aux-3sG.Past.ind sold nothing at his store 'My mother didn't say that Peter had sold anything at his store'

Further evidence on the locality of NC relationships comes from the interpretation of embedded indicative clauses with preverbal n-words, see (42). While these clauses were judged as acceptable in the Acceptability Judgment Task, they were interpreted as having a DN reading in the Forcedchoice Interpretation Task. This finding corroborates Zeijlstra (2004), Gallego (2007), Gallego \& Uriagereka (2011) and Bobaljik \& Wurmbrand's (2016) observation: embedded indicative clauses are opaque and do not allow NC relationships to be established. As a result, the matrix negation and the embedded n-word each yield one negative interpretation in their own syntactic domain. This explains the DN readings that we find for these types of sentences.

Mi familia no dijo que nadie había visto el documental sobre My family neg say-3sg.Past.Ind that no one aux-3SG.PAST.IND seen the documentary about elefantes
elephants
*NC: 'It is not the case that my family said that someone had seen the documentary about elephants'
DN: 'It is not the case that my family said that no one had seen the documentary about elephants'

On the other hand, embedded subjunctive clauses to epistemic verbs are highly acceptable regardless of the position of the n -word and are interpreted as having NC readings. The relevant examples are repeated in (43)-(44) for the reader's convenience.
(43) Mi madre no cree que Pedro vendiera nada en su tienda My mother neg believe-3Sg.PRSnt.Ind that Peter sell-3SG.Past.subj nothing at his store NC: 'It is not the case that my mother believes that Peter sold something at his store'
(44) Mi familia no cree que nadie haya visto el documental

My family neg believe-3SG.PRSNT.IND that no one aux-3SG.PRSNT.SUBJ seen the documentary sobre elefantes
about elephants
NC : 'It is not the case that my family believes that someone has seen the documentary about elephants'
*DN: 'It is not the case that my family believes that no one has seen the documentary about elephants'

Notice that like in embedded indicative clauses, in (43)-(44) the matrix negation and the n-word are still in two different syntactic domains. This finding is surprising because if NC were a syntactic phenomenon, we should expect it to be subject to locality condition in these types of clauses as well. The fact that this is not the case could be attributed to a semantic property of the subjunctive that is able to license embedded n-words. Nonetheless, this does not explain why the subjunctive cannot license n-words in adjunct and complex-NP clauses. Given this evidence we can conclude the semantic properties of the subjunctive alone are not enough to license n -words across clauses. However, the asymmetry observed in the behavior of NC between embedded
indicative and embedded subjunctive clauses still remains unexplained. Bobaljik \& Wurmbrand (2013) offer a possible solution to account for the transparency of embedded subjunctive regarding syntactic operations such as NC. They argue that the dependency established between the main verb and the subjunctive complement extends the locality domain of the embedded clause to the matrix clause. This explains why NC relationships are possible across embedded subjunctive clauses.

Finally, the asymmetry observed in the interpretation of embedded subjunctive clauses to adversative verbs with postverbal, e.g., (45), and preverbal n-words, e.g., (46) is intriguing.

Mi madre duda/niega que Pedro vendiera nada en su tienda My mother doubt/deny-3SG.PRSNT.Ind that Peter sell-3SG.PAST.SUBJ nothing at his store NC: 'It is not the case that my mother doubts/denies that Peter sold something at his store' *DN: 'It is not the case that my mother doubts/denies that Peter sold nothing at his store'
(46) Mi familia duda/niega que nadie viera el documental sobre

My family doubt/deny-3SG.PRSNT.IND that no one see-3SG.PASt.SUbj the documentary about elefantes elephants
*NC: 'It is not the case that my family doubts/denies that someone has seen the documentary about elephants'
DN : 'It is not the case that my family doubts/denies that no one has seen the documentary about elephants’

The NC readings obtained when the n-word is postverbal in these types of clauses can be attributed to transparency effects along the lines of Bobaljik \& Wurmbrand (2013). However, the DN readings obtained when the n-word is preverbal seem to contradict the transparency effects reported for these clauses. Notice that if these clauses were transparent, nothing should prevent the embedded n -word from establishing a NC relationship with the inherent negation of verbs like negar 'to deny' or dudar 'to doubt'. I will leave this issue aside in this discussion but I will suggest
that the reason why these types of clauses are interpreted as DN is due to their inability to license Neg-raising. This issue will be revisited in the analysis in chapter 6.

Finally, based on the Spanish data gathered from adjunct clauses with negative elements, I have concluded that $n$-words inside these clauses cannot be licensed by matrix negation. Nonetheless, as pointed out by Uribe-Etxebarria (p.c.), in some cases it is possible for n-words inside of adjuncts to be licensed by matrix negation. These are cases in which the adjunct is preceded by the conjunctions porque 'because' and para que 'so that', as shown in (47) and (48).
(47) No le llevaron a la cárcel porque hubiera robado nada, *(sino porque había sido corruptor de menores)
'They did not take him to jail because he had stolen anything, but because he had been a corruptor of minors'
(48) No le ofrecieron el dinero para que matara a nadie, *(sino para que comprara drogas en el mercado negro)
'They did not offer him the money to kill anyone, but to buy drugs on the back market'

Notice that these sentences are only licit as long as they are followed by the adversative conjunction sino 'but not', as signaled by the asterisk outside the parenthesis. To put it differently, these sentences are only acceptable when the negated proposition is contrastive with an affirmative proposition. The behavior of these clauses with respect to negation is very intriguing and I do not have a permanent solution to account for these cases. However, one possibility that I would like to suggest is that sentences like (47) and (48) do not constitute instances of sentential negation but rather, contrastive negation (see McCawley, 1991). This assumption is supported by the fact that in the sentences in (47)-(48) negation can also appear preceding the conjunction, compare (47) and (48) to (49) and (50).
(49) Le llevaron a la cárcel NO porque hubiera robado nada, *(sino porque había sido corruptor de menores)
'They did not take him to jail because he had stolen anything, but because he had been a corruptor of minors'
(50) Le ofrecieron el dinero NO para que matara a nadie, *(sino para que comprara drogas en el mercado negro)
'They did not offer him the money to kill anyone, but to buy drugs on the back market'

In a way, this contrastive negation functions as a particle that is inserted lower in the syntactic structure. Thus, I suggest that the conjunctions porque and para que in the sentences in (47)-(50) are complex heads formed out of the combination of the complementizer que 'that' and the prepositions por 'for' and para 'to'. In other words, these conjunctions are prepositions that take an embedded CP as their argument. This allows for contrastive negation to be inserted in Spec, PP and license the n-word inside the embedded CP from this position. This illustrated in the syntactic representation in (51).


At this point it is still unclear what mechanism allows contrastive negation to raise to a higher position in sentences such as (47) and (48). However, the fact that there is no difference in the interpretation between the sentences in (47)-(48) and those in (49)-(50) leads me to suggest that the relevant mechanism might be Neg-raising (see section 2.1.2). Nonetheless, this is only a possible solution and these sentences require further investigation.

### 5.7 Conclusion

In conclusion, the Spanish data from the Acceptability Judgment Task taken together with that of the Forced-choice Interpretation Task provide empirical evidence that NC is a syntactic phenomenon and as such, subject to locality conditions. This follows from the unacceptability of embedded indicative clauses with postverbal n-words as well as adjunct/complex-NP clauses in both, the indicative and subjunctive mood. Additionally, the data discussed above confirms the received opinion that embedded subjunctive and infinitive clauses show transparency with regards to the phenomenon of NC. Finally, I have argued that the asymmetry between embedded indicative and embedded subjunctive clauses can be accounted for in syntactic terms following Bobaljik \& Wurmbrand (2013): subjunctive complements involve a dependency between the lexical value of the matrix verb and the unvalued feature of the potential phase head. This suspends the phasehood of the complement until this feature dependency is satisfied. I argue that this dependency explains why NC is allowed across these clauses. This assumption will be at the core of the Minimalist syntactic analysis of the phenomenon of NC that I will provide in the next chapter.

## A MINIMALIST ANALYSIS OF NC IN NORTHERN PENINSULAR SPANISH

The three experiments in this dissertation have been designed to better understand the phenomenon of NC in Northern Peninsular Spanish. So far, the conclusions from the previous experiments are the following. First, Spanish n-words are better characterized as indefinites that are negation dependent. In other words, the feature composition of Spanish n-words is uPol[ ], i.e., an uninterpretable unvalued polarity feature. This feature needs to be valued as negative by the interpretable polarity feature $\mathrm{iPol}[\mathrm{neg}]$ of the negative marker.

Second, the apparent negativity of preverbal n-words comes from a iPol[neg] feature in the Neg-head. At the PF component, the phonological realization of iPol[neg] as the Spanish negative marker /no/ is deleted through the Obliteration rule presented in chapter 4. This explains why nwords are interpreted as negative in preverbal position even when they are not inherently negative.

Third, we have observed that the phenomenon of NC seems to be subject to locality conditions in embedded indicative clauses but not in embedded subjunctive clauses and infinitives. Further, I have presented previous attempts (Zeijlstra, 2004; Tubau, 2008) at providing an analysis of NC in embedded subjunctive clauses and discussed the problems that these approaches face. Finally, the Spanish data discussed in the previous chapter provide empirical evidence that NC is a syntactic phenomenon and as such, subject to locality conditions.

With all this information in mind, the goal of this last chapter is to provide a Minimalist analysis of NC in Northern Peninsular Spanish. Before moving further, I will first revisit the syntactic assumptions that will be central to my analysis.

### 6.1 Syntactic Assumptions

In my analysis, I will adopt the basic tenets of the Minimalist Program and its two main syntactic operations, namely, Merge and Agree. The operation Move in this analysis will be seen as an instance of Copy + Merge (see section 2.4.1, p.50). I will also assume that NC is a type of syntactic agreement ${ }^{23}$. This type of agreement is based on Pesetsky and Torrego's $(2004,2007)$ feature-sharing version of Agree and the directionality introduced in Baker's (2013). The Distributed Morphology framework outlined in section 2.5, and in particular the operation of Obliteration introduced in chapter 4 will also be of relevance.

I will also adopt Chomsky's Phase Theory as well as the PIC (see section 2.4.3). As discussed in chapter 2, Bobaljik \& Wurmbrand (2013) consider some linguistic evidence regarding the behavior of embedded subjunctive clauses, which can receive a principled explanation if we entertain the idea that merging a verb that selects for subjunctive with its complement involves a featural dependency that spans the domain boundary, suspending phasehood of the complement. Domain Suspension, as this phenomenon has been called, is in line with the PIC in Chomsky (2000, 2001). In the analysis proposed in the following subsections I assume that Domain Suspension in embedded subjunctives is triggered by an interpretable unvalued mood feature in $C^{0}$, i.e., iMood[ ]. I further assume that this feature can be checked as subjunctive by either the lexical value of the matrix verb in the case of adversative predicates; or by matrix negation in the case of negated epistemics.

[^23]In addition, I also adopt the notion of Neg-raising introduced in chapter 2 (Collins \& Postal, 2014), where the sentential negative marker raises from the embedded to the matrix clause in some verbal predicates, i.e., want, wish, think or believe, without affecting the interpretation of the sentence. In the syntactic analysis of NC presented below, I show how Neg-raising can account for the differences in interpretation between embedded subjunctive clauses to negated epistemic verbs and embedded subjunctive clauses to adversative verbs. I also assume that Neg-raising is only available in those cases in which the embedded C undergoes Domain Suspension, e.g., subjunctive dependents. In other words, Neg-raising is only allowed when the embedded C does not constitute a solid phasal domain. On the other hand, in those cases where the embedded C constitutes a solid phasal domain, e.g., embedded indicatives, Neg-raising is disallowed.

I also assume that Spanish verbs like dudar or negar in embedded clauses are complex forms created from a iPol[neg] feature attached to a root that takes a CP as its complement, as shown in (1). For the sake of exposition, in the syntactic representations that follow, adversative verbs will be represented along with the feature $\mathrm{iPol}[\mathrm{neg}]$.


Regarding the characterization of $n$-words, in this analysis, $n$-words will be treated as indefinites that are negation dependent. As previously stated in the introductory paragraphs of this chapter, the feature composition that I attribute to negative markers is iPol[neg], while that of n-words is uPol[ ]. Further, negative markers are the head of the functional projection PolP, which is located above TP in Spanish. Before Spell-Out, the unvalued feature of the n-word needs to be valued by
the iPol[neg] feature of the negative marker or that of another n-word in preverbal position. Once valuation takes place, only the $\mathrm{iPol}[\mathrm{neg}]$ feature will be interpreted at LF. In addition, I take that preverbal n-words are in Spec, PolP at LF (Giannakidou \& Quer 1997) or at least they have a copy in that position.

Finally, I will assume that internal arguments, e.g., syntactic objects, inside finite $v \mathrm{Ps}$ are accessible to the rest of the derivation by virtue of $v$ sharing features with T as in Embick (2010); or due to Phase Sliding as in Gallego (2005, 2007), where syntactic objects are assumed to move to the outer layer of the $v^{*} \mathrm{P}$ shell to receive case. With these assumptions in place, let us now move to the syntactic analysis of NC starting with n-words in preverbal position.

### 6.2 An Analysis of Preverbal N-words

The analysis of preverbal n-words presented here follows from the proposal in chapter 4. The example in (2) presents a sentence with an n-word in subject position. The corresponding syntactic derivation for the sentence in (2) is shown in (3).
(2) Nadie compró pan NO ONE buy-3SG.PAST bread
'No one bought bread'


The derivation of the sentence in (2) procees as follows. First, the subject n-word will be based generated in Spec, $v^{*} \mathrm{P}$. After all feature valuations between $v^{*}$, and $\mathrm{T}^{\prime}$, are satisfied, $v^{*}$, is sent to Transfer. Then, the subject n-word then raises to Spec, $\mathrm{TP}^{24}$. Consequently, the PolP projection is merged on top of TP. The subject n-word will then raise to the newly created Spec, PolP ${ }^{25}$. In this position the $\mathrm{uPol}[$ ] feature of the n -word will be valued by the $\mathrm{iPol}[\mathrm{neg}]$ feature in the head of PolP. After the remaining structure is sent to Spell-out, the LF component will interpret the iPol[neg] feature and the sentence will yield a negative interpretation. At the PF component, the phonological realization of $\mathrm{iPol}[\mathrm{neg}]$ as the Spanish negative marker /no/ will be deleted through the Obliteration rule presented in chapter 4. This rule is repeated in (4) for convenience.

