

**Phonological Variation in Cibaëño Spanish:
Social Networks as Potential Predictors of Semi-Vocalization**

BY

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THESIS

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TABLE OF CONTENTS

<u>CHAPTER</u>	<u>PAGE</u>
I. INTRODUCTION.....	1
1.1. Summary of the Problem	1
1.1.1. Intra-linguistic and Extra-linguistic Factors	2
1.1.2. Social Network Structure	3
1.2. The Study	4
1.3. Organization of the Dissertation	6
II. LITERATURE REVIEW	7
2.1. A Phonological Account of Semi-vocalization.....	7
2.1.1. Two Traditional Approaches to Semi-vocalization in Cibaeño Spanish.....	10
2.1.2. A Dissertation on Cibaeño Semi-vocalization.....	18
2.1.3. Alternative Syllable Structure and Prosodic Accounts of Liquid Gliding.....	26
2.1.4. A Feature Geometry Approach.....	33
2.1.5. Liquid Gliding as a Type of Opacity	36
2.1.6. A New Prosodic Approach	42
2.1.7. Motivation and Phonological Hypotheses	46
2.2. A Sociolinguistic Account of Semi-vocalization.....	47
2.2.1. Semi-vocalization from a Sociolinguistic Perspective	47
2.2.2. A Sociolinguistic Study of Vocalization in a Rural Area	53
2.2.3. Vocalization in the Speech of Children from Two Schools	56
2.2.4. Motivation and Sociolinguistic Hypotheses	57
2.3. The Social Value of Variation	58
2.3.1. Language Variation and Social Variables.....	59
2.3.2. Sociolinguistic Research and the Concept of Speech Community	61
2.3.3. The Community of Practice Concept.....	66
2.3.4. Social Network Theory	69
2.3.5. Social Network and Social Class	78

TABLE OF CONTENT (continued)

<u>CHAPTER</u>	<u>PAGE</u>
III. METHODOLOGY	83
3.1. Hypotheses	83
3.2. The Factors.....	85
3.2.1. Intra-linguistic Factors:	87
3.2.2. Extra-linguistic Factors:.....	87
3.2.3. Network-related Factors:	88
3.3. Data and Stimuli	88
3.3.1. Corpus I.....	88
3.3.2. Corpus II	91
3.4. The Settings	94
3.4.1. Catalina Arriba.....	94
3.4.2. Cuatro Esquinas and Las Escobas.....	97
3.5. Method of Analysis.....	100
IV. RESULTS AND DISCUSSION	104
4.1. Average of Production of Variants and Overall Rate of Semi-vocalization.....	104
4.2. Results Data Distribution Variables /l/ and /ɾ/	110
4.2.1. Results Data Distribution Intra-linguistic Factors Variables /l/ and /ɾ/	110
4.2.2. Results Data Distribution Extra-linguistic Factors Variables /l/ and /ɾ/	122
4.3. Results Multivariate Analysis	131
4.3.1. Results Multivariate Analysis (Variable /l/)	131
4.3.2. Results Multivariate Analysis (Variable /ɾ/)	136
4.4. Results Factors Related to Speakers' Social Networks	140
4.4.1. Results Data Distribution Factors Related to Speakers' Social Networks	140
4.4.2. Results Multivariate Analysis Factors Related to Speakers' Social Networks.....	153
4.5. Discussion	161

TABLE OF CONTENT (continued)

<u>CHAPTER</u>	<u>PAGE</u>
V. CONCLUSIONS AND FURTHER RESEARCH.....	177
5.1. Conclusions.....	177
5.2. Further Research	182
APPENDICES:.....	186
Appendix A.....	186
Appendix B	187
Appendix C	188
Appendix D.....	192
Appendix E	196
Appendix F	200
Appendix G.....	204
Appendix H.....	206
Appendix I	207
APPENDIX J.....	211
CITED LITERATURE	214
VITA 220.....	230

LIST OF TABLES

<u>TABLE</u>	<u>PAGE</u>
TABLE I. GLIDING BY DEFAULT (OT).....	40
TABLE II. DELETION UNDER PHONOTACTIC DURESS.....	40
TABLE III. DELETION UNDER PROSODIC DURESS.....	40
TABLE IV. DATA ON FREQUENCY OF VOCALIZATION (GOLIBART (1976)).....	49
TABLE V. THE SPEECH COMMUNITY TYPOLOGY (SANTA ANA AND PARODI (1998))	77
TABLE VI. AVERAGE OF PRODUCTION OF VARIANTS FOR VARIABLES /l/ AND /r/	105
TABLE VII. AVERAGE OF PRODUCTION PER SPEAKER FOR VARIANTS OF VARIABLE /l/	106
TABLE VIII. AVERAGE OF PRODUCTION PER SPEAKER FOR VARIANTS OF VARIABLE /r/.....	107
TABLE IX. DATA DISTRIBUTION BY TYPE OF PRECEDING VOWEL (VARIABLES /l/ AND /r/).....	112
TABLE X. DATA DISTRIBUTION BY TYPE OF FOLLOWING SEGMENT (VARIABLES /l/ AND /r/).....	114
TABLE XI. DATA DISTRIBUTION BY SYLLABIC POSITION (VARIABLES /l/ AND /r/)	115
TABLE XII. DATA DISTRIBUTION BY STRESS OF SYLLABLE CARRIER (VARIABLES /l/ AND /r/).....	116
TABLE XIII. DATA DISTRIBUTION BY STRESS OF FOLLOWING SYLLABLE (VARIABLES /l/ AND /r/).....	117
TABLE XIV. DATA DISTRIBUTION BY GRAMMATICAL CATEGORY (VARIABLES /l/ AND /r/).....	118
TABLE XV. DATA DISTRIBUTION BY TYPE OF PROSODIC WORD (VARIABLES /l/ AND /r/).....	119
TABLE XVI. DATA DISTRIBUTION BY TYPE OF FUNCTION WORD (VARIABLES /l/ AND /r/).....	120