[^24]```
        /no/ }->\mathrm{ Ø / iPol[neg]
```

$\qquad$

This analysis accounts for the fact that n-words are interpreted as negative in preverbal position even though they do not carry any negative import of their own.

### 6.3 An Analysis of Postverbal N-words

In this section I present my analysis for postverbal n-words, starting with the sentence in (5), with an overt negative marker and an n-word in postverbal position. The derivation for this sentence is given in (6) below.
(5) Juan no compró nada

Juan neg buy-3SG.PASt nothing
'John didn't buy anything'
(6)


In (6) the object n-word is merged along with the verb inside VP. As discussed in section 6.1, I will follow Gallego $(2005,2007)$ in assuming that objects and postverbal subjects raise to the outer Spec, $v^{*} \mathrm{P}$ to receive case by virtue of $v^{*}$ sharing features T. After v-to-T, the subject will raise to Spec, TP and the PolP projection is merged on top of TP with the iPol[neg] feature in its head. At this point the uPol[ ] feature of the postverbal n-word will be valued as negative by the polarity feature in the head of PolP. Notice that in this case the Obliteration rule in (4) will not be triggered because the $n$-word and the negative marker are not adjacent. The derivation in (6) does not violate the PIC because the object n-word has moved to Spec, $v^{*} \mathrm{P}$ before VP is sent to Transfer. Thus, the n-word remains accessible to the negative marker and this allows for the establishment of an Agree relation between these two elements.

### 6.4 An Analysis of Embedded Indicative Clauses

As discussed in chapter 5, embedded indicative clauses impose restrictions on the locality of NC. This is observed in sentence (2) from chapter 5, repeated here in (7) for convenience.
(7) Javier no dijo [cР que nadie había lavado la ropa]

Javier neg say-3sg.past.ind that no one had washed the clothes
DN: 'Javier didn't say that no one had washed the clothes'
*NC: 'Javier didn't say that anyone had washed the clothes'

Recall that in (7) the only reading that becomes available at LF is the DN reading. This is because the negative marker and the n-word are in different syntactic domains, and as a consequence, the agreement relation between these two elements cannot be established. Let us examine how we can account for the DN reading of a sentence like (7) under my analysis.

The syntactic derivation of (7) is presented in (8) below. First, in the embedded clause the subject n-word raises to Spec, PolP, just as it would in a matrix clause. In that position, its
uninterpretable unvalued feature uPol[ ] is valued by $\mathrm{iPol}[\mathrm{neg}]$ through Agree. However, when the embedded C-head is merged on top of PolP, it is merged with an interpretable mood feature valued as indicative, i.e., iMood[IND]. According to Bobaljik \& Wurmbrand (2013) this is because there is no feature dependency between the potential phase head $\mathrm{C}^{\prime}$ and the lexical value of matrix verbs of the decir-type. Consequently, the embedded C-domain is sent to Spell-Out. At the interfaces, the LF component interprets the iPol[neg] feature of the embedded clause and this yields the negative interpretation of the embedded clause. At the PF component, the phonological realization of $\mathrm{iPol}[\mathrm{neg}]$ as the Spanish negative marker/no/ is deleted through the Obliteration rule in (4) and this prevents it from being spelled-out in the embedded clause.

The derivation in (8) continues and when the matrix PolP is sent to Spell-Out, the LF component will interpret its negative polarity feature. This time Obliteration will not apply at PF because the context for its application will not be met. Thus, the PF component will phonologically realize the $\mathrm{iPol}[\mathrm{neg}]$ feature of the matrix clause as the Spanish negative marker /no/. Notice that at this point, the LF component has already interpreted two iPol[neg] features at two different stages in the derivation, the matrix and the embedded clause respectively. This results in the DN reading that we find for the sentences in (7).


As illustrated in the analysis in (8), the embedded CP in indicative clauses constitutes a solid phasal domain. Taking this into account, explaining the unacceptability of embedded indicative clauses with postverbal n-words like (9) for speakers of Northern Peninsular Spanish becomes less of a puzzle.
(9) *Mi madre no dijo [cP que Pedro había vendido nada en su tienda] My mom neg say-3sg.past.ind that Peter had sold nothing at his store 'My mom didn't say that Peter had sold anything at his store'

The syntactic representation of the sentence in (9) is given in (10) below. As shown in (10) the embedded CP in indicative clauses is a phase. Consequently, the agreement relation between the
$\mathrm{iPol}[\mathrm{neg}]$ in the matrix clause and the uninterpretable unvalued polarity feature uPol[ ] in the embedded clause cannot be established. As a result, the LF component receives an uninterpretable unvalued polarity feature which triggers a violation, which accounts for the unacceptability of these sentences.
(10)


### 6.5 An Analysis of Infinitival Clauses

In chapter 5 the case of infinitives was discussed. These structures show a high degree of transparency for NC relationships, which can be explained by their lack of an embedded CP and TP layer (Wurmbrand, 1998; Bobaljik \& Wurmbrand, 2013). An example of an embedded infinitive is provided in (11).
(11) Pedro no pudo vender nada en su tienda Peter neg can-3Sg.past.ind sell-inf nothing at his store 'Peter couldn't sell anything at his store'

The example in (11) presents a postverbal n-word inside of an embedded infinitive clause, which is preceded by a negated epistemic modal. Recall that these types of sentences were highly acceptable to the speakers in chapter 5. The syntactic analysis of (11) is presented in (12).


The lack of a CP and TP layer in the simplified infinitival structure in (12) explains why NC relationships can be established across these types of clauses. In these structures the infinitive verbs is selected by the epistemic modal ${ }^{26}$ poder 'can'. This dependency allows for the uPol[ ]

[^25]feature of the embedded n-word to be valued by the matrix iPol[neg] feature through Agree. Thus, in a way the analysis of NC in embedded infinitives is very similar to that of matrix clauses.

### 6.6 An Analysis of Embedded Subjunctive Clauses with Preverbal N-words

The analysis for embedded subjunctive clauses is different to that of the embedded indicative ones with respect to one crucial aspect: subjunctive clauses trigger Domain Suspension (Bobaljik \& Wurmbrand, 2013), which postpones the phasehood of the embedded C until the feature dependency between the embedded $\mathrm{C}^{0}$ and the lexical value of the verb is satisfied. This is the case of example (3) from chapter 5, repeated here in (13).

> (13) Javier no cree que nadie lavara la ropa]
> Javier NEG believe-3SG.PRSNT.IND that No one wash-3SG.PAST.SUBJ the clothes
> *DN: 'It is not the case that Javier believes that no one had washed the clothes'
> NC: 'It is not the case that Javier believes that someone had washed the clothes'

In (13) we find a negated epistemic verb in the matrix clause followed by an embedded subjunctive clause with a preverbal n-word. As discussed in chapter 5, speakers of Northern Peninsular Spanish attributed NC readings to these types of sentences. The NC readings of (13) are derived from the analysis in (14).


The derivation in (14) proceeds as follows. First, in the embedded clause the subject n-word raises to Spec, PolP, just as it would in a matrix clause. In that position, its uninterpretable unvalued feature uPol[ ] is valued by the feature $\mathrm{iPol}[\mathrm{neg}]$ in $\mathrm{Pol}^{0}$ through Agree. However, when the embedded C-head is merged on top of PolP, it is merged with an interpretable unvalued mood feature, i.e., iMood[ ]. This is because according to Bobaljik \& Wurmbrand (2013), embedded subjunctive clauses are underspecified with regards to their mood, which makes them dependent on the verb in the matrix clause. Recall that in embedded indicative clauses this feature is specified as iMood [IND]. As a consequence, the unvalued mood feature of the potential phase head triggers Domain Suspension and the phasehood of C' is suspended.

The derivation in (14) continues and the matrix PolP projection is merged on top of TP. Notice that in the sentence in (13) the matrix verb creer 'believe' is an epistemic verb and these types of verbs are so-called Neg-raising predicates (see section 2.1). Thus, the head of the newly generated PolP projection in the matrix clause provides a proper landing site for the $\mathrm{iPol}[\mathrm{neg}]$ feature in the embedded clause. A consequence of $\mathrm{iPol}[\mathrm{neg}]$ raising form the embedded clause to the matrix clause is that now it will c-command the matrix verb in T , thus providing it with a negative lexical value. This will check the unvalued mood feature in the embedded $\mathrm{C}^{0}$ as subjunctive.

After all feature valuations have taken place, the structure in (14) is sent to Spell-Out. At LF , only the higher $\mathrm{iPol}[\mathrm{neg}]$ feature will be interpreted and this yields the NC reading that we obtain for sentences like (14). On the other hand, Obliteration will not be able to apply at the PF component because the $\mathrm{iPol}[\mathrm{neg}]$ feature of the embedded clause will have moved to the matrix clauses as a result of Neg-raising. Thus, the matrix $\mathrm{iPol}[\mathrm{neg}]$ and the embedded uPol[neg] features will be spelled-out independently as the Spanish negative marker no and the n-word nadie.

After having dealt with the analysis of NC in embedded subjunctive clauses to epistemic verbs, we are now ready to tackle embedded subjunctive clauses to adversative verbs. The sentence in (15) shows an example of an embedded subjunctive clause with a preverbal n-word and preceded by a matrix adversative verb.
(15) Mi familia duda/niega [CP que nadie viera el documental]

My family doubt/deny-3SG.PRSNT.IND that no one see-3SG.PAST.SUbj the documentary
DN: 'My family doubts/denies that no one had seen the documentary'
*NC: 'My family doubts/denies that anyone had seen the documentary'

Herburger (2001) and Tubau (2008) reported sentences like (15) to be ambiguous between NC and DN readings. However, this sentence was not ambiguous to the vast majority of speakers of

Northern Peninsular Spanish tested in the experiment in chapter 5. In fact, these speakers assigned DN readings to these types of sentences. This finding is surprising given the similarities in meaning between negated epistemic verbs like no creer 'believe' and dudar 'to doubt'. Nonetheless, if we consider that adversative verbs do not belong to the family of Neg-raising verbs, the finding becomes less surprising: in embedded subjunctive clauses to adversative verbs, negation cannot raise to the matrix clause. This explains why embedded subjunctive clauses with preverbal n-words yield DN readings when the matrix verb is adversative but do not when the matrix verb is a negated epistemic. The syntactic analysis of the sentence in (15) is provided in (16).


The derivation in (16) proceeds as in (14). First, the unvalued polarity feature of the n-word raises from its base generated position in Spec, $v^{*} \mathrm{P}$ to $\mathrm{Spec}, \mathrm{PolP}$ in the embedded clause. At this point, the unvalued polarity feature in Spec , PolP is valued as negative by the interpretable polarity
feature in the head of PolP. C' merges on top of PolP with an interpretable unvalued mood feature triggering Domain Suspension. When a matrix verb like dudar 'doubt' or negar 'deny' is merged into the structure, the lexical value of the verb checks the iMood[ ] feature in $\mathrm{C}^{0}$ as subjunctive. This will allow the embedded verb to surface with subjunctive morphology (possibly after movement to C).

Notice that in the structure in (16) there is no matrix PolP projection to which the iPol[neg] feature in the embedded clause can raise. This is because adversative verbs are not Neg-raising verbs and therefore negation cannot raise from the embedded to the matrix clause. In addition, given that the mood feature in the potential phase head $\mathrm{C}^{0}$ has already been valued by the matrix verb, there will be no more feature dependencies between the embedded and the matrix clause. As a consequence, the structure will be sent to Spell-Out at the next potential cyclic phase, $v^{*}$.

At the interfaces, the LF component will receive two $\mathrm{iPol}[\mathrm{neg}]$ features: the one in the embedded Pol-head and the one carried by the matrix verb. These two negative interpretations taken together will yield the expected DN reading of the sentence. On the other hand, Obliteration will apply at the PF component and this deletes the phonological realization of the feature iPol [neg] as the Spanish /no/. At the same time, the now valued uPol[neg] feature in Spec, PolP will be spelled-out as /nadie/.

### 6.7 An Analysis of Embedded Subjunctive Clauses with Postverbal N-words

After having laid out the analyses for matrix clauses with postverbal n-words as well as embedded subjunctive clauses, accounting for the NC reading of embedded subjunctive clauses with postverbal n-words becomes less of a challenge. An example of such sentences is provided in (17) and (18) respectively.
Cristina no cree [cP que Paul comprara nada]
Cristina NEG believe-3SG.PRSNT.IND that Paul buy-3SG.PAST.SUBJ NOTHING
NC: 'It is not the case that Cristina believes that Paul bought something'
(18) Cristina duda [cР que Paul comprara nada]

Cristina doubt-3SG.PRSNT.IND that Paul buy-3SG.PASt.SUbJ nothing
NC: Cristina doubts that Paul bought anything'

The sentences in (17) and (17) show examples of embedded subjunctive clauses with postverbal n-words to a negated epistemic verb, and an adversative verb respectively. Examples like (17) and (18) were attributed a NC reading by the participants in chapter 5. Even though these two structures have the same semantic meaning, they differ in the way they license the n-word in the embedded clause. In the structures in (17) the n-word is licensed locally by the $\mathrm{iPol}[\mathrm{neg}]$ feature in the embedded clause, which undergoes Neg-raising to a higher PolP projection in the matrix clause. On the other hand, structures like (18) lack a PolP projection in the embedded clause and Domain Suspension allows for the n-word to be licensed by the iPol[neg] feature of the matrix verb. The simplified syntactic representations for the structures in (17) and (18) are provided in (19) and (20) below.


As discussed in section 6.3, a consequence of v-to-T movement is that syntactic objects and postverbal subjects need to raise to the outer layers of v *P to receive case (see Gallego 2005, 2007; and Tubau, 2008 for further argumentation). This allows for the unvalued polarity feature of the n-word nada to be "visible" by the iPol[neg] feature in the embedded PolP projection, thus allowing the establishment of an agreement relationship between these two features. This is also the case in the derivation in (20) below. In addition, a consequence of the embedded $\mathrm{iPol}[\mathrm{neg}]$ feature undergoing Neg-raising is that the semantic interface, i.e., LF, will only receive a single
negative feature, namely the $\mathrm{iPol}[\mathrm{neg}]$ in the matrix clause. As a consequence, the sentence in (17) will receive a NC reading.


Notice that in both (19) and (20) the unvalued iMood feature in $\mathrm{C}^{0}$ will trigger Domain Suspension. However, in (20) the valuation of this feature will take place sooner than in (19). This is because in (20) the iMood[ ] feature will be valued as soon as the verb dudar is merged in the structure. In (19), on the other hand, this feature will not be valued until the matrix PolP projection is merged on top of TP.

### 6.8 Conclusion

In this chapter I have provided a Minimalist syntactic analysis of the phenomenon of NC in Northern Peninsular Spanish. This analysis is informed by the results gathered from the experiments in chapters 3-5. Further, I have illustrated with different examples how my analysis is able to account for a number of different phenomena observed in Spanish NC, such as, the behavior of preverbal and postverbal n-words in the structure and the asymmetry observed with respect to the locality of NC between embedded indicative as well as embedded subjunctive and infinitive clauses. In addition, I have explained how the differences in the semantic interpretation as well as the acceptability/unacceptability of these clauses can be accounted for in terms of structural differences or restrictions imposed by syntactic locality.

## 7 GENERAL CONCLUSIONS AND IMPLICATIONS

In this final chapter, I first summarize the conclusions from the experiments in chapters 35. Next, I discuss their implications for syntactic theory, code-switching and the I-language of Basque/Spanish bilinguals. Finally, I discuss some avenues for future research.

### 7.1 Summary of Conclusions from Previous Experiments

This dissertation presents an empirical investigation of the phenomenon of NC in Northern Peninsular Spanish. In particular, it focuses on three longstanding issues pertaining to this phenomenon: the characterization of Spanish n-words, the behavior of Spanish n-words in preverbal position and the phenomenon of long distance licensing of n-words in embedded clauses.

The experiment in chapter 3 sheds light on the status of Spanish n-words by comparing their behavior to English Negative Quantifiers as well as English and Basque Negative Polarity Items. Based on Acceptability Judgment data on sentences containing negation-related elements across different conditions, I conclude that Spanish n-words are better characterized as indefinites that are negation dependent. This finding is in line with the assumptions in Zeijlstra (2004), Tubau (2008) and Penka (2011).

The experiment in chapter 4 examines the apparent negative behavior of Spanish n-words in preverbal position using data from Basque/Spanish CS. This experiment tests the proposal outlined in Tubau (2008) who assumes that Spanish n-words carry the uninterpretable unvalued feature uPol[ ], which is valued as negative by the feature [neg] of the negative marker through Agree. Assuming a Distributed Morphology framework, she proposes that the reason why preverbal n-words in Spanish are interpreted as negative is due to an Obliteration rule that deletes the syntactic terminal [neg] before Vocabulary Insertion. The results from this experiment reveal
that Obliteration does not target the syntactic terminal [neg] but its phonological realization as the Spanish /no/ after Vocabulary Insertion.

The goal of the experiment in chapter 5 is to determine whether NC is a syntactic or a semantic phenomenon. To this end, I examine Acceptability Judgment and Forced-choice Interpretation data from speakers of Northern Peninsular Spanish on different embedded clauses containing negative elements. The results provide empirical evidence in support of the syntactic characterization of the phenomenon of NC in Spanish.

The findings from the experiments in chapter 3, 4 and 5 feed the Minimalist syntactic analysis of Negative Concord in Northern Peninsular Spanish provided in chapter 6. This analysis accounts for the transparency effects observed in embedded subjunctive clauses regarding NC by assuming the principle of Domain Suspension proposed in Bobaljik \& Wurmbrand (2013). The crucial idea behind Domain Suspension is that merging a verb that selects for subjunctive with its complement involves a featural dependency that spans the domain boundary, suspending phasehood of the complement. In addition, the asymmetries in the interpretation as well as acceptability of the different types of embedded clauses have been accounted for in in terms of structural differences and restrictions imposed by syntactic locality.

## $7.2 \quad$ Significance of Findings

This dissertation has important implications for our understanding of the phenomenon of NC in Spanish and linguistic theory. First, the findings from the experiment in chapter 3 provide empirical cross-linguistic evidence in support of the characterization of Spanish n-words as indefinites that are negation dependent. This highlights the importance of those analyses that treat Spanish n-words as indefinites, such as the one in Zeijlstra (2004) and Tubau (2008).

Second, the experiment in chapter 4 contributes to the framework of Distributed Morphology by providing evidence that in some cases, post-syntactic operations such as Obliteration can apply to Vocabulary Items that have already undergone Vocabulary Insertion. In addition, the assumption that Spanish n-words in preverbal position receive their negativity through agreement with a covert [neg] feature, receives further support from the Basque/Spanish code-switching data. In other words, while in Spanish preverbal n-words always appear on their own (without any overt negative marker), in Basque/Spanish code-switching n-words cannot appear on their own and need to be accompanied by the Basque negative marker $e z$ 'not'.

Third, the results from the Acceptability Judgment and Forced-choice Interpretation Task in chapter 5 contribute to the theoretical debate regarding the semantic/syntactic characterization of the phenomenon of NC. In particular, these results provide evidence that the availability of NC licensing in embedded clauses is not conditioned by semantic properties but by syntactic locality. This predicts that the locality effects observed in the licensing of $n$-words in embedded indicative, adjunct and complex-NP clauses should also be observed in embedded conditionals and relative clauses.

Moreover, the analysis in chapter 6 contributes to syntactic theory by providing an explanation on the specific dependencies that allow long distance licensing of negative elements in some clauses but not in others. In particular, this analysis operationalizes Bobaljik \& Wurmbrand's (2013) Domain Suspension principle to account for the availability of NC relationships across embedded subjunctive clauses. This adds NC to the number of phenomena that can be accounted for by assuming Bobaljik \& Wurmbrand's principle.

The findings in this dissertation also have important implications for code-switching and the I-language of Basque/Spanish bilinguals. To the best of my knowledge, this dissertation has
been the first to bring Basque/Spanish code-switching data to the study of negation. Most importantly, I have shown that code-switching is a useful tool for examining language interactions that are not directly visible in monolingual data. In particular, the feature interactions observed in Basque/Spanish code-switching reported in this dissertation present an argument in favor of the notion that code-switching should not be understood as the mixing of two grammars but rather as the growth of an integrated linguistic competence. Finally, assuming a single Lexicon in the Ilanguage of bilinguals has an important implication, namely, that vocabulary items from "both languages" might be in competition for insertion. This has important repercussions for our understanding of code-switching, code-switching theories and the Distributed Morphology framework.

### 7.3 Avenues for Future Research

This dissertation has touched upon various issues observed in the phenomenon of NC in Spanish. However, there are some issues that have been left unresolved, which provide fruitful avenues for future research.

First, in this dissertation I have provided evidence that examining linguistic phenomena through the looking glass of Basque/Spanish code-switching is very productive and allows us to examine feature interactions that are not directly visible from monolingual data. To this end, my future research will study other linguistic phenomena, e.g., complementizer duplication and partitive case marking, in Basque/Spanish code-switching. In addition, in future research I will study negation in other code-switching language pairs, such as Spanish and English. This will contribute to our understanding of the impact of language contact on syntactic operations.

Second, future research will examine those Basque/Spanish CS sentence where a Spanish n-word in preverbal position is followed by a Basque NPI in postverbal position, as shown in (1).
(1) Nadie ha hecho ezer

No one AUX-3SG.PRSNT do ANYTHING

Recall that from the Obliteration rule presented in chapter 4, we can predict sentences such as (1) to be acceptable. This is because after the Basque NPI has been licensed by the iPol[neg] feature in PolP, Obliteration would delete the phonological realization of this feature as the Spanish negative marker /no/. Although, this prediction has been confirmed by three Basque/Spanish bilingual consultants, examples such as the one in (1) will need to be examined further in an experimental setting.

Third, future research will further study the phenomenon of NC in adjunct clauses headed by porque 'because' and para que 'so that'. These cases have been discussed in chapter 5, where I provide an analysis to account for NC licensing phenomena across these types of clauses. Nonetheless, the analysis provided in chapter 5 is tentative and will be developed further in the future. In addition, I will also examine relative clauses like those in (2), which seem to also license NC relations across them.
(2) No revelaré secretos que ofendan a nadie nEG reveal-1SG.fut secrets that offend no one
'I will not reveal secrets that might offend anyone'

Fourth, another obvious area for future research is to study other NC languages like French, Portuguese and Italian to be able to develop a unified syntactic analysis of this phenomenon. In addition, the questions of dialect difference regarding the phenomenon of NC in Spanish remains
understudied and should be addressed more explicitly. This lays the foundations for many possible studies examining the impact that dialectal differences might have on NC phenomena.

Finally, there is still work to be done regarding the semantics/prosody interface in Spanish. In fact, the work by Espinal \& Prieto (2011), Tubau \& Espinal (2012) and Prieto et al. (2013) has already taken on this task by analyzing the phenomenon of DN in Catalan. Their studies suggest that DN readings are not only triggered by the interaction between two inherently negative features but also by the intonation contour of the $n$-word. Thus, my future research will examine if prosody, and in particular, the intonation contour of n-words, also plays a role in the interpretation of sentences containing negative elements in Spanish.

## 8 REFERENCES

Arregi, K., \& Nevins, A. (2007). Obliteration vs. impoverishment in the Basque g-/zconstraint. University of Pennsylvania Working Papers in Linguistics, 13(1), 2.

Baker, M. C. (2013). On agreement and its relationship to case: Some generative ideas and results. Lingua, 130, 14-32.

Belazi, H. M., Rubin, E. J. \& Toribio, A. J. (1994). Code switching and X-Bar Theory: the Functional Head Constraint. Linguistic Inquiry 25 (2), 221-237.

Birdsong, D., Gertken, L. M., \& Amengual, M. (2012). Bilingual language profile: An easy-to-use instrument to assess bilingualism. COERLL, University of Texas at Austin.

Blaszczak, J. (1998). The Riddle of N-words in Polish: Quantificational versus Nonquantificational. Universal versus Existential. Talk presented at Negation: Syntax, Semantics and Pragmatics. ESRI. University of Salford.

Bobaljik, J., \& Wurmbrand, S. (2013). Suspension across domains. Distributed Morphology Today: Morphemes for Morris Halle, 185-198.

Bonet, E. (1991). Morphology after syntax: Pronominal clitics in Romance. MIT Press.
Bonet, E. (1995). Feature structure of Romance clitics. Natural language \& linguistic theory, 13(4), 607-647.

Bosque, I. (1980). Sobre la Negación. Madrid: Ediciones Cátedra.
Calabrese, A. (2004). Prolegomena to a realistic theory of phonology, ms., University of Connecticut and Università di Sienna.

Carstens, V. (2001). Multiple Agreement and Case Deletion: Against $\varphi$ incompleteness. Syntax, 4(3), 147-163.

Chomsky, N. (1992). A Minimalist Program for Linguistic Theory. MIT Occasional Papers in Linguistics.

Chomsky, N. (1993). A Minimalist Program for Linguistic Theory, in K. Hale and S. J. Keyser (eds.). The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger. Cambridge, MA: the MIT Press, 1-52. [reprinted in Chomsky (1995)]

Chomsky, N. (1995). The Minimalist Program. Cambridge, MA: the MIT Press.
Chomsky, N. (1998). Minimalist Inquiries. Cambridge, MA: the MIT Press.

Chomsky, N. (2000). "Minimalist Inquiries: the Framework," in R. Martin, D.Michaels and J. Uriagereka (eds.). Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik. Cambridge, MA: the MIT Press, 89-155.

Chomsky, N. (2001). "Derivation by Phase," in M. Kenstowicz (ed.). Ken Hale: a Life in Language. Cambridge, MA: the MIT Press, 1-52.

Chomsky, N. (2005). On Phases, ms., Massachusetts Institute of Technology.
Collins, C., \& Postal, P. M. (2014). Classical NEG Raising: An Essay on the Syntax of Negation. MIT Press.

De Swart, H., \& Sag, I. A. (2002). Negation and negative concord in Romance. Linguistics and Philosophy, 25(4), 373-417.

Den Dikken, M. (2012). Of orphans and twins: Accounting for some peculiar patterns in codeswitching. 2012 - University of Illinois at Chicago Talks in Linguistics (UIC TiL), Chicago, Illinois (USA).

Embick, D. (2010). Localism versus globalism in morphology and phonology (Vol. 60). MIT Press.

Embick, D., \& Noyer, R. (2007). Distributed morphology and the syntax/morphology interface. The Oxford handbook of linguistic interfaces, 289-324.

Espinal, M.T. (2000). On the Semantic Status of N-words in Catalan and Spanish, in Lingua 110: 557-580.

Espinal, M. T. (2007). Licensing expletive negation and negative concord in Catalan and Spanish. La négation dans les langues romanes, Amsterdam: John Benjamins, 49-74.

Espinal, M. T., \& Prieto, P. (2011). Intonational encoding of double negation in Catalan. Journal of Pragmatics, 43(9), 2392-2410.

Franco, J. \& Landa, A. (2006). "Preverbal N-words and Anti-Agreement Effects," in N. Sagarra and A. J. Toribio (eds.). Selected Proceedings of the 9 th Hispanic Linguistics Symposium. Somerville, MA: Cascadilla Proceedings Project, 34-42.

Gallego, A.J. (2004). Phase Effects in (Iberian) Romance, ms. Universitat Autònoma de Barcelona and Universidad del País Vasco-Euskal Herriko Unibertsitatea.

Gallego, A.J. (2005). Phase Sliding, ms., Universitat Autònoma de Barcelona and University of Maryland.

Gallego, A.J. (2007). Phase Theory and Parametric Variation. Ph.D. dissertation, Universitat Autònoma de Barcelona.

Gallego, Á.J., \& Uriagereka, J. (2011). Dos tipos de argumentos y la distinción indicativo/subjuntivo.

Giannakidou, A. (1998). Polarity Sensitivity as (Non)veridical Dependency, John Benjamins, Amsterdam.

Giannakidou, A. (2000). Negative... concord?. Natural Language \& Linguistic Theory, 18(3), 457523.

Giannakidou, A. (2002). Licensing and sensitivity in polarity items: from downward entailment to nonveridicality. CLS, 38, 29-53.

Giannakidou, A. (2006). N-words and negative concord. The syntax companion, 3, 327-391.
Giannakidou, A., \& Quer, J. (1997). Long-distance licensing of negative indefinites. Amsterdam Studies in the Theory and History of Linguistic Science Series 4, 95-114.

Giorgi, A. (2004). 'From temporal anchoring to long distance anaphor binding'. Paper presented at the 23rd West Coast Conference in Formal Linguistics. April 23-25, University of California at Davis, Davis CA.

Giorgi, A. (2006). A Syntactic way to Subjunctive. Working Papers in Linguistics, 16.
González-Vilbazo, K. \& López, L., (2012). Little $v$ and parametric variation. Natural Language \& Linguistic Theory, 30(1). 33-77.

González-Vilbazo, K. \& López, L., (2013). Phase switching. Workshop: code-switching in the bilingual child: within and across the clause. University of Wuppertal.

González-Vilbazo, K., Bartlett, L., Downey, S., Ebert, S., Heil, J., Hoot, B., \& Ramos, S. (2013). Methodological Considerations in Code-Switching Research. Studies in Hispanic \& Lusophone Linguistics, 6(1).

González-Vilbazo, Kay, \& Sergio E. Ramos. (Forthcoming). A morphosyntactic condition on sluicing: Evidence from Spanish/German code-switching. To appear in Linguistic Inquiry.

Haddican, W. (2004). Sentence polarity and word order in Basque. Linguistic review, 21, 87-124.
Haegeman, L. M. (1995). The syntax of negation (No. 75). Cambridge: Cambridge University Press.

Haegeman, L., \& Guéron, J. (1999). English grammar: A generative perspective. Blackwell Publishing.

Haegeman, L., \& Lohndal, T. (2010). Negative concord and (multiple) agree: a case study of West Flemish. Linguistic Inquiry, 41(2), 181-211.

Haegeman, L. \& Zanuttini, R. (1991). Negative Heads and the Neg Criterion. The Linguistic Review 8: 233-251.

Halle, M. (1997). On stress and accent in Indo-European. Language, 275-313.
Halle, M., \& Marantz, A. (1993). Distributed morphology and the Pieces of inflection. na.
Herburger, E. (2001). The negative concord puzzle revisited. Natural language semantics, 9(3), 289-333.

Horn, L. (1971). Negative transportation: Unsafe at any speed? In Papers from the Seventh Regional Meeting of the Chicago Linguistic Society, 120-133. Chicago: University of Chicago, Chicago Linguistic Society.

Horn, L. (1972). On the semantic properties of logical operators in English, Ph.D. dissertation UCLA

Horn, L. (1989). A Natural History of Negation. Chicago: Chicago University Press.
Huang, C. T. J. (1982). Move wh in a language without wh-movement. The linguistic review, 1(4), 369-416.

Joshi, A.K. (1985). Processing of sentences with intra-sentential code-switching. In Natural Language Parsing, D.R. Dowty, L.Karttunen and A.M. Zwicky (ed.), 190-205.

Klima, E.S. (1964). Negation in English, in Jerry A. Fodor and Jerrold J. Katz (eds.). The Structure of Language. Readings in the Philosophy of Language. Prentice Hall: New Jersey, 246323.

Koronkiewicz, B. (2014). Pronoun Categorization: Evidence from Spanish/English codeswitching. (Unpublished Doctoral Dissertation).University of Illinois at Chicago.

Ladusaw, W. (1979). Polarity Sensitivity as Inherent Scope Relations. Ph.D. thesis, University of Texas, Austin.

Ladusaw, W. (1992). Expressing Negation, in C. Barker and D. Dowty (eds.). Proceedings of SALTII. Columbus: the Ohio State University, 237-259.

Ladusaw, W. (1994). Thetic and Categorical, Stage and Individual, Weak and Strong, in M. Harvey and L. Santelman (eds.). Semantics and Linguistic Theory (SALT) IV. Ithaca: Cornell University Press, 220-229.

Laka, I. (1990). Negation in syntax. On the Nature of Functional Categories and Projections. Ph.D. dissertation, Massachusetts Institute of Technology.

López, L. (2007). Locality and the architecture of syntactic dependencies. New York; Basingstoke [England]: Palgrave Macmillian.

McCawley, J. D. (1991). Contrastive negation and metalinguistic negation. In Chicago Linguistic Society (Vol. 27, No. 2, pp. 189-206).

MacSwan, J. (1999). A minimalist approach to intrasentential code switching. Routledge.
Martín-González, J. (2002). The Syntax of sentential negation in Spanish. Cambridge, MA: Harvard University Dissertation.

Mahootian, S. (1993). A null theory of codeswitching (Doctoral dissertation, Northwestern University).

Merchant, J. (2004). Fragments and Ellipsis, in Linguistics and Philosophy 27: 661-738.
Merchant, J. (2011) Aleut case matters. In Pragmatic and Autolexical Grammar: In honor of Jerry Sadock, ed. by Etsuyo Yuasa Yuasa, Tista Bagchi and Katharine P. Beals, 328-411. Amsterdam: John Benjamins.

Ouhalla, J. (1990). Sentential Negation, Relativized Minimality and the Aspectual Status of Auxiliaries, The Linguistic Review, 7:183-231.

Penka, D. (2011). Negative indefinites (No. 32). Oxford University Press.
Pesetsky, D., \& Torrego, E. (2004). Tense, case, and the nature of syntactic categories. na.
Pesetsky, D., \& Torrego, E. (2007). The syntax of valuation and the interpretability of features. Phrasal and clausal architecture: Syntactic derivation and interpretation, 262294.

Pollock, J-Y. (1989). Verb Movement, Universal Grammar, and the Structure of IP. Linguistic Inquiry 20(3): 365-424.

Poplack, S. (1980). Sometimes I'll start a sentence in Spanish y termino en español: toward a typology of code-switching1. Linguistics, 18(7-8), 581-618.

Prieto, P., Borràs-Comes, J., Tubau, S., \& Espinal, M. T. (2013). Prosody and gesture constrain the interpretation of double negation. Lingua, 131, 136-150.

Progovac, L. (1994). Positive and Negative Polarity: A Binding Approach. Cambridge: Cambridge University Press.

Rizzi, L. (1997). The Fine Structure of the Left Periphery, in Liliane Haegeman (ed.). Elements of Grammar: Handbook of Generative Syntax. Dordrecht: Kluwer, 281-339.

Sande, A. (2014). How To Drop The Pro: Evidence From Code-Switching. Paper presented at the In-Between Conference, Chicago, IL: February 2014.

Sportiche, D.; Koopman, H. \& Stabler, E. (2014). An Introduction to Syntactic Analysis. West Sussex: Wiley Blackwell.

Suñer, M. (1995). "Negative Elements, Island Effects and Resumptive No," The Linguistic Review 12: 233-373.

Tonhauser, J. (2001). An approach to polarity sensitivity and negative concord by lexical underspecification. In Proceedings of the 7th International HPSG Conference, UC Berkeley (22-23 July, 2000), Stanford (pp. 285-304).

Torrego, E., \& Uriagereka, J. (1992). Indicative dependents, Ms. Inédito, University of Massachusetts and University of Maryland, Amherst MA and College Park, MD.

Tubau, S. (2008). Negative concord in English and Romance: Syntax-morphology interface conditions on the expression of negation (Doctoral dissertation, Netherlands Graduate School of Linguistics).

Tubau, S., \& Espinal, M. T. (2012). Doble negació dins l'oració simple en català. Estudis romànics, 34, 145-164.

Uribe-Etxebarria, M. (1994). Interface licensing conditions on NPIs: A theory of polarity and tense interactions, PhD dissertation, University of Connecticut.

Vallduví, E. (1994). Polarity items, n-words, and minimizers in Catalan and Spanish. HCRC Publications, University of Edinburgh.

Van der Sandt, R. (1989). Context and Presupposition. London: Croom Helm.
Van der Wouden, T., \& Zwarts, F. (1993). A semantic analysis of negative concord. In Proceedings of SALT (Vol. 3, pp. 202-219).

Watanabe, A. (2004). The Genesis of Negative Concord: Syntax and Morphology of Negative Concord, Linguistic Inquiry 35(4): 559-612.

Wurmbrand, S. (1998). Infinitives (Doctoral dissertation, Massachusetts Institute of Technology).
Xiang, M., Grove, J., \& Giannakidou, (forthcoming) A. Explicit and implicit negation, negative polarity, and levels of semantic representation.

Zanuttini, R. (1991). Syntactic Properties of Sentential Negation: A Comparative Study of Romance Languages. Ph.D. dissertation, University of Pennsylvania.

Zanuttini, R. (1994). Re-examining negative clauses. Paths towards universal grammar: Studies in honor of Richard S. Kayne, 427-451.

Zeijlstra, H.H. (2004). Sentential Negation and Negative Concord. Ph.D. dissertation, University of Amsterdam.

## 9 APPENDICES

### 9.1 Appendix A. Linguistic Background Questionnaires

Linguistic background questionnaires for Experiment 1 (chapter 3).

## ENGLISH:

## BACKGROUND QUESTIONNAIRE

## Participant \#:

1) Gender:
2) Age:
3) How many languages do you speak?

Which ones?
4) Place of residence:
5) Places where you have lived for 6 months or longer:
6) Education level: a) elementary
b) high school
c) university
d) graduate
8) What is your dominant language? (You can have more than one)
9) At what age did you begin to study English grammar at school?
10) How many hours do you spend speaking English during the week?
11) What language do you use to communicate with the following people?
Father: Mother: Brother(s):

Sister(s): Friend(s): Partner:
Co-worker(s): Relatives:
12) What language do you primarily use to communicate in the following places/activities?

Home: School: Work:
Free time activities: Hospital:
13) On a scale from 1-10, ten being the highest (native speaker level), what do you believe your level of English is now?
14) On a scale from 1-10, ten being the highest, what do you believe your level of Spanish is now?
15) If you speak other languages, on a scale from 1-10, ten being the highest (native speaker level), what do you believe your level of that language is now?
Language 1:
Level:
Language 2: Level:
Language 3: Level

## SPANISH:

## CUESTIONARIO LINGÜÍSTICO

Participante \#:

1) Sexo:
2) Edad:
3) ¿Cuántos idiomas hablas? ¿Cuáles?
4) Lugar de residencia:
5) Lugares en los que has vivido por más de 6 meses:
6) Nivel de educación:
a) primaria
b) instituto
c) universidad
d) estudios de postgrado
7) ¿Cuál es tu idioma dominante? (puedes tener más de uno)
8) A qué edad empezaste a aprender gramática del español en el colegio?
9) ¿Durante cuántas horas hablas en español durante la semana?
10) ¿Qué idioma utilizas para comunicarte con las siguientes personas?

Padre: Madre: Hermano(s):
Hermano(s):
Amig@(s): Pareja:
Compañeros de trabajo: Familiares:
12) ¿Qué lengua sueles hablar en los siguientes lugares?

En casa: En la universidad: En el trabajo:
En tu tiempo libre: En el hospital:
13) Describe tu nivel de español en una escala del 1 al 10, 10 siendo el valor más alto (nativo hablante):
14) Describe tu nivel de inglés en una escala del 1 al 10,10 siendo el valor más alto:
15) Si hablas otros idiomas, describe tu nivel en esos idiomas del 1 al 10:

Idioma 1: Nivel:
Idioma 2: Nivel:
Idioma 3: Nivel:

## BASQUE:

## HIZKUNTZA GALDEKETA

Partaide zenbakia:

1) Sexua:
2) Adina:
3) Zenbat hizkuntzatan mintzatzen zara?

Zeintzuk?
4) Bizilekua:
5) Zeintzuk izan dira 6 hilabete baino gehiagotan bizi izan zaren lekuak?
6) Ikasketa maila: a) lehen hezkuntza b) institutua $\quad$ c) unibertsitatea
d) graduondoko ikastaroak
8) Zein da zure ama hizkuntza? (Hizkuntza bat baino gehiago izan dezakezu)
9) Zein adinetan hasi zinen euskararen gramatika ikasten?
11) ¿Astero, zenbat ordutan hitz egiten duzu euskaraz?
12) Zein da pertsona hauekin hitz egiten duzun hizkuntza?

Aita:
Arreba(k):
Lankideak:
Ama:
Laguna(k):
Senideak:
13) Zein hizkuntzatan mintzatzen zara leku hauetan?

Etxean: Unibertsitatean: Lanean:
Aisialdian: Ospitalean:
14) 1tik 10era zein ondo hitz egiten duzu euskaraz? ( $1=$ gaizki, $10=$ bikain $)$.
15) 1tik 10era zein ondo hitz egiten duzu gazteleraz? ( $1=$ gaizki, $10=$ bikain $)$.
15) Beste hizkuntzetan mintzatzen bazara, zein ondo hitz egiten duzu hizkuntza hoietan? (1tik 10 era)

Idioma 1:
Idioma 2:
Idioma 3:

Nivel:
Nivel:
Nivel:

BLP questionnaire (Birdsong et al., 2012). Basque version. Experiment 2 (chapter 4):

## Bilingual Language Profile: Spanish-Basque (modified)

## I. Informazio bibliografikoa



Aipatu noizbait atzerrian bizi izan zaren: $\qquad$
Azkenengo galderan "bai" erantzun baduzu aipatu zein herrialde atzerritarrean bizi izan zaren eta bertan igarotako denbora

Euskararen Gaitasun Agina (EGA) eskuratuta?
$\square$ Bai
Hitz egiten dituzun beste hizkuntzak (txikitatik ez ikasitakoak). Adibidez: frantzesa, ingelesa, alemaniarra, italiarra, portuguesa...etab. Hizkuntza bat baino gehiago hitz egiten badituzu. Aipa ezazu gehien menperatzen duzun hizkuntza bakarrik, honen jakintza baxua izan arren:

## Kode-nahasketa

Lagunekin edo senideekin hitz egiten duzunean, euskara eta gaztelera nahasten al dituzu? $\square \mathrm{Bai} \square \mathrm{Ez}$
Zer maiztasunarekin? $\square$ Oso maiz $\square$ Maiz $\square$ Batzutan $\square$ Inoiz
Zer deritzozu kode-nahasteari buruz? Hau da, elkarrizketa batean euskara eta gaztelera nahastea.
$\square$ Oso ondo iruditzen zait. Naturala da
$\square$ Ondo iruditzen zait
$\square$ Honi buruz, ez daukat iritsi sendorik
$\square E z$ zait gustatzen. Ez da naturala
$\square$ Oso txarto iruditzen zait
$\square$ Zentzugabekeria da
II. Hizkuntzahistoriala:

Atal honetan zure hizkuntza historialaren inguruko galdera batzuk erantzutea eskatuko dizugu dagokion laukia markatuz.

1. Zein adinekin hasi zinen ondorengo hizkuntzak ikasten?


2. Zein adinekin hasi zinen eroso sentitzen ondorengo hizkuntzak erabiltzen?

| Gaztelera |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Belldarik | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |

3. Zenbat urtez jaso dituzu klaseak (gramatika, historia, matematikak, etab.) ondorengo hizkuntzetan (lehen hezkuntzatik unibertsitatera bitartean)?

| $\begin{gathered} \text { Gaztelera } \\ \square \\ \square \end{gathered}$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ 8 | $\square$ | $\square$ | $\square$ | $\stackrel{\square}{12}$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square_{20+}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Euskara |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\square \square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| 01 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 8 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20+ |

## 4. Zenbat urte pasa dituzu ondorengo hizkuntzak hitzegiten diren herrialde/lurralde batean?

$\begin{array}{ccccccccccccccccccccc}\text { Gaztelera } \\ \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square \\ 0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 18 & 20+\end{array}$

## Euskara

$\begin{array}{llllllllllllllllllllllllllll}\square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square \\ 0 & \square & 2 & \square & 4 & 5 & 6 & 7 & 8 & 8 & 10 & 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 19 & 20+\end{array}$
5. Zenbat urtez hitzegin dituzu ondorengo hizkuntzak familian?

$$
\begin{array}{ccccccccccccccccccccc}
\text { Gaztelera } \\
\square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square \\
0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 18 & 20+ \\
\text { Euskara } \\
\quad \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square \\
0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 18 & 20+
\end{array}
$$

6. Zenbat urtez izan zara ondorengo hizkuntzak erabiltzen diren lan ingurunean?

$$
\begin{aligned}
& \left.\begin{array}{cccccccccccccccccccc}
\text { Gaztelera } \\
\square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square \\
0 & 1 & 2 & \square & 4 & 5 & 6 & 7 & 8 & 8 & 10 & 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 19
\end{array}\right) 20+8 \\
& \text { Euskara } \\
& \begin{array}{ccccccccccccccccccc}
\square \\
0 & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square \\
\hline
\end{array}
\end{aligned}
$$

## III. Hizkuntzen erabilera

Atal honetan hizkuntzen erabileraren inguruko galdera batzuk erantzun beharko dituzu dagokion laukia markatuz. Hizkuntza guztien erabileraren baturak \%100era heldu behar du galdera bakoitzean.
7. Aste arrunt batean, denboraren zein ehunekotan erabiltzen dituzu ondorengo hizkuntzak zure lagunekin?

8. Aste arrunt batean, denboraren zein ehunekotan erabiltzen dituzu ondorengo hizkuntzak zure familian?

9. Aste arrunt batean, denboraren zein ehunekotan erabiltzen dituzu ondorengo hizkuntzak zure ikastetxean/lanean?

10. Zure buruarekin hitzegiten duzunean, zer nolako maiztasunarekin hitzegiten diozu zure buruari ondorengo hizkuntzetan?

11. Zenbatzen kalkuluak egiten dituzunean, zer nolako maiztasunarekin zenbatzen duzu ondorengo hizkuntzetan?

| Gaztelera | $\square$ | $\% 10$ | $\square$ | $\square \square_{\% 30}$ | $\square \square^{\square}$ | $\square_{\% 50}$ | $\square_{\% 60}$ | $\square \square^{\square}$ | $\% 80$ | $\% 90$ | $\% 100$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Euskara | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | \%0 | \%10 | \%20 | \%30 | \%40 | \%50 | \%60 | \%70 | \%80 | \%90 | \%100 |
| Beste batzuk | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | \%0 | \%10 | \%20\% | \%30 | \%40 | \% 50 | \%60 | \%70 | \%80 | \%90 | \%100 |

## IV. Gaitasuna

Atal honetan zure hizkuntza gaitasunaren inguruan hausnartu eta ondorengo galderak Otik 6ra bitartean markatu beharko dituzu.

|  | $0=e z$ oso ondo |  |  |  |  | 6=050 ondo |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12. a. Nola hitzegiten duzu Gazteleraz? | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 8$ |
| b. Nola hitzegiten duzu Euskaraz? | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| 13. a. Nola ulertzen duzu Gazteleraz? | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| b. Nola ulertzen duzu Euskaraz? | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| 14. a. Nola irakurtzen duzu Gazteleraz? | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| b. Nola irakurzen duzu Euskaraz? | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| 15. a. Nola idazten duzu Gazteleraz? | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| b. Nola idazten duzu Euskaraz? | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |

## V. Jarrerak

Atal honetan hizkuntz jarreren inguruko zenbait baieztapen erantzun beharko dituzu Otik 6ra bitartean markatuz.

|  | $0=e z$ nago ados |  |  |  |  | 6=ados nago |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16. a. "Ni neu" sentitzen naiz Gazteleraz hitzegiten dudanean. | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| b. "Ni neu" sentitzen naiz Euskaraz hitzegiten dudanean. | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| 17. a. Kultura Erdaldun batekin identifikatzen naiz. | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| b. Kultura Euskaldun batekin identifikatzen naiz. | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| 18. a. Niretzako garrantzitsua da Gaztelania ama-hizkuntza bezala erabiltzea (edo erabiltzera heltzea). | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 8$ |
| b. Niretzako garrantzitsua da Euskara ama-hizkuntza bezala erabiltzea (edo erabiltzera heltzea). | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | प5 | $\square 6$ |
| 19. a. Besteek jaiotzezko Gaztelera hiztun bat naizela pentsatzea nahi dut. | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | प5 | $\square 6$ |
| b. Besteek jaiotzezko Euskara hiztun bat naizela pentsatze nahi dut. | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |

BLP questionnaire (Birdsong et al., 2012). Spanish version. Experiment 3 (chapter 5):

Bilingual Language Profile: Spanish-Basque (modified)

## I. Información biográfica



Indica si has estudiado/vivido en algún pais extranjero: $\qquad$
Si has respondido "sí" a la pregunta anterior, indica el país extranjero en el que estudiaste/viviste y la duración: $\qquad$
Otra lengua no-nativa. Es decir, aquella lengua que no aprendiste desde niño/a (ejemplos: Francés, Inglés, Alemán, Italiano, Portugués...etc. Si hablas más de una lengua no-nativa, escribe aquella lengua en la que creas que tienes un mayor dominio, incluso si ese dominio es bajo. En el caso de que no hables otra lengua, deja esta casilla en blanco:

## II. Historiallingüístico

En esta sección, nos gustaría que contestara algunas preguntas sobre su historial lingüistico marcando la casilla correspondiente.

1. ¿A qué edad empezó a aprender las siguientes lenguas?

2. ¿Cuántos años de clases (gramática, historia, matemáticas, etc.) ha tenido en las siguientes lenguas (desde la escuela primaria hasta la universidad)?
$\left.\begin{array}{cccccccccccccccccccc}\text { Castellano } \\ \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square \\ 0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 8 & 10 & 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 18\end{array}\right) 20+8$
$\begin{array}{ccccccccccccccccccccc}\text { Euskara } \\ \square \\ \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square \\ 0 & 1 & \square & \square & \square & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 18 & 20+\end{array}$
3. ¿Cuántos años ha pasado en un país/región donde se hablan las siguientes lenguas?

4. ¿Cuántos años ha pasado en familia hablando las siguientes lenguas?

| Castellano |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 18 |
| 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

6. ¿Cuántos años ha pasado en un ambiente de trabajo donde se hablan las siguientes lenguas?


III. Uso de lenguas

En esta sección, nos gustaría que contestara algunas preguntas sobre su uso de lenguas marcando la casilla correspondiente. El uso total de todas las lenguas en cada pregunta debe llegar al 100\%.
7. En una semana normal, ¿qué porcentaje del tiempo usa las siguientes lenguas con sus amigos?

| Castellano | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $0 \%$ | $10 \%$ | $20 \%$ | $30 \%$ | $40 \%$ | $50 \%$ | $60 \%$ | $70 \%$ | $80 \%$ | $00 \%$ | $100 \%$ |
| Euskara | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\square 0 \%$ | $10 \%$ | $20 \%$ | $30 \%$ | $40 \%$ | $50 \%$ | $60 \%$ | $70 \%$ | $80 \%$ | $90 \%$ | $100 \%$ |
| Otras lenguas | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\square 0 \%$ | $10 \%$ | $20 \%$ | $30 \%$ | $40 \%$ | $50 \%$ | $60 \%$ | $70 \%$ | $80 \%$ | $90 \%$ | $100 \%$ |

8. En una semana normal, ¿qué porcentaje del tiempo usa las siguientes lenguas con su familia?

| Castellano | $\square$ | $\underset{10 \%}{\square}$ | 20\% | $\square_{30 \%}$ | $40 \%$ | $50 \%$ | $\stackrel{\square}{60 \%}$ | ${\underset{70 \%}{ }}^{\square}$ | $\underset{80 \%}{\square}$ | $\square_{00 \%}$ | $\square_{100 \%}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Euskara | $\square_{0 \%}^{\square}$ | $\underset{10 \%}{\square}$ | 20\% | $\square_{30 \%}$ | $40 \%$ | $\underset{50 \%}{\square}$ | $\square_{60 \%}$ | 70\% | $80 \%$ | $90 \%$ |  |
| Otras lenguas | $\square_{0 \%}$ | $\underset{10 \%}{\square_{1}}$ | $20 \%$ | $\square_{30 \%}$ | $40 \%$ | $50 \%$ | $60 \%$ | $70 \%$ | 80\% | $00 \%$ | $\square_{100 \%}$ |

9. En una semana normal, ¿qué porcentaje del tiempo usa las siguientes lenguas en la escuela/el trabajo?

| Castellano | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $00 \%$ | $10 \%$ | $20 \%$ | $30 \%$ | 20\% | $50 \%$ | $60 \%$ | $70 \%$ | $80 \%$ | $00 \%$ | $100 \%$ |
| Euskara | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $00 \%$ | $10 \%$ | $20 \%$ | $30 \%$ | $40 \%$ | $50 \%$ | $60 \%$ | $70 \%$ | $80 \%$ | $00 \%$ | $100 \%$ |
| Otras lenguas | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $0 \%$ | $10 \%$ | $20 \%$ | $30 \%$ | $40 \%$ | $50 \%$ | $60 \%$ | $70 \%$ | $80 \%$ | $90 \%$ | $100 \%$ |

10. Cuando se habla a usted mismo, ¿con qué frecuencia se habla a sí mismo en las siguientes lenguas?

| Castellano | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $0 \%$ | $10 \%$ | $20 \%$ | $30 \%$ | $40 \%$ | $50 \%$ | $60 \%$ | $70 \%$ | $80 \%$ | $00 \%$ | $100 \%$ |
| Euskara | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\square 0 \%$ | $10 \%$ | $20 \%$ | $30 \%$ | $40 \%$ | $50 \%$ | $60 \%$ | $70 \%$ | $80 \%$ | $90 \%$ | $100 \%$ |
| Otras lenguas | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\square 0 \%$ | $10 \%$ | $20 \%$ | $30 \%$ | $40 \%$ | $50 \%$ | $60 \%$ | $70 \%$ | $80 \%$ | $90 \%$ | $100 \%$ |

11. Cuando hace cálculos contando, ¿con qué frecuencia cuenta en las siguientes lenguas?

Castellano


Euskara

Otras lenguas
$\begin{array}{lllllllllll}\square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square \\ 0 \% & 10 \% & 20 \% & 30 \% & 40 \% & 50 \% & 60 \% & 70 \% & 80 \% & 90 \% & 100 \%\end{array}$
$\begin{array}{lllllllllll}\square & \square & \square & \square & \square & \square & \square & \square & \square & \square & \square \\ 0 \% & \square 0 \% & \mathbf{2 0 \%} & \square & \square 0 \% & 40 \% & 50 \% & 60 \% & 70 \% & 80 \% & 90 \%\end{array}$

| IV. Competencia |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| En esta sección, nos gustaria que considerara su competencia de lengua marcando las casillas entre 0 y 6 . |  |  |  |  |  |  |  |  |
| 12. a. ¿Cómo habla en Castellano? | $0=n o \mathrm{muy}$ bien |  |  |  |  | $6=m u y$ bien |  |  |
|  |  | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square$ | 16 |
| b. ¿Cómo habla en Euskara? |  | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square$ |  |
| 13. a. ¿Cómo entiende en Castellano? |  | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square$ | 16 |
| b. ¿Cómo entiende en Euskara? |  | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square$ | 16 |
| 14. a. ¿Cómo lee en Castellano? | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square$ | 6 |
| b. ¿Cómo lee en Euskara? |  | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square$ | 16 |
| 15. a. ¿Cómo escribe en Castellano? |  | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square$ | 16 |
| b. ¿Cómo escribe en Euskara? |  | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square$ | 16 |
| V. Actitudes |  |  |  |  |  |  |  |  |
| En esta sección, nos gustaria que contestara a las siguientes afirmaciones sobre actitudes lingüisticas marcando las casillas entre 0 y 6 . |  |  |  |  |  |  |  |  |
| $0=$ no estoy de acuerdo $\quad 6=$ estoy de acuerdo |  |  |  |  |  |  |  |  |
| 16. a. Me siento "yo mismo" cuando hablo en Castellano. |  |  |  | $\square 2$ | $\square 3$ |  | $\square 5$ | $\square 6$ |
| b. Me siento "yo mismo" cuando hablo en Euskara. |  |  | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| 17. a. Me identifico con una cultura Hispanohablante. |  |  | $\square 1$ | $\square 2$ | $\square 3$ |  | $\square 5$ | $\square 6$ |
| b. Me identifico con una cultura Vasca. |  |  | $\square 1$ | $\square 2$ | $\square 3$ |  | $\square 5$ | $\square 6$ |
| 18. a. Es importante para mi usar (ollegar a usar) Castellano como un hablante nativo. |  | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| b. Es importante para mi usar (o llegar a usar) Euskara como un hablante nativo |  | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| 19. a. Quiero que los demás piensen que soy un hablante nativo de Castellano. |  |  | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| b. Quiero que los demás piensen que soy un hablante nativo de Euskara. |  | $\square 0$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |

### 9.2 Appendix B. Participant Language Background (Experiment in Chapter 3)

ENGLISH PARTICIPANTS:

|  |  | 范 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Male | 29 | Chicago, IL | NO | English, Spanish | University | English | English | 10 | 2 | 0 |
| 2 | Female | 30 | Chicago, IL | NO | English, Spanish | University | English | English | 10 | 4 | 0 |
| 3 | Female | 28 | Chicago, IL | NO | English, Spanish, French | University | English | English | 10 | 3 | 6 |
| 4 | Male | 27 | Chicago, IL | NO | English, Spanish | University | English | English | 10 | 2 | 0 |
| 5 | Female | 30 | Chicago, IL | NO | English, French | University | English | English | 10 | 0 | 5 |
| 6 | Male | 25 | Chicago, IL | NO | English, Spanish | University | English | English | 9 | 2 | 0 |
| 7 | Female | 27 | Chicago, IL | NO | English, Spanish | University | English | English | 10 | 3 | 0 |
| 8 | Male | 28 | Chicago, IL | YES, Spain (1 year) | English, Spanish | Graduate | English | English | 10 | 5 | 0 |
| 9 | Male | 31 | Chicago, IL | NO | English, Spanish | University | English | English | 9 | 3 | 0 |
| 10 | Female | 27 | Chicago, IL | NO | English, Spanish | University | English | English | 10 | 2 | 0 |


| $\mathbf{1 1}$ | Male | 28 | Chicago, IL | YES, Germany <br> (6 months) | English, <br> German | University | English | English | 10 | 0 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1 2}$ | Female | 28 | Evanston, IL | NO | English, <br> French | Graduate | English | English | 10 | 0 | 4 |
| $\mathbf{1 3}$ | Male | 32 | Waukegan, IL | NO | English | Graduate | English | English | 10 | 0 | 0 |
| $\mathbf{1 4}$ | Male | 27 | Chicago, IL | NO | English, <br> Spanish | University | English | English | 9 | 4 | 0 |
| $\mathbf{1 5}$ | Female | 24 | Chicago, IL | YES, France <br> $(1$ year) | English, <br> Spanish, <br> French | University | English | English | 10 | 2 | 5 |

SPANISH PARTICIPANTS:

|  | تِ | 荤 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16 | Female | 23 | Basauri, Bizkaia (SPAIN) | NO | Spanish, English, <br> Basque | University | Spanish | Spanish | 10 | 3 | 3 |
| 17 | Female | 24 | Basauri, Bizkaia (SPAIN) | NO | Spanish, English | University | Spanish | Spanish | 10 | 2 | 0 |
| 18 | Male | 23 | Bilbao, Bizkaia (SPAIN) | NO | Spanish, English | University | Spanish | Spanish | 10 | 3 | 0 |
| 19 | Female | 20 | Bilbao, Bizkaia (SPAIN) | NO | Spanish, <br> Basque | University | Spanish | Spanish | 10 | 3 | 4 |
| 20 | Male | 20 | Barakaldo, Bizkaia (SPAIN) | NO | Spanish, English | University | Spanish | Spanish | 10 | 4 | 0 |
| 21 | Female | 21 | Sopelana, Bizkaia (SPAIN) | NO | Spanish, English, <br> Basque | University | Spanish | Spanish | 8 | 1 | 2 |
| 22 | Female | 24 | Basauri, Bizkaia (SPAIN) | NO | Spanish, English | University | Spanish | Spanish | 10 | 3 | 0 |
| 23 | Female | 26 | San Sebastián, Donostia (SPAIN) | YES, Germany (6 months) | Spanish, <br> German, <br> English | Graduate | Spanish | Spanish, <br> German, <br> English | 10 | 5 | 5 |


| $\mathbf{2 4}$ | Female | 20 | Bilbao, <br> Bizkaia <br> (SPAIN) | NO | Spanish, <br> English | University | Spanish | Spanish | 10 | 1 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 5}$ | Male | 26 | Getxo, <br> Bizkaia <br> (SPAIN) | YES, U.K. <br> (1 year) | Spanish, <br> English, <br> Basque | Graduate | Spanish | Spanish, <br> English | 10 | 6 | 3 |
| $\mathbf{2 6}$ | Male | 20 | Bilbao, <br> Bizkaia <br> (SPAIN) | NO | Spanish, <br> English | University | Spanish | Spanish | 9 | 3 | 0 |
| $\mathbf{2 7}$ | Female | 27 | Bilbao, <br> Bizkaia <br> (SPAIN) | YES, U.K. <br> $(8$ months) | Spanish, <br> English | Graduate | Spanish | Spanish, <br> English | 10 | 5 | 0 |
| $\mathbf{2 8}$ | Male | 25 | Barakaldo, <br> Bizkaia <br> (SPAIN) | NO | Spanish, <br> English | University | Spanish | Spanish | 10 | 2 | 0 |
| $\mathbf{2 9}$ | Male | 23 | Vitoria, Álava <br> (SPAIN) | NO | Spanish, <br> Basque, <br> English | University | Spanish | Spanish | 10 | 3 | 4 |
| $\mathbf{3 0}$ | Female | 22 | San Sebastián, <br> Donostia <br> (SPAIN) | NO | Spanish, <br> Basque, <br> English | University | Spanish | Spanish | 10 | 4 | 2 |


|  | تِ | 崦 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31 | Male | 26 | Vitoria, Álava (SPAIN) | NO | Spanish, Basque, English | Graduate | Basque, Spanish | Basque, Spanish | 10 | 9 | 5 |
| 32 | Male | 24 | Galdakao, Bizkaia (SPAIN) | YES, France (6 months) | Spanish, Basque, English, French | University | Basque, Spanish | Basque, Spanish French | 10 | 10 | $\begin{gathered} 6 \\ \text { (French) } \end{gathered}$ |
| 33 | Male | 25 | Getxo, Bizkaia (SPAIN) | NO | Spanish, Basque, English | University | Basque, Spanish | Spanish | 10 | 8 | 4 |
| 34 | Female | 25 | Galdakao, Bizkaia (SPAIN) | YES, Germany <br> (1 year) | Spanish, <br> Basque, <br> German, <br> English | University | Basque, Spanish | Basque, German | 10 | 10 | $\begin{gathered} 5 \\ \text { (German) } \end{gathered}$ |
| 35 | Female | 24 | Galdakao, Bizkaia (SPAIN) | NO | Spanish, Basque, English | University | Basque, Spanish | Basque | 10 | 10 | 5 |
| 36 | Female | 19 | Durango, Bizkaia (SPAIN) | NO | Spanish, <br> Basque, <br> English | University | Basque | Basque | 7 | 10 | 3 |
| 37 | Female | 23 | Bilbao, Bizkaia (SPAIN) | NO | Spanish, Basque | University | Basque, Spanish | Spanish | 10 | 8 | 0 |


| 38 | Female | 26 | Galdakao, Bizkaia (SPAIN) | NO | Spanish, Basque, English | University | Basque, Spanish | Basque, Spanish | 10 | 10 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39 | Male | 22 | San Sebastián Donostia (SPAIN) | NO | Spanish, Basque | University | Basque | Basque | 9 | 8 | 0 |
| 40 | Female | 25 | Galdakao, Bizkaia (SPAIN) | NO | Spanish, Basque | University | Basque, Spanish | Spanish, English | 10 | 9 | 0 |
| 41 | Male | 24 | Arrigorriaga, Bizkaia (SPAIN) | NO | Spanish, Basque | University | Basque, Spanish | Spanish | 9 | 9 | 0 |
| 42 | Female | 28 | Bilbao, Bizkaia (SPAIN) | YES, U.K. <br> (1 year) | Spanish, Basque, English | Graduate | Basque | Basque, Spanish | 10 | 10 | 6 <br> (English) |
| 43 | Female | 25 | Galdakao, Bizkaia (SPAIN) | NO | Spanish, <br> Basque | University | Basque, Spanish | Basque | 10 | 10 | 0 |
| 44 | Male | 21 | Galdakao, <br> Bizkaia <br> (SPAIN) | NO | Spanish, Basque, English | University | Basque | Basque, Spanish | 7 | 10 | 2 |
| 45 | Male | 27 | Galdakao, Bizkaia (SPAIN) | NO | Spanish, Basque | Graduate | Basque | Basque | 8 | 10 | $\begin{gathered} 1 \\ \text { (English) } \end{gathered}$ |

### 9.3 Appendix C. Participant Language Background and BLP Scores (Experiments in Chapters 4-5)

Participant Language Background and BLP Scores (Experiment 2, chapter 4):

|  | تِ | 荛 |  | ت |  |  |  | 苛 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Male | 25 | Galdakao, Bizkaia (SPAIN) | YES, France <br> (1 year) | Graduate | Basque, Spanish | English | YES | Very freq. | + | -6.35 | Basque |
| 2 | Male | 24 | Galdakao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | YES | Freq. | + | -10.07 | Basque |
| 3 | Female | 26 | Galdakao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | YES | Freq. | + | 4.72 | Spanish |
| 4 | Female | 25 | Galdakao, Bizkaia (SPAIN) | YES, Germany <br> (1 year) | University | Basque, Spanish | German | YES | Freq. | + | 6.68 | Spanish |
| 5 | Male | 27 | Mungia, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | YES | Freq. | + | -12.5 | Basque |
| 6 | Male | 25 | Galdakao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | YES | Freq. | + | -14.34 | Basque |
| 7 | Male | 26 | Galdakao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | YES | Very freq. | + | 8.17 | Spanish |


| 8 | Female | 21 | Durango, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | YES | Very freq. | + | 12.27 | Spanish |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 | Female | 22 | Galdakao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | YES | Freq. | + | -5.26 | Basque |
| 10 | Female | 25 | Mungia, Bizkaia (SPAIN) | NO | Graduate | Basque, Spanish | N/A | YES | Freq. | + | -33.40 | Basque |
| 11 | Male | 25 | Galdakao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | YES | Freq. | + | -11.08 | Basque |
| 12 | Female | 25 | Bilbao, <br> Bizkaia <br> (SPAIN) | NO | University | Basque, Spanish | N/A | YES | Very freq. | + | 16.35 | Spanish |
| 13 | Female | 24 | Galdakao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | YES | Very freq. | + | 4.544 | Spanish |
| 14 | Female | 26 | Galdakao, <br> Bizkaia <br> (SPAIN) | NO | University | Basque, Spanish | English | YES | Freq. | + | 21.44 | Spanish |
| 15 | Female | 25 | Galdakao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | YES | Very freq. | + | -26.70 | Basque |

Participant Language Background and BLP Scores (Experiment 3, chapter 5):

|  | تِ | 范 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Male | 28 | Bilbao, Bizkaia (SPAIN) | Vitoria, Álava (SPAIN) | NO | Graduate | Basque, Spanish | English | -52.58 | Basque |
| 2 | Male | 28 | Bilbao, Bizkaia (SPAIN) | Galdakao, Bizkaia (SPAIN) | YES, France <br> (2 years) | Graduate | Basque, Spanish | English | -19.44 | Basque |
| 3 | Female | 27 | Bilbao, Bizkaia (SPAIN) | Arrigorriaga, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | -40.05 | Basque |
| 4 | Male | 28 | Durango, Bizkaia (SPAIN) | Galdakao, Bizkaia (SPAIN) | YES, U.K. <br> (3 months) | Graduate | Basque, Spanish | English | -6.35 | Basque |
| 5 | Female | 26 | Bilbao, Bizkaia (SPAIN) | Bilbao, Bizkaia (SPAIN) | NO | Graduate | Basque, Spanish | N/A | -26.70 | Basque |
| 6 | Female | 18 | Basauri, Bizkaia (SPAIN) | Basauri, Bizkaia (SPAIN) | NO | University | Spanish | Basque | 139.40 | Spanish |
| 7 | Male | 20 | Basauri, Bizkaia (SPAIN) | Basauri, Bizkaia (SPAIN) | NO | University | Spanish | Basque | 94.91 | Spanish |
| 8 | Male | 21 | Barakaldo, Bizkaia (SPAIN) | Basauri, Bizkaia (SPAIN) | NO | University | Spanish | English | 121.06 | Spanish |


| $\mathbf{9}$ | Female | 20 | Bilbao, <br> Bizkaia <br> (SPAIN) | Basauri, <br> Bizkaia <br> (SPAIN) | NO | University | Basque, <br> Spanish | English | 56.67 | Spanish |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1 0}$ | Male | 28 | Galdakao, <br> Bizkaia <br> (SPAIN) | Galdaka, <br> Bizkaia <br> (SPAIN) | NO | Graduate | Basque, <br> Spanish | English | -33.24 | Basque |
| $\mathbf{1 1}$ | Male | 21 | Zaratamo, <br> Bizkaia <br> (SPAIN) | Basauri, <br> Bizkaia <br> (SPAIN) | NO | University | Spanish | English | 140.76 | Spanish |
| $\mathbf{1 2}$ | Female | 21 | Basauri, <br> Bizkaia <br> (SPAIN) | Bilbao, <br> Bizkaia <br> (SPAIN) | YES, U.K. <br> $(1$ month) | University | Basque, <br> Spanish | English | 67.67 | Spanish |
| $\mathbf{1 3}$ | Male | 23 | Bilbao, <br> Bizkaia <br> (SPAIN) | Portugalete, <br> Bizkaia <br> (SPAIN) | YES, U.K. <br> $(3$ months) | University | Spanish | English | 109.89 | Spanish |
| $\mathbf{1 4}$ | Female | 29 | Barakaldo, <br> Bizkaia <br> (SPAIN) | Galdakao, <br> Bizkaia <br> (SPAIN) | NO | Graduate | Basque, <br> Spanish | English | -10.07 | Spanish |
| $\mathbf{1 5}$ | Female | 26 | Bilbao, <br> Bizkaia <br> (SPAIN) | Bilbao, <br> Bizkaia <br> (SPAIN) | NO | University | Basque, <br> Spanish | English | -36.06 | Basque |
| $\mathbf{1 6}$ | Female | 27 | Igorre, <br> Bizkaia <br> (SPAIN) | Igorre, <br> Bizkaia <br> (SPAIN) | NO | University | Basque, <br> Spanish | English | -27.42 | Basque |
| $\mathbf{1 7}$ | Female | 23 | Bilbao, <br> Bizkaia <br> (SPAIN) | Vitoria, <br> Álava <br> (SPAIN) | YES, U.K. | Graduate | Basque, <br> (1 year) | English | 43.14 | Spanish |
| $\mathbf{1 8}$ | Female | 19 | Bilbao, <br> Bizkaia <br> (SPAIN) | Arrigorriaga, <br> Bizkaia <br> (SPAIN) | NO | University | Spanish | English | 84.83 | Spanish |
| $\mathbf{1 9}$ | Female | 20 | Bilbao, <br> Bizkaia <br> (SPAIN) | Bilbao, <br> Bizkaia <br> (SPAIN) | NO | University | Basque, <br> Spanish | English | 43.14 | Spanish |


| 20 | Female | 18 | Barakaldo, Bizkaia (SPAIN) | Basauri, Bizkaia (SPAIN) | NO | University | Basque, Spanish | French | 30.97 | Spanish |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | Female | 22 | Amurrio, Bizkaia (SPAIN) | Durango, Bizkaia (SPAIN) | YES, <br> Sweden (10 <br> months) | University | Basque, Spanish | English | -15.44 | Basque |
| 22 | Female | 27 | Barakaldo, Bizkaia (SPAIN) | Galdakao, Bizkaia (SPAIN) | NO | Graduate | Basque, Spanish | English | -26.42 | Basque |
| 23 | Male | 27 | Palencia, Palencia (SPAIN) | Palencia, Palencia (SPAIN) | NO | University | Spanish | English | 178.26 | Spanish |
| 24 | Male | 27 | Burgos, Burgos (SPAIN) | Galdakao, Bizkaia (SPAIN) | YES, U.S. <br> (2 years) | Graduate | Spanish | English | 132.13 | Spanish |
| 25 | Female | 32 | Bilbao, Bizkaia (SPAIN) | Bilbao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | -35.07 | Basque |
| 26 | Female | 28 | Barakaldo, Bizkaia (SPAIN) | Mungia, Bizkaia (SPAIN) | NO | Graduate | Basque, Spanish | English | 18.53 | Spanish |
| 27 | Female | 27 | Bilbao, <br> Bizkaia (SPAIN) | Bilbao, Bizkaia (SPAIN) | YES U.S. <br> (18 months) | Graduate | Basque, Spanish | English | 41.78 | Spanish |
| 28 | Female | 29 | Bilbao, Bizkaia (SPAIN) | Bilbao, Bizkaia (SPAIN) | YES, U.K <br> (1 year) | Graduate | Basque, Spanish | English | -41.14 | Basque |
| 29 | Male | 28 | Barakaldo, Bizkaia (SPAIN) | Pamplona, Navarra (SPAIN) | NO | University | Basque, Spanish | English | -31.06 | Basque |


| 30 | Male | 26 | Barakaldo, Bizkaia (SPAIN) | Bilbao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | -4.72 | Basque |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31 | Female | 28 | Bilbao, Bizkaia (SPAIN) | Galdakao, Bizkaia (SPAIN) | YES, Germany (1 year) | University | Basque, Spanish | German | -15.80 | Basque |
| 32 | Male | 26 | Basauri, Bizkaia (SPAIN) | Basauri, Bizkaia (SPAIN) | NO | University | Spanish | English | 79.47 | Spanish |
| 33 | Female | 21 | Barakaldo, Bizkaia (SPAIN) | Bilbao, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | 34.88 | Spanish |
| 34 | Male | 20 | Basauri, Bizkaia (SPAIN) | Basauri, Bizkaia (SPAIN) | NO | University | Spanish | English | 124.05 | Spanish |
| 35 | Female | 21 | Basauri, Bizkaia (SPAIN) | Basauri, Bizkaia (SPAIN) | NO | University | Spanish | Basque | 144.39 | Spanish |
| 36 | Male | 21 | Bilbao, Bizkaia (SPAIN) | Bilbao, Bizkaia (SPAIN) | NO | University | Spanish | English | 76.11 | Spanish |
| 37 | Male | 32 | Bilbao, Bizkaia (SPAIN) | Bilbao, Bizkaia (SPAIN) | NO | University | Spanish | English | 130.32 | Spanish |
| 38 | Female | 27 | Mungia, Bizkaia (SPAIN) | Durango, Bizkaia (SPAIN) | NO | Graduate | Spanish | N/A | 139.85 | Spanish |
| 39 | Female | 28 | Barakaldo, Bizkaia (SPAIN) | Santurtzi, Bizkaia (SPAIN) | YES, U.K. <br> (7 months) | University | Basque, Spanish | English | -29.34 | Basque |
| 40 | Male | 30 | Bilbao, <br> Bizkaia <br> (SPAIN) | Mungia, Bizkaia (SPAIN) | NO | University | Basque, Spanish | English | -25.44 | Basque |

## TRAINING

A continuación, comenzaremos con el cuestionario lingüístico en el que se te pedirá que juzgues oraciones basándote en tu intuición y de acuerdo a una escala del 1 al 7, donde 1 corresponde a "esta oración es completamente inaceptable, no me gusta, o no me parece que se pueda decir" y 7 corresponde a "esta oración es completamente aceptable o me gusta".

Comenzaremos con una breve explicación de la escala que utilizaremos para valorar cada oración:

1 = Esta oración no es algo que yo diría jamás/ No me gusta nada esta oración/ Esta oración no es natural/ Nunca usaría esta oración en una conversación

2 = Esta oración es algo que yo muy raramente diría/ No me gusta esta oración/ Probablemente nunca usaría esta oración en una conversación

3 = No estoy seguro/ Ni me gusta, ni me disgusta esta oración
4 = He podido decir algo como está oración en algún momento/ He escuchado a otra gente decir algo así/ Está oración es rara pero no suena del todo mal

5 = Me gusta esta oración y parece algo bastante natural
6 = Me gusta esta oración, es bastante natural y es algo que yo digo o diría
7 = Digo oraciones como ésta constantemente/ Me gusta mucho esta oración/ Esta oración es muy natural/ Utilizo oraciones como ésta en conversaciones
¡Ojo! Al valorar las oraciones, hazlo únicamente usando tu intuición, es decir, de acuerdo a si crees que la oración es algo que dices a menudo o que crees que podrías decir o, por el contrario, algo que no dirías nunca. No pienses demasiado en la reglas o restricciones gramaticales que te enseñaron en la escuela, ya que lo único que nos interesa es saber cómo hablas tú en tu día a día.
¡Comencemos!
Por ejemplo, siendo totalmente categóricos, la oración (a) de abajo recibiría un 1 (usando la escala del 1 al 7) por no ser aceptable o natural.
a. Javier compra camiseta baratos en el supermercado.

[^26]2
3
4
5
6
Muy Aceptable
7

Por el contrario, la oración (b) de abajo recibiría un 7 por ser muy aceptable y totalmente natural.
b. Javier compra camisetas baratas en el supermercado.


Por otra parte, la escala que estamos utilizando también permite reflejar cualquier otro juicio, además de "aceptable" o "no aceptable" como, por ejemplo, "no estoy seguro", "aceptable, pero suena raro" 0 "no es algo que yo diría, pero creo que lo he oído alguna vez".

Por ejemplo, la oración (c) de abajo es una oración totalmente aceptable para algunos hablantes del español, pero no para otros.
c. Yo la di un beso a María.

Si esta oración no es una oración que tú puedas decir, pero no te suena del todo mal o no te parece totalmente inaceptable, la oración recibiría un 4.

| No aceptable | 2 | 3 | 4 | 5 | 6 | Muy Aceptable |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0 |  | 0 |  | 7 |  |
|  |  |  |  |  |  |  |

Si, por el contrario, no estás seguro de si esta oración te parece natural, o ni te gusta ni te disgusta, dicha oración recibiría un 3.

| No aceptable |  |  |  | Muy aceptable |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Por otro lado, si la oración te parece inaceptable la oración recibiría un 2 un 1. Dependiendo, de cuán inaceptable te parezca.

## SAMPLE PRACTICE

¡Ahora te toca a ti! Evalúa las siguientes oraciones de práctica de acuerdo con las instrucciones de arriba y usando la escala del 1 al 7 que se te proporciona.

Nosotros te guiaremos mientras juzgas estas oraciones de práctica. De esta manera te ayudaremos a adquirir la confianza necesaria para que puedas juzgar las oraciones que se te presentarán en el experimento por ti mismo.

A María lo gusta las manzanas asadas.

No aceptable
12

3
4
5
Muy aceptable
7
¡EXCELENTE! Tu respuesta fue un 1 o un 2. Esto quiere decir que la oración te parece inaceptable y no te suena bien.

Como has podido observar esta oración contiene un error gramatical en la concordancia de número entre el sujeto "las manzanas asadas" y el verbo "gustar'. Además, la oración también contiene un error en la concordancia del pronombre de objeto. Por estas razones la oración que acabas de leer no es una oración aceptable en el español.

IF PARTICIPANT GAVE AN UNUSUAL RATING OR DID NOT PAY ATTENTION, THE FOLLOWING MESSAGE WAS DISPLAYED FOR EACH PRACTICE SENTENCE AND HE/SHE WAS ASKED TO RATE IT AGAIN:

VAYA, PARECE QUE NO HAS PRESTADO DEMASIADA ATENCIÓN....iPRUEBA OTRA VEZ!
A María lo gusta las manzanas asadas.


Vamos con la siguiente oración...

## Clara le regalará un bonito reloj de oro a su marido.

No aceptable
$\begin{array}{lll}2 & 3 & 4 \\ 0 & 0 & \end{array}$

Muy aceptable
7
¿EXCELENTE! Tu respuesta fue entre un 5 y un 7. Si tu puntuación fue un 5 esto quiere decir que la oración te parece "bastante aceptable". Si fue un 6 o un 7, quiere decir que la oración te parece "aceptable" o "muy aceptable". Esto tiene mucho sentido ya que la oración que te acabamos de presentar es totalmente aceptable y natural en el español.

Vamos con otra oración...

Juan me ha dicho de que vendrá mañana por la tarde.

No aceptable
$1 \quad 2$

3
4
5
Muy aceptable
7

Esta oración es posible en algunos dialectos del español, pero no en otros, por eso:
Es posible que esta oración no te haya parecido para nada aceptable o no crees que la usarías jamás y por eso la habrás valorado con un 10 un 2.

También es muy posible, que la oración te haya parecido totalmente aceptable, en cuyo caso la habrás valorado entre un 5 y un 7.

Por el contrario, si has tenido dudas con respecto a la aceptabilidad de esta oración, o ni te gusta ni te disgusta, la habrás valorado con un 3.

Por último, es posible que esta oración no te suene demasiado bien, pero tampoco te suene totalmente mal, en ese caso la habrás valorado con un 4.

## words

English stimuli (Negative Quantifiers):
(1) What did John say? Nothing
(2) Who did Peter see at the concert? No one
(3) What did your mother buy at the store? Nothing
(4) Who passed the test? No one
(5) How often do you make dinner? Never
(6) When did the teacher forget the exams? Never
(7) What did John say? Almost nothing
(8) Who did Peter see at the concert? Almost no one
(9) What did your mother buy at the store? Almost nothing
(10) Who passed the test? Almost no one
(11) How often do you make dinner? Almost never
(12) When did the teacher forget the exams? Almost never
(13) No one runs 5 miles in 2 minutes
(14) Nothing cleans the dirt in my shoes
(15) No one cleans the office at night
(16) Nothing lasts forever
(17) I never wrote a poetry book
(18) The doctors never lie to their patients
(19) Did you see nothing?
(20) Did no one arrive at the party?
(21) Did your mother buy nothing at the store?
(22) Did no one finish the homework?
(23) Do you never buy clothes?
(24) If you see nothing, let me know
(25) The police asked John if no one had stolen his wallet
(26) Please let us know if the employees sell nothing at the store
(27) My mother asked if no one had washed the clothes
(28) If you never visit Bilbao, don't get in touch with my sister
(29) John did nothing all day
(30) Peter saw no one at the concert
(31) Those angry kids said nothing during dinner
(32) The boss fired no one yesterday
(33) Your brother ate nothing at the restaurant
(34) My mother gave flowers to no one yesterday

English stimuli (Negative Polarity Items):
(1) What did John say? Anything
(2) Who did Peter see at the concert? Anyone
(3) What did your mother buy at the store? Anything
(4) Who passed the test? Anyone
(5) How often do you make dinner? Ever
(6) When did the teacher forget the exams? Ever
(7) What did John say? Almost anything
(8) Who did Peter see at the concert? Almost anyone
(9) What did your mother buy at the store? Almost anything
(10) Who passed the test? Almost anyone
(11) How often do you make dinner? Almost ever
(12) When did the teacher forget the exams? Almost ever
(13) Anyone runs 5 miles in 2 minutes
(14) Anything cleans the dirt in my shoes
(15) Anyone cleans the office at night
(16) Anything lasts forever
(17) I ever wrote a poetry book
(18) The doctors ever lie to their patients
(19) Did you see anything?
(20) Did anyone arrive at the party?
(21) Did your mother buy anything at the store?
(22) Did anyone finish the homework?
(23) Do you ever buy clothes?
(24) If you see anything, let me know
(25) The police asked John if anyone had stolen his wallet
(26) Please let us know if the employees sell anything at the store
(27) My mother asked if anyone had washed the clothes
(28) If you ever visit Bilbao, don't get in touch with my sister
(29) John did anything all day
(30) Peter saw anyone at the concert
(31) Those angry kids said anything during dinner
(32) The boss fired anyone yesterday
(33) Your brother ate anything at the restaurant
(34) My mother gave flowers to anyone yesterday

Spanish stimuli (n-words):
(1) ¿Qué dijo Juan? Nada
(2) ¿A quién vio Juan en el concierto? A nadie
(3) ¿Qué compró tu madre en la tienda? Nada
(4) ¿Quién aprobó el examen? Nadie
(5) ¿Con qué frecuencia haces la cena? Nunca
(6) ¿Cuándo se olvida los exámenes el profesor? Nunca
(7) ¿Qué dijo Juan? Casi nada
(8) ¿A quién vio Juan en el concierto? A casi nadie
(9) ¿Qué compró tu madre en la tienda? Casi nada
(10) ¿Quién aprobó el examen? Casi nadie
(11) ¿Con qué frecuencia haces la cena? Casi nunca
(12) ¿Cuándo se olvida los exámenes el profesor? Casi nunca
(13) Nadie corre 5 km en 2 minutos
(14) Nada limpia la suciedad de mis zapatos
(15) Nadie limpia la oficina por la noche
(16) Nada es para siempre
(17) Nunca he escrito un libro sobre poesía
(18) Los doctores nunca mienten a sus pacientes
(19) ¿Viste nada?
(20) ¿Nadie llegó a la fiesta?
(21) ¿Compró tu madre nada en la tienda?
(22) ¿Nadie acabó los deberes?
(23) ¿Nunca has comprado ropa?
(24) Si ves nada, avísame
(25) La policía le preguntó a Juan si nadie le había robado la cartera
(26) Por favor haznos saber si los empleados venden nada en la tienda
(27) Mi madre preguntó si nadie había lavado la ropa
(28) Mi hermana me pregunto si nunca habías visitado Bilbao
(29) Juan hizo nada todo el día
(30) Pedro vio a nadie en el concierto
(31) Los enfurruñados niños dijeron nada durante la cena
(32) El jefe despidió a nadie ayer
(33) Tu hermano comió nada en el restaurante
(34) Mi madre dio flores a nadie ayer

Basque stimuli (Negative Polarity Items):
(1) Zer esan zuen Jonek? Ezer
(2) Nor ikusi zuen Jonek kontzertuan? Inor
(3) Zer erosi zuen zure amak dendan? Ezer
(4) Nork gainditu zuen azterketa? Inork
(5) Noiz prestatzen duzu afaria? Inoiz
(6) Noiz ahazten ditu azterketak irakasleak? Inoiz
(7) Zer esan zuen Jonek? Ezer
(8) Nor ikusi zuen Jonek kontzertuan? Ia inor
(9) Zer erosi zuen zure amak dendan? Ia ezer
(10) Nork gainditu zuen azterketa? Ia inork
(11) Noiz prestatzen duzu afaria? Ia inoiz
(12) Noiz ahazten ditu azterketak irakasleak? Ia inoiz
(13) Inork egiten ditu 5km korrika 2 minututan
(14) Ezerk garbitzen du nire zapatuen zikinkeria
(15) Inork garbitzen du bulegoa gauean
(16) Ezer da betiko
(17) Inoiz idatzi dut poesiari buruzko liburu bat
(18) Los doctores nunca mienten a sus pacientes
(19) Ezer kusi al zenuen?
(20) Iritsi al zen inor festara?
(21) Erosi al zuen ezer zure amak dendan?
(22) Inork amaitu al zituen etxeko lanak?
(23) Inoiz erosi al duzu arropa?
(24) Ezer behar baduzu, abisa nazazu
(25) Poliziak galdetu zion Joni ea inork diru-zorroa lapurtu bazion
(26) Esaiguzu mesedez langileek ezer saltzen baldin badute.
(27) Nire amak galdetu zuen ea inork garbitu bazuen arropa
(28) Inoiz Bilbon izaten bazara, ez zaitez nire arrebarekin harremanetan jarri
(29) Jonek ezer egin zuen egun osoan
(30) Pedrok inor ikusi zuen kontzertuan
(31) Haserretutako umeek ezer esan zuten afarian
(32) Nagusiak inor kanporatu zuen atzo
(33) Zure anaiak jan zuen ezer jatetxean
(34) Nire amak inori loreak eman zizkion atzo

English distractors:
(1) I bought a purse at the mall
(2) I bought a purses at the mall
(3) Luis has a very old phone
(4) Luis had a very old phones
(5) Carl and Mary sold a broken television to a couple
(6) Carl and Mary sold a broken televisions to a couple
(7) Peter has a messy house
(8) Peter has a messy houses
(9) Can you lend me a book about physics?
(10) Can you lend me a books about physics?
(11) We saw a group of ducks in the park
(12) We saw a groups of ducks in the park
(13) Do you want to take the train with me?
(14) Do you want to take the trains with me?
(15) Juan ate a sandwich in the afternoon
(16) Juan ate a sandwiches in the afternoon
(17) We bought a rotten orange at the farmers market
(18) We brought a rotten oranges at the farmers market
(19) Your brothers need to plan a trip to Vegas as soon as possible
(20) Your brothers need to plan a trips to Vegas as soon as possible
(21) Ariane left a chair in her office for students to sit on
(22) Ariane left a chairs in her office for students to sit on
(23) I asked if Rodrigo bought a coat
(24) I asked if Rodrigo bought a coats
(25) I passed an English speaking test
(26) I passed an English speaking tests
(27) My mother sold an old book of poetry
(28) My mother sold an old books of poetry
(29) Albert fished an old boot at the lake
(30) Albert fished an old boots at the lake

Spanish distractors:
(1) Compré un bolso en el centro comercial
(2) Compré un bolsos en el centro comercial
(3) Luis tiene un móvil muy viejo
(4) Luis tiene un móviles muy viejos
(5) Carlos y María vendieron una televisión rota a una pareja
(6) Carlos y María vendieron una televisiones rotas a una pareja
(7) Pedro tiene una casa desordenada
(8) Pedro tiene una casas desordenadas
(9) ¿Me puedes prestar el libro de física?
(10) ¿Me puedes prestar el libros de física?
(11) Vimos a un grupo de patos en el parque
(12) Vimos a un grupos de patos en el parque
(13) ¿Quieres coger el tren conmigo?
(14) ¿Quieres coger el trenes conmigo?
(15) Juan comió un sándwich por la tarde

Basque distractors:
(1) Poltsa bat erosi nuen merkatal zentruan
(2) Poltsak erosi nuen merkatal zentruan
(3) Luisek mugikor zahar bat dauka
(4) Luisek mugikor zaharrak dauka
(5) Karlos eta Mariak telebista zahar bat saldu zioten bikoteari
(6) Karlos eta Mariak telebista zaharrak saldu zioten bikoteari
(7) Peiok etxe desordenatua dauka
(8) Peiok etxe desordenatuak dauka
(9) Fisikari buruzko liburu bat utziko zenidake?
(10) Fisikari buruzko liburuak utziko zenidake?
(11) Ahate multzoa ikusi genuen parkean
(12) Ahate multzoak ikusi genuen parkean
(13) Gure duzu nirekin trena hartzea?
(14) Gure duzu nirekin trenak hartzea?
(15) Jonek ogitartekoa jan zuen arratsaldean

### 9.6 Appendix F. Stimuli and Distractors for Experiment 2: A Code-switching Analysis of Spanish N-words in Preverbal Position

Spanish stimuli:
(1) No vino nadie a casa
(2) No apareció nadie en la reunión de ayer
(3) Yo no he estado nunca en París
(4) Vino nadie a casa
(5) Apareció nadie en la reunión de ayer
(6) Yo he estado nunca en París
(7) Nadie vino a casa
(8) Nadie apareció en la reunión de ayer
(9) Nunca he estado en París
(10) Nadie no vino a casa
(11) Nadie no apareció en la reunión de ayer
(12) Nunca no he estado en París

Basque stimuli:
(1) Ez zen inor etorri etxera
(2) Ez zen inor agertu atzoko batzarrean
(3) Ez naiz inoiz Parisen egon
(4) Etorri zen inor etxera
(5) Agertu zen inor atzoko batzarrean
(6) Egon naiz inoiz Parisen
(7) Inor etorri zen etxera
(8) Inor agertu zen atzoko batzarrean
(9) Inoiz egon naiz Parisen
(10) Inor ez zen etorri etxera
(11) Inor ez zen agertu atzoko batzarrean
(12) Inoiz ez naiz Parisen egon

Basque/Spanish code-switching stimuli:
(1) No vino inor a casa
(2) No apareció inor en la reunión de ayer
(3) Yo no he estado inoiz en París
(4) No llegó inor tarde a clase
(5) No nos faltó nunca comida
(6) Vino inor a casa
(7) Apareció inor en la reunión de ayer
(8) He estado inoiz en París
(9) Llegó inor tarde a clase
(10) Nos faltó inoiz comida
(11) Ez zen nadie etorri etxera
(12) Ez zen nadie agertu atzoko batzarrean
(13) Ez naiz nunca Parisen egon
(14) Ez zen nadie berandu iritsi klasera
(15) Ez zitzaigun nunca janaririk faltatu
(16) Etorri zen nadie etxera
(17) Agertu zen nadie atzoko batzarrean
(18) Egon naiz nunca Parisen
(19) Iritsi zen nadie berandu klasera
(20) Faltatu zitzaigun nunca janaririk
(21) Inor vino a casa
(22) Inor apareció en la reunión de ayer
(23) Inoiz he estado en París
(24) Inor llegó tarde a clase
(25) Inoiz nos faltó comida
(26) Inor no vino a casa
(27) Inor no apareció en la reunión de propietarios
(28) Inoiz no he estado en París
(29) Inor no llegó tarde a clase
(30) Inoiz no nos faltó comida
(31) Nadie zen etorri etxera
(32) Nadie zen agertu atzoko batzarrean
(33) Nunca naiz Parisen egon
(34) Nadie zen iritsi berandu klasera
(35) Nunca zitzaigun janaririk faltatu
(36) Nadie etorri zen etxera
(37) Nadie agertu zen atzoko batzarrean
(38) Nunca egon naiz Parisen
(39) Nadie iritsi zen berandu klasera
(40) Nunca faltatu zitzaigun janaririk
(41) Nadie ez zen etorri etxera
(42) Nadie ez zen agertu atzoko batzarrean
(43) Nunca ez naiz Parisen egon
(44) Nadie ez zen iritsi berandu klasera
(45) Nunca ez zitzaigun janaririk faltatu

Basque/Spanish code-switching distractors:
(1) El batzar de la empresa es mañana a las 11
(2) Tenemos que organizar la batzar cuanto antes
(3) Mikel no vino al batzarra de ayer
(4) Al final no se decidió nada en la batzarra de ayer
(5) ¿Me dejas el atsingi?
(6) Alguien me ha robado la atsingi
(7) No encuentro el atsingia que tenía en mi estuche
(8) ¿Me prestas la atsingia para el examen de esta tarde?
(9) Hemos visto un bikote de patos en el parque
(10) Había una bikote de zebras en el zoo
(11) El bikotea de casa el año que viene
(12) La bikotea que vimos ayer se va a separar
(13) ¿Me acompañas al geltoki? Etxera noa ya
(14) Tengo que ir ya a la geltoki. Trena galduko dut
(15) El geltokia del tren queda a dos manzanas
(16) ¿Sabes dónde queda la geltokia del tren?
(17) He aprobado el aurkezpen de inglés
(18) Mañana tengo la aurkezpen del proyecto final.
(19) ¿Has estudiado para el aurpezpena que tenemos la semana que viene?
(20) A Ane no le ha salido nada bien la aurkezpena de esta mañana
(21) ¿Me dejas el liburu de ingurune?
(22) Se me ha olvidado la liburu de francés en casa
(23) El liburua que tenemos que leer para lengua castellana es muy malo
(24) No pienso leerme la liburua que comentó ayer Miren
(25) ¿Me pasas el zorroskilo?
(26) No encuentro la zorroskilo
(27) ¿Tienes el zorroskiloa de Ander?
(28) La zorroskiloa que me has dejado no funciona
(29) He sacado buena nota en el lan de economía
(30) He sufrido con la lan de literatura
(31) ¿Has acabado ya el lana para la clase de inglés?
(32) No quiero sacar mala nota en la lana en grupo
(33) ¿Es hora ya de subir(ir) al jantoki?
(34) ¿Cuánta gente se queda a comer en la jantoki?
(35) A los estudiantes (alumnos) no les gusta la comida del jantokia
(36) Hoy no me quedo a comer en la jantokia
(37) ¿Jugamos al fútbol en el jolastoki?
(38) Tengo un trabajo que terminar durante la jolastoki
(39) No he traido nada para comer en el jolastokia
(40) ¿Repasamos para el examen en(durante) la jolastokia?
(41) Tengo ya el gona para dantzari eguna
(42) Me he comprado la gona que me gustaba
(43) ¿Tienes ya el sarrera para el museo?
(44) No sé dónde está la sarrera del edificio
(45) Hay un armiarma en el techo del baño
(46) No dejes que entre una armiarma en el saco de dormir
(47) He comprado el kipula para la tortilla
(48) Me lloran los ojos por haber cortado la kipula
(49) Es el aukera de tu vida, aprobetxa ezazu
(50) No dejes pasar la aukera que te han ofrecido
(51) ¿Me prestas el makila para Santa Agueda?
(52) Hay gente que usa la makila para ir al monte
(53) Los niños de preescolar han plantado un arbola
(54) Mi abuelo ha plantado una arbola en el jardín
(55) No he estudiado nada para el azterketa de mañana
(56) La azterketa de hoy ha sido súper difícil
(57) No entiendo el ariketa de la página 34
(58) La ariketa final del examen ha sido brutal
(59) Estáis haciendo un zarata horrible
(60) No puedo dormir con la zarata de la calle
(61) No he comido mucho $y$ he perdido el konorte en clase
(62) A veces cuando hace calor mi amama pierde la konorte
(63) Ane perdió el konortea en la montaña rusa
(64) El piloto perdió la konortea y el avión casi se estrella
(65) El alkandora que te compraste es horrible
(66) La alkandora que te regalé te sienta muy bien
(67) ¿Has comprado los arrautzak que te pedí?
(68) Ayer tenía mucha hambre y me comí todas las arrautzak
(69) La policía está siguiendo los aztarnak del ladrón
(70) La policía está siguiendo las aztarnak del ladrón

### 9.7 Appendix G. Stimuli and Distractors for Experiment 3: Licensing N-words across

## Domains

Spanish stimuli Acceptability Judgment Task:
(1) Pedro no vendió nada en su tienda
(2) El profesor de arquitectura no dibujó nada en la pizarra
(3) Los agentes de policía no detuvieron a nadie aquella tarde
(4) El agricultor no plantó ninguna calabaza en su huerta
(5) Nadie vio el documental sobre elefantes
(6) Ningún vecino asistió a la reunión de propietarios
(7) Nadie rompió las tuberías del baño
(8) Nadie enterró al muerto en el funeral
(9) Mi madre no dijo que Pedro había vendido nada en su tienda
(10) El estudiante no dijo que el profesor de arquitectura había dibujado nada en la pizarra
(11) El juez no dijo que la policía había detenido a nadie aquella tarde
(12) El empresario no dijo que el agricultor había plantado ninguna calabaza en su huerta
(13) Mi familia no dijo que nadie había visto el documental sobre elefantes
(14) El administrador no dijo que ningún vecino había asistido a la reunión de propietarios
(15) Los vecinos no dijeron que nadie había roto las tuberías del baño
(16) La viuda no dijo que nadie había enterrado al muerto en el funeral
(17) Mi madre no cree que Pedro vendiera nada en su tienda
(18) El estudiante no cree que el profesor de arquitectura haya dibujado nada en la pizarra
(19) El juez no pensaba que los agentes de policía hubieran detenido a nadie aquella tarde
(20) El empresario no cree que el agricultor haya plantado ninguna calabaza en su huerta
(21) Mi familia no cree que nadie haya visto el documental sobre elefantes
(22) El propietario del $2^{\circ} \mathrm{B}$ no cree que ningún vecino asistiera a la reunión de propietarios
(23) Los vecinos no piensan que nadie rompiera las tuberías del baño
(24) La viuda no cree que nadie haya enterrado al muerto en el funeral
(25) Mi madre duda que Pedro vendiera nada en su tienda
(26) El estudiante niega que el profesor de arquitectura dibujara nada en la pizarra
(27) El juez dudaba que los agentes de policía detuvieran a nadie aquella tarde
(28) El empresario niega que el agricultor haya plantado ninguna calabaza en su huerta
(29) Mi familia duda que nadie viera el documental sobre elefantes
(30) El propietario del $2^{\circ} \mathrm{B}$ niega que ningún vecino haya asistido a la reunión de propietarios
(31) Los vecinos dudan que nadie haya roto las tuberías del baño
(32) La viuda niega que nadie hubiera enterrado al muerto en el funeral
(33) Pedro no pudo vender nada en su tienda
(34) El profesor de arquitectura no quiso dibujar nada en la pizarra
(35) Los agentes de policía no pudieron detener a nadie aquella tarde
(36) El agricultor no quiso plantar ninguna calabaza en su huerta
(37) Mi familia no vio la televisión mientras "La 2" emitía ningún documental sobre elefantes
(38) El propietario del $2^{\circ} \mathrm{B}$ no asistía a las reuniones de propietarios cuando las dirigía ningún administrador
(39) Los vecinos no demandaron a los obreros a pesar de que habían roto ninguna tubería del baño
(40) La viuda no enterró al muerto cuando estaba presente ningún familiar
(41) Mi familia no vio la televisión mientras "La 2" emitiera ningún documental sobre elefantes
(42) El propietario del $2^{\circ} \mathrm{B}$ no asistirá a las reuniones de propietarios cuando las dirija ningún administrador
(43) Los vecinos no demandaron a los obreros a pesar de que hubieran roto ninguna tubería del baño
(44) La viuda no enterrará al muerto cuando esté presente ningún familiar
(45) Mi madre no cree que el rumor de que Pedro vende nada en su tienda sea cierto
(46) El estudiante no cree que el hecho de que el profesor está dibujando nada en la pizarra sea perjudicial para su aprendizaje
(47) El juez no cree que el hecho de que la policía había detenido a nadie esa tarde sea relevante para el caso
(48) El empresario no cree que el rumor de que el agricultor está plantando nada durante este invierno sea cierto
(49) Mi madre no cree que el rumor de que Pedro haya vendido nada en su tienda sea cierto
(50) El estudiante no piensa que el hecho de que el profesor de arquitectura dibujara nada en la pizarra sea perjudicial para su aprendizaje
(51) El juez no cree que el hecho de que la policía detuviera a nadie ese día sea relevante para el caso
(52) El empresario no piensa que el rumor de que el agricultor haya plantado nada durante este invierno sea cierto

Spanish distractors Acceptability Judgment Task:
(1) ¿Qué casi compra Juan antes de cambiar de idea?
(2) ¿Qué compra casi Juan antes de cambiar de idea?
(3) Juan compra casi el coche antes de cambiar de idea.
(4) ¿Qué había Juan nunca comprado hasta los dieciseis años?
(5) ¿Qué nunca había comprado Juan hasta los dieciseis años?
(6) ¿Qué había nunca comprado Juan hasta los dieciseis años?
(7) ¿Qué casi termina Angélica en menos de cuatro años?
(8) ¿Qué termina casi Angélica en menos de cuatro años?
(9) Angélica termina casi los estudios en menos de cuatro años
(10) ¿Qué había Angélica nunca terminado en menos de dos días?
(11) ¿Qué nunca había terminado Angélica en menos de dos días?
(12) ¿Qué había nunca terminado Angélica en menos de dos días?
(13) ¿Qué casi come Andrés antes de ver lo que era?
(14) ¿Qué come casi Andrés antes de ver lo que era?
(15) Andrés come casi el insecto antes de ver lo que era
(16) ¿Qué había Andrés nunca comido en toda su vida?
(17) ¿Qué nunca había comido Andrés en toda su vida?
(18) ¿Qué había nunca comido Andrés en toda su vida?
(19) ¿Qué casi rompe Paulina cuando tropieza?
(20) ¿Qué rompe casi Paulina cuando tropieza?
(21) Paulina rompe casi el vaso cuando tropieza
(22) ¿Qué había Paulina nunca roto en toda su vida?
(23) ¿Qué nunca había roto Paulina en toda su vida?
(24) ¿Qué había nunca roto Paulina en toda su vida?
(25) ¿Qué casi corta María porque estaba distraída?
(26) ¿Qué corta casi María porque estaba distraída?
(27) María corta casi el dedo porque estaba distraída
(28) ¿Qué había María nunca cortado porque era muy cuidadosa?
(29) ¿Qué nunca había cortado María porque era muy cuidadosa?
(30) ¿Qué había nunca cortado María porque era muy cuidadosa?
(31) ¿Qué ha escrito Olivia para su mamá?
(32) ¿Qué ha Olivia escrito para su mamá?
(33) ¿Qué había escrito Olivia para su mamá?
(34) ¿Qué había Olivia escrito para su mamá?
(35) Olivia ha nunca escrito un poema para su mamá
(36) Olivia había nunca escrito un poema para su mamá
(37) ¿Qué ha borrado Diana en la pizarra?
(38) ¿Qué ha Diana borrado en la pizarra?
(39) ¿Qué había borrado Diana en la pizarra?
(40) ¿Qué había Diana borrado en la pizarra?
(41) Diana ha jamás borrado la respuesta en la pizarra
(42) Diana había jamás borrado la respuesta en la pizarra
(43) ¿Qué ha quitado Carlos del sofá?
(44) ¿Qué ha Carlos quitado del sofá?
(45) ¿Qué había quitado Carlos del sofá?
(46) ¿Qué había Carlos quitado del sofá?
(47) Carlos ha nunca quitado el polvo del sofá
(48) Carlos había nunca quitado el polvo del sofá
(49) ¿Qué ha llenado Nina con agua?
(50) ¿Qué ha Nina llenado con agua?
(51) ¿Qué había llenado Nina con agua?
(52) ¿Qué había Nina llenado con agua?
(53) Nina ha jamás llenado la piscina con agua
(54) Nina había jamás llenado la piscina con agua
(55) ¿Qué ha apuntado Pablo en el cuaderno?
(56) ¿Qué ha Pablo apuntado en el cuaderno?
(57) ¿Qué había apuntado Pablo en el cuaderno?
(58) ¿Qué había Pablo apuntado en el cuaderno?
(59) Pablo ha nunca apuntado la fecha en el cuaderno
(60) Pablo había nunca apuntado la fecha en el cuaderno
(61) ¿Quién crees que leyó el letrero en la estación de tren?
(62) ¿Quién crees leyó el letrero en la estación de tren?
(63) ¿Qué crees que Alejandra leyó en la estación de tren?
(64) ¿Qué crees Alejandra leyó en la estación de tren?
(65) Creo que Alejandra leyó el letrero en la estación de tren
(66) Creo Alejandra leyó el letrero en la estación de tren
(67) ¿Quién te imaginas que dibujó una flor para su hija?
(68) ¿Quién te imaginas dibujó una flor para su hija?
(69) ¿Qué te imaginas que Janet dibujó para su hija?
(70) ¿Qué te imaginas Janet dibujó para su hija?
(71) Me imagino que Janet dibujó una flor para su hija
(72) Me imagino Janet dibujó una flor para su hija
(73) ¿Quién piensas que lavó la ropa en casa?
(74) ¿Quién piensas lavó la ropa en casa?
(75) ¿Qué piensas que Óscar lavó en casa?
(76) ¿Qué piensas Óscar lavó en casa?
(77) Pienso que Óscar lavó la ropa en casa
(78) Pienso Óscar lavó la ropa en casa
(79) ¿Quién crees que construyó una castilla en la arena?
(80) ¿Quién crees construyó una castilla en la arena?
(81) ¿Qué crees que Evelina construyó en la arena?
(82) ¿Qué crees Evelina construyó en la arena?
(83) Creo que Evelina construyó una castilla en la arena.
(84) Creo Evelina construyó una castilla en la arena
(85) ¿Quién te imaginas que limpió la mesa para la fiesta?
(86) ¿Quién te imaginas limpió la mesa para la fiesta?
(87) ¿Qué te imaginas que Sara limpió para la fiesta?
(88) ¿Qué te imaginas Sara limpió para la fiesta?
(89) Me imagino que Sara limpió la mesa para la fiesta
(90) Me imagino Sara limpió la mesa para la fiesta

Spanish stimuli Forced-choice Interpretation Task:
(1) Pedro no vendió nada en su tienda...
a) ...y por eso su hermano decidió ayudarlo para mejorar sus ventas
b) ...y por eso su hermano lo felicitó por sus exitosas ventas
c) Ambos contextos son posibles
(2) El profesor de arquitectura no dibujó nada en la pizarra...
a) ...y por eso los estudiantes no pudieron entender la complejidad de la estructura que estaban estudiando
b) ...y por eso los estudiantes pudieron entender perfectamente la complejidad de la estructura que estaban estudiando
c) Ambos contextos son posibles
(3) Los agentes de policía no detuvieron a nadie aquella tarde...
a) ...por eso todos los calabozos de la comisaría estaban vacíos
b) ...por eso todos los calabozos de la comisaría estaban llenos de prisioneros
c) Ambos contextos son posibles
(4) El agricultor no plantó ninguna calabaza en su huerta...
a) ... a consecuencia de esto, las fruterías locales no pudieron vender calabazas a sus clientes
b) ... a consecuencia de esto, las fruterías locales vendieron muchísimas calabazas a sus clientes
c) Ambos contextos son posibles...
(5) Nadie vio el documental sobre elefantes...
a) ... por eso la cadena televisiva tomó medidas al respecto y cambió la programación para mejorar sus niveles de audiencia
b) ... por eso la cadena televisiva siguió emitiendo este tipo de documentales y así convertirse en líder de audiencia
c) Ambos contextos son posibles...
(6) Ningún vecino asistió a la reunión de propietarios...
a) ... debido a esto, el administrador tuvo que posponer la reunión para la semana siguiente
b) ... debido al éxito de la reunión, el administrador decidió iniciar la renovación de la fachada del edificio
c) Ambos contextos son posibles..
(7) Nadie rompió las tuberías del baño...
a) ... seguramente la fuga de agua fue producida por la presión y el degradado estado de las tuberías
b) ... seguramente la fuga de agua fue producida por los albañiles que vinieron a reformar el baño
c) Ambos contextos son posibles...
(8) Nadie enterró al muerto en el funeral...
a) ... a consecuencia de esto, el cadáver quedó a la intemperie y la viuda demandó a la funeraria por negligencia
b) ... a consecuencia de esto, el muerto pudo descansar en paz y la viuda quedó satisfecha con los servicios proporcionados por la funeraria
c) Ambos contextos son posibles..
(9) Mi madre no dijo que Pedro había vendido nada en su tienda...
a) ... y por eso me sentí muy mal por Pedro y decidí ir a echarle una mano para que mejorara sus ventas
b) ... lo que mi madre dijo fue que Pedro había vendido sólo algunos productos
c) Ambos contextos son posibles...
(10) El estudiante no dijo que el profesor de arquitectura había dibujado nada en la pizarra...
a) ... y que por eso no había podido entender la complejidad de la estructura que estaban estudiando y suspendió el examen
b) ... lo que el estudiante dijo fue que el profesor había dibujado algo pero que no se acordaba de lo que era
c) Ambos contextos son posibles...
(11) El juez no dijo que la policía había detenido a nadie aquella tarde...
a) ... lo que el juez dijo fue que la policía había detenido a alguien, pero no sabía a quién
b) ... y por eso la víctima no pudo identificar al posible atacante
c) Ambos contextos son posibles...
(12) El empresario no dijo que el agricultor había plantado ninguna calabaza en su huerta...
a) ... y que por esa razón su negocio se había ido a la quiebra
b) ... lo que el empresario dijo fue que el agricultor sólo había plantado calabazas mallorquinas
c) Ambos contextos son posibles...
(13) Mi familia no dijo que nadie había visto el documental sobre elefantes..
a) ... por eso la cadena de televisión había tomado medidas para cambiar su programación televisiva y mejorar sus niveles de audiencia
b) ... lo que mi familia dijo fue que sólo algunas personas habían visto ese documental c) Ambos contextos son posibles...
(14) El administrador no dijo que ningún vecino había asistido a la reunión de propietarios..
a) ... por eso el administrador tuvo que posponer la reunión para la semana siguiente
b) ... lo que el administrador dijo fue que sólo unos pocos vecinos habían asistido a la reunión
c) Ambos contextos son posibles...
(15) Los vecinos no dijeron que nadie había roto las tuberías del baño...
a) ... seguramente la fuga de agua fue producida por la presión y el degradado estado de las tuberías
b) ... lo que los vecinos dijeron fue que los albañiles habían roto las tuberías
c) Ambos contextos son posibles..
(16) La viuda no dijo que nadie había enterrado al muerto en el funeral...
a) ...y que, a consecuencia de esto, el cadáver había quedado a la intemperie y había demandado a la funeraria por negligencia
b) ... lo que la viuda dijo es que sólo dos empleados de la funeraria enterraron al muerto
c) Ambos contextos son posibles...
(17) Mi madre no cree que Pedro vendiera nada en su tienda...
a) $\ldots$ y por eso decidió ir a ayudarlo para mejorar sus ventas
b) ... y por eso lo felicitó por sus exitosas ventas
c) Ambos contextos son posibles...
(18) El estudiante no cree que el profesor de arquitectura haya dibujado nada en la pizarra...
a) ... y que por eso no ha podido entender la complejidad de la estructura que se estaba estudiando
b) ... y que por eso ha podido entender perfectamente la complejidad de la estructura que se estaba estudiando
c) Ambos contextos son posibles...
(19) El juez no pensaba que los agentes de policía hubieran detenido a nadie aquella tarde...
a) ... a consecuencia de esto tuvo que posponer el juicio hasta nueva orden por falta de sospechosos
b) ... y por eso llamo a los agentes, para verificar que, en efecto, habían detenido a algún sospechoso
c) Ambos contextos son posibles...
(20) El empresario no cree que el agricultor haya plantado ninguna calabaza en su huerta...
a) ... y que esa es la razón por la que las fruterías locales no han podido vender calabazas a sus clientes
b) ... y que esa es la razón por la que las fruterías locales han podido vender tantísimas calabazas a sus clientes
c) Ambos contextos son posibles...
(21) Mi familia no cree que nadie haya visto el documental sobre elefantes...
a) ... y que esa era la razón por la que la cadena televisiva había cambiado su programación para mejorar sus niveles de audiencia
b) ... y que esa era la razón por la que la cadena televisiva había seguido emitiendo ese tipo de documentales
c) Ambos contextos son posibles..
(22) El propietario del $2^{\circ} \mathrm{B}$ no cree que ningún vecino asistiera a la reunión de propietarios...
a) ... y que por eso el administrador había pospuesto la reunión para la semana siguiente
b) ... y piensa que los que asistieron, decidieron iniciar la renovación de la fachada del edificio
c) Ambos contextos son posibles...
(23) Los vecinos no piensan que nadie rompiera las tuberías del baño...
a) ... y que seguramente la fuga de agua fue producida por la presión y el degradado estado de las tuberías
b) ... y que seguramente, la fuga de agua fue producida por los albañiles que habían venido a reformar el baño
c) Ambos contextos son posibles...
(24) La viuda no cree que nadie haya enterrado al muerto en el funeral...
a) ... y que, a consecuencia de esto, el cadáver había quedado a la intemperie toda la noche
b) ... y por eso había quedado satisfecha con los servicios proporcionados por la funeraria c) Ambos contextos son posibles...
(25) Mi madre duda que Pedro vendiera nada en su tienda...
a) ... y por eso decidió ir a ayudarlo para mejorar sus ventas
b) $\ldots$ y por eso lo felicitó por sus exitosas ventas
c) Ambos contextos son posibles...
(26) El estudiante niega que el profesor de arquitectura dibujara nada en la pizarra...
a) ... y sigue pensando que por eso los estudiantes no pudieron entender la complejidad de la estructura arquitectónica
b) ... y sigue pensando que por eso los estudiantes pudieron entender la complejidad de la estructura arquitectónica
c) Ambos contextos son posibles...
(27) El juez dudaba que los agentes de policía detuvieran a nadie aquella tarde...
a) ... a consecuencia de esto tuvo que posponer el juicio hasta nueva orden por falta de sospechosos
b) $\ldots$ y por eso llamo a los agentes, para verificar que, en efecto, habían detenido a algún sospechoso
c) Ambos contextos son posibles...
(28) El empresario niega que el agricultor haya plantado ninguna calabaza en su huerta...
a) ... y piensa que esa es la razón por la que las fruterías locales no han podido vender calabazas a sus clientes
b) ... y piensa que esa es la razón por la que las fruterías locales han podido vender tantísimas calabazas a sus clientes
c) Ambos contextos son posibles...
(29) Mi familia duda que nadie viera el documental sobre elefantes...
a) ... y piensa que esa es la razón por la que la cadena televisiva ha cambiado su programación para mejorar sus niveles de audiencia
b) ... y que esa era la razón por la que la cadena televisiva había seguido emitiendo ese tipo de documentales
c) Ambos contextos son posibles...
(30) El propietario del $2^{\circ} \mathrm{B}$ niega que ningún vecino haya asistido a la reunión de propietarios...
a) ... y piensa que por eso el administrador ha pospuesto la reunión para la semana que viene
b) ... y piensa que los que asistieron, decidieron iniciar la renovación de la fachada
c) Ambos contextos son posibles...
(31) Los vecinos dudan que nadie haya roto las tuberías del baño...
a) ... y creen que la fuga de agua fue producida por la presión y el degradado estado de las tuberías
b) ... y que seguramente, la fuga de agua fue producida por los albañiles que habían venido a reformar el baño
c) Ambos contextos son posibles...
(32) La viuda niega que nadie hubiera enterrado al muerto en el funeral...
a) ... y dice que va a demandar a la compañía funeraria porque el cadáver había quedado a la intemperie toda la noche
b) ... y por eso no cree que sea necesario que sus hijos demanden a la compañía funeraria porque pensaba que en general, habían hecho un buen trabajo
c) Ambos contextos son posibles...

## VITA

## EDUCATION

2012-2017 Ph.D., Hispanic Linguistics - University of Illinois at Chicago
Dissertation title: A Minimalist Analysis of Negative Concord in Northern Penisular Spanish
Committee: Luis López (Chair, UIC), Kara Morgan-Short (UIC), Jennifer Cabrelli Amaro (UIC), Myriam Uribe-Etxebarria (University of the Basque Country) and Susagna Tubau (Universitat Autònoma de Barcelona)

2010-2012 M.A., Hispanic Linguistics - University of Illinois at Chicago
Advisor: Luis López
Thesis: "Nothing is that Negative": New Solutions to Old Problems in Spanish Negative Concord

2006-2010 B.A., English Philology - University of Deusto, Bilbao, Spain Minor: New Technologies Applied to Philology

## PUBLICATIONS

Vergara, D., \& López, L. (2017) Obliteration after Vocabulary Insertion. In K. Bellamy, M. Child, P. González, A. Muntendam, \& M. C. Parafita Couto (Eds.), Multidisciplinary Approaches to Bilingualism in the Hispanic and Lusophone World. Amsterdam: John Benjamins.

Vergara, D. (2015). Uptalk in Spanish Dating Shows? University of Pennsylvania Working Papers in Linguistics: Vol. 21: Iss. 2, Article 21.

## In Preparation

Vergara, D. Basque complementizers under the microscope: A Spanish/Basque Code-Switching Approach

## RESEARCH EXPERIENCE

## Graduate Research Assistant - Bilingualism Research Laboratory, University of Illinois at Chicago

## PIs: Kay González-Vilbazo and Luis López

2016-2017 Director of Research Administration (IRB)

## VITA (continued)

2015-2016 Graduate Student Director
2014-2015 Director of Undergraduate Research
2013-2014 Director of Media, Design and Communications
2012-2013 Director of Undergraduate Research
2011-2012 Director of Finances
Mentorship of Undergraduate Students - Bilingualism Research Laboratory, University of Illinois at Chicago
2014-2015 Yadira Montoya
Project Title: Licensing N-words Across Domains
Liberal Arts and Sciences Undergraduate Research Award (Liberal Arts andSciences Research Initiative)
Project Title: Negation in Spanish/English Code-switchingIndependent Study
2013-2014 Cody LeeProject Title: Don't be so negative: Negation Across LanguagesLiberal Arts and Sciences Undergraduate Research Award (Liberal Arts andSciences Research Initiative)
Fall 2012 Angela BetancourtProject Title: Wh-questions in Spanish-English Code-switchingIndependent Study

Spring 2012 Pedro Galarza
Project Title: Negation and ellipsis phenomena in Spanish Independent Study

## GRANTS, HONORS AND AWARDS

## Research Awards and Grants

Fall 2015 University of Illinois at Chicago Provost's Award for Graduate Research $(\$ 1,500)$

## VITA (continued)

Fall 2014 Best Student Poster Presentation Award, $43^{\text {rd }}$ New Ways of Analyzing Variation conference, Chicago, IL (\$300)

## Academic Awards

2016-2017 Audrey Lumsden-Kouvel Fellowship (\$17,465.00)

## Travel Awards

Spring 2015 Graduate Student Council Travel Award, University of Illinois at Chicago
Fall 2014 Director of Graduate Studies Travel Award, University of Illinois at Chicago
Spring 2012 Director of Graduate Studies Travel Award, University of Illinois at Chicago

## Teaching Awards

2013-2014 Excellence in teaching, Basic Language Program
2013-2014 Highest achievement in teaching, Basic Language Program
2012-2013 Excellence in teaching, Basic Language Program

## PRESENTATIONS

## Invited Presentations

2016 Vergara, D. The licensing of n-words across domains. UIC Talks in Linguistics. University of Illinois at Chicago, IL: February 19 ${ }^{\text {th }}, 2016$.

2015 Vergara, D., \& López, L. Obliteration after vocabulary insertion. Ist International Workshop on Basque, Japanese and Neighboring Languages. University of the Basque Country, Spain: December 14-16, 2015.

2015 Vergara, D. Negation and negative concord in Spanish. Guest lecture in Dr. Kay GonzálezVilbazo's class on Advanced Spanish Grammar (SPAN 202), University of Illinois at Chicago, IL: October 20, 2015.

## VITA (continued)

## Peer-Reviewed Professional Meetings

2016 Vergara, D. Negative concord licensing across domains. 2016 Hispanic Linguistics Symposium. Washington, DC: October 7-9, 2016.

2016 Montoya, Y., Vergara, D., \& López, L. Negative concord licensing across domains. Poster presented at UIC Student Research Forum. Chicago, IL: April 12, 2016.

2015 Vergara, D., \& López, L. Obliteration after vocabulary insertion. 2015 Hispanic Linguistics Symposium. Urbana-Champaign, IL: September 24-27, 2015.

2015 Ebert, S., Heil, J., Koronkiewicz, B., Ramos, S.E., Vergara, D., \& López, L. Relative clause attachment in early and late bilinguals: evidence for the role of acquisition. 2015 Bilingualism in the Hispanic and Lusophone World. Leiden, Netherlands: January 15, 2015.

2015 Vergara, D., \& López, L. Obliteration after vocabulary insertion. 2015 Bilingualism in the Hispanic and Lusophone World. Leiden, Netherlands: January 14, 2015.

2014 Vergara, D. The use of uptalk in Spanish dating shows? Poster presented at the $43^{\text {rd }}$ New Ways of Analyzing Variation conference. Chicago, IL: October 24, 2014.

2014 Vergara, D. The use of uptalk in Spanish dating shows? InToSpan 2014, Amherst, MA: October 10, 2014.

2014 Lee, C., Vergara, D., \& González-Vilbazo, K. Don't be so negative: Negation across languages. Poster presented at UIC In/Between Conference. Chicago, IL: March 1, 2014.

2013 Potowski, K., Torres, L., \& Vergara, D. Tense, mood, and aspect in Chicago Spanish. Linguistic Association of the Southwest (LASSO), New Brunswick, New Jersey. September 2013.

2013 Ebert, S., Heil, J., Koronkiewicz, B., Ramos, S.E., Vergara, D., \& López, L. Processing in bilinguals: Evidence from relative clause attachment. Multilingualism: the Key Debates, Leeuwarden, Netherlands: September 12-13, 2013.

2013 Burten, M., Bartlett, L., Ebert, S., Vergara, D., \& González-Vilbazo, K. Linguistic competence of early and late bilinguals: Evidence from Japanese-English code-switching. Poster presented at the UIC Student Research Forum, Chicago, IL: April 162013.

2013 López, L., Ebert, S., Heil, J., Koronkiewicz, B., Ramos, S.E., \& Vergara, D. A look into the early bilingual's processor: Evidence from relative clause attachment. Poster presented at the $11^{\text {th }}$ International Symposium of Psycholinguistics, Tenerife, Canary Islands, Spain: March 20-23, 2013.

## VITA (continued)

2012 González-Vilbazo, K., Bartlett, L., Ebert, S., \& Vergara, D. Code-switching in heritage Taiwanese-Spanish bilinguals. Poster presented at Formal Approaches to Heritage Language. Amherst, MA: April 21, 2012.

2012 Bartlett, L., Ebert, S., \& Vergara, D. Linguistic competence in heritage speakers and second language learners: Evidence from code-switched wh-questions. 2012 UIC Bilingualism Forum, Chicago, IL: October 5, 2012.

2012 Vergara, D. The role of transfer at the syntax/semantics interface: The case of negative polarity items in second language learners and heritage speakers of Spanish. Symposium of Second Language Acquisition, University of Illinois at Chicago, Chicago, IL: December 10, 2012.

## Sessions Chaired

2016 Session on Spanish/English code-switching, 2016 UIC Bilingualism Forum, University of Illinois at Chicago, Chicago, IL: October 2016.

2014 Session on Language co-activation in Bilinguals, 2014 UIC Bilingualism Forum, University of Illinois at Chicago, Chicago, IL: October 2014.

## TEACHING EXPERIENCE

2014-2015 Coordinator of Spanish 104, Spanish Basic Language Program, University of Illinois at Chicago, Chicago, IL. Academic Year 2014-2015

2013-2014 Coordinator of Spanish 104, Spanish Basic Language Program, University of Illinois at Chicago, Chicago, IL. Academic Year 2013-2014

2010-2016 Graduate Teaching Assistant, University of Illinois at Chicago, IL, Courses:
Spanish 103: Intermediate Spanish (Fall 2010, Spring 2011, Fall 2011)
Spanish 104: Intermediate Spanish $2^{\text {nd }}$ semester (Summer 2012, Summer 2013, Fall 2013, Summer 2016)
Spanish 102: Beginning Spanish $2^{\text {nd }}$ semester (Spring 2011)
Spanish 101: Beginning Spanish (Fall 2012, Spring 2013)
Spanish 202: Advanced Spanish Grammar. (Summer 2014, Fall 2015)
Spanish 206: Introduction to Hispanic Linguistics (Fall 2013, Spring 2014)

## Other experience

2014-2016 Modern Language Specialist for Vista Higher Learning Publisher, University of Illinois at Chicago, IL.

## VITA (continued)

## SERVICE

## Journal and Abstract Reviewer

UIC Bilingualism Forum abstract reviewer, Spring 2015
UIC Bilingualism Forum abstract reviewer, Spring 2014

Conference Organization Committee
LSA Linguistic Summer Institute
Volunteer, Summer 2015
UIC Bilingualism Forum
Assistant organizer, Academic Year 2014-2015
Organizer, Academic Year 2012-2013
Volunteer, Academic Year 2010-2011
UIC Talks in Linguistics
Organizer, Academic Years 2012 - 2014
Assistant Organizer, Academic Year 2011-2012

## Teaching Service

New Teaching Assistant Orientation
Invited Guest Presenter, Fall 2011

## LANGUAGES

Basque - Native proficiency
Spanish - Native proficiency
English - Near-native proficiency
French - Reading proficiency
Italian - Reading proficiency


[^0]:    ${ }^{1}$ See chapter 2 for definitions of Negative Quantifiers and Negative Polarity Items.

[^1]:    a. ${ }_{¿}$ Has traido nada? AUX-2SG.PRSNT bring nothing
    'Did you bring anything?'
    b. *Si viene nadie, avísame
    if come-3SG.pRSNT No one let.me.know
    'If anyone comes, let me know

[^2]:    ${ }^{2}$ The exception to this is expletive negation (EN), which is discussed in Espinal (2007) for Spanish and Catalan. Espinal (2007:51) defines EN as "a pleonastic, paratactic or redundant negation, in the sense that, within a given structure, there is a negative item which does not modify the truth value of the proposition in which it appears (...) EN is a semantic effect obtained at the level of Logical Form (LF) when the negative property of specific syntactic constituents (either the negative marker no/ne or an n-word) occurring within some very specific syntactic conditions is absorbed by the semantic contribution of another expression provided within the context. In an example like (i), the Spanish lexical item no is optional and does not contribute to the negative meaning of the sentence. This optionality is signaled by the parenthesis.

[^3]:    ${ }^{3}$ See Espinal \& Prieto (2011), Tubau \& Espinal (2012) and Prieto et al. (2013) for a discussion of the phenomenon of DN in Catalan. In particular, these studies found that DN readings are not only triggered by the interaction between two inherently negative elements or quantifiers within the syntactic structure, but also by the intonation contour of the n-word.

[^4]:    ${ }^{4}$ The evidence for Neg-raising will not be discussed further in the present subsection since is not relevant for the current dissertation and I will refer the reader to (Collins \& Postal 2014) for further argumentation and examples.

[^5]:    ${ }^{5}$ Haddican (2004) proposes that the Basque negative marker $e z$ 'not' is not a head but a specifier, which is originally merged in the NegP projection on top of TP and then raises to spec, PolP. While his proposal will not be discussed further in this dissertation, I will refer the reader to Haddican (2004) for further argumentation and examples.

[^6]:    ${ }^{6}$ Giannakidou (2002) points out that Spanish n-words are prototypical NPIs because they are negation dependent. This will be discussed further in chapter 3, where I provide evidence that English and Basque negation-related

[^7]:    elements are better categorized as APIs since they can be licensed in a wider array of contexts, i.e., non-veridical, which also include negation.
    ${ }^{7}$ See section 2.1. for definitions of non-veridicality and anti-veridicality
    ${ }^{8}$ Expressions that are bound in semantics but not in syntax

[^8]:    *Dhen alithévi pu irte KANENAS not true that came n-person
    '*It is not true that everybody came'

[^9]:    
    'No one came'

[^10]:    ${ }^{9}$ As pointed out in Déprez et al. (2015), it is possible that the lexical ambiguity of $n$-words is due to differences in patterns of intonation.

[^11]:    ${ }^{10}$ See Carstens (2001) for further argumentation.

[^12]:    ${ }^{11}$ Gallego $(2005,2007)$ argues that as a consequence of Phase Sliding, post-verbal subjects as well as objects raise to the outer Spec, $v^{*} \mathrm{P}$ to receive case.

[^13]:    ${ }^{12}$ All the examples in this section come from Gallego \& Uriagereka (2011)

[^14]:    ${ }^{13}$ Bobaljik \& Wurmbrand discuss an asymmetry regarding the effects of QR in subjunctive/infinitive versus finite/raising constructions. While in the formers allow QR, the latters do not. The issue is explained by resorting to Fox's Scope Economy condition, which restricts QR in finite and raising cases. In this dissertation, I will only discuss the relevant examples for the discussion at hand and refer to Bobaljik \& Wurmbrand (2013) for the rest.
    ${ }^{14}$ Some of the examples are taken from Gallego \& Uriagereka (2011) and are repeated here for convenience.

[^15]:    ${ }^{15}$ Bobaljik \& Wurmbrand also extend this algorithm to morphology for superlative suppletion.

[^16]:    ${ }^{16}$ Although MacSwan (1990) claims that [neg] cliticizes with V. There is copious empirical evidence in support that [neg], in fact, cliticizes with T (see Laka, 1990; González-Vilbazo \& López 2013; among others.)

[^17]:    ${ }^{17}$ Vallduví (1994) also examines and discusses Catalan examples with n-words. However, I will not address those examples here since they are not relevant to the current discussion and I will refer the reader to the original article for discussion of the Catalan examples.

[^18]:    ${ }^{18}$ The reason behind the use of Basque/Spanish bilinguals, instead of Basque monolinguals, is because the majority of the population of the Basque Country is either Spanish monolingual or Basque/Spanish bilingual. Consequently, the number of Basque monolinguals is significantly reduced.

[^19]:    ${ }^{19}$ Franco \& Landa (2006) report that in Basque Spanish pre-verbal n-words can co-occur with a negative marker, as shown in (i). This, however, was not attested in the Spanish of the Basque/Spanish bilinguals in this experiment. Nonetheless, I would argue that the Obliteration rule in (16) is not part of the grammar of the speakers reported in Franco \& Landa (2006).

[^20]:    ${ }^{20}$ NM: Negative Marker

[^21]:    ${ }^{21}$ Rizzi proposes that the CP layer is split into different syntactic projections: [ForceP [Force'] [TopP [Top'] [FocP [Foc'] [TopP* [Top'] [FinP [Fin'] [TP...]]]]]]. The different functions of each projection being the following. ForceP, which specifies clause type. TopP, which hosts topics. FocP, which host foci and wh-phrases. FinP, which marks finiteness.

[^22]:    ${ }^{22}$ BOTH refers to those cases in which participants determined that the target sentence was ambiguous between a NC and a DN reading.

[^23]:    ${ }^{23}$ In this dissertation, I assume that NC relationships between the negative marker and the n -word(s) are established through Agree. However, there are some other approaches that explain the relationship between these elements in terms of binding (see Progovac, 1994; De Swart \& Sag, 2002; for argumentation). Although this issue will not be discussed further here, I will refer the reader to Bošković (2009) who discusses some of the limitations of the binding approach based on data from Serbo-Croatian.

[^24]:    ${ }^{24}$ The fact that subjects move up to TP is independent of case and has to do with theory internal considerations related to a so called strong D-feature on T and EPP which stipulates that all heads must have an overtly spelled-out Specifier. ${ }^{25}$ As discussed in section 2.3.3, at this point the n-word can either stay in PolP or move further to Spec, FocP following Rizzi (1997) to receive quantificational force. This potentially explains why n-words behave like NQs when they appear in pre-verbal position: pre-verbal n-words by virtue of being indefinites, can inherit the quantificational force from FocP.

[^25]:    ${ }^{26}$ Wurmbrand (1998) argues that infinitives selected by epistemic modals like can are Raising Infinitives.

[^26]:    1