LIST OF TABLES (continued)

<u>TABLE</u>	<u>PAGE</u>
TABLE XVII. DATA DISTRIBUTION BY GENDER (VARIABLES /l/ AND /r/).....	122
TABLE XVIII. DATA DISTRIBUTION BY AGE (VARIABLES /l/ AND /r/)	124
TABLE XIX. DATA DISTRIBUTION BY INCOME (VARIABLES /l/ AND /r/)	127
TABLE XX. DATA DISTRIBUTION BY LEVEL OF EDUCATION (VARIABLES /l/ AND /r/)	129
TABLE XXI. DATA DISTRIBUTION BY SPEECH STYLE (VARIABLES /l/ AND /r/).....	130
TABLE XXII. SEMI-VOCALIZATION: INTRA AND EXTRA-LINGUISTIC FACTORS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /l/	134
TABLE XXIII. SIGNIFICANT FACTOR GROUPS CONTRIBUTING TO SEMI- VOCALIZATION FOR VARIABLE /l/ AND RANGE RANKING	135
TABLE XXIV. SEMI-VOCALIZATION: INTRA AND EXTRA-LINGUISTIC FACTORS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /r/	137
TABLE XXV. SIGNIFICANT FACTOR GROUPS CONTRIBUTING TO SEMI- VOCALIZATION FOR VARIABLE /r/ AND RANGE RANKING	139
TABLE XXVI. DATA DISTRIBUTION BY NETWORK STRUCTURE (VARIABLES /l/ AND /r/).....	141
TABLE XXVII. DATA DISTRIBUTION BY NETWORK CONTENT (VARIABLES /l/ AND /r/).....	143
TABLE XXVIII. DATA DISTRIBUTION BY NETWORK COMPOSITION (VARIABLES /l/ AND /r/)	145
TABLE XXIX. DATA DISTRIBUTION BY NETWORK'S MEMBERSHIP (VARIABLES /l/ AND /r/)	146
TABLE XXX. DATA DISTRIBUTION BY SPEAKERS' ATTITUDE TOWARDS THE COMMUNITY (VARIABLES /l/ AND /r/).....	147
TABLE XXXI. DATA DISTRIBUTION BY FREQUENCY OF INTERACTION OUTSIDE THE COMMUNITY (VARIABLES /l/ AND /r/).....	148

LIST OF TABLES (continued)

<u>TABLE</u>	<u>PAGE</u>
TABLE XXXII. DATA DISTRIBUTION BY ATTITUDE TOWARDS MOBILITY (VARIABLES /l/ AND /ɾ/).....	150
TABLE XXXIII. DATA DISTRIBUTION BY STAY INSIDE/OUTSIDE OF THE COMMUNITY (VARIABLES /l/ AND /ɾ/).....	151
TABLE XXXIV. DATA DISTRIBUTION BY TYPE OF TIES OR DEGREE OF TERRITORIAL LOYALTY (VARIABLES /l/ AND /ɾ/).....	152
TABLE XXXV. SEMI-VOCALIZATION: FACTORS RELATED TO SPEAKERS' SOCIAL NETWORKS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /l/.....	155
TABLE XXXVI. SIGNIFICANT FACTOR GROUPS RELATED TO SPEAKERS' SOCIAL NETWORKS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /l/ AND RANGE RANKING	157
TABLE XXXVII. SEMI-VOCALIZATION: FACTORS RELATED TO SPEAKERS' SOCIAL NETWORKS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /ɾ/.....	159
TABLE XXXVIII. SIGNIFICANT FACTOR GROUPS RELATED TO SPEAKERS' SOCIAL NETWORKS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /ɾ/ AND RANGE RANKING	160
TABLE XXXIX. APPENDIX A.	186
TABLE XL. APPENDIX B.	187
TABLE XLI. APPENDIX G.	204

LIST OF FIGURES

<u>FIGURE</u>	<u>PAGE</u>
Figure I. Map of the Dialectal Zones of the Dominican Republic.....	10
Figure II. Socioeconomic Continuum for the Phoneme Realizations of Liquid Neutralization (Jiménez Sabater (1975)).	16
Figure III. Cross-derivational Feeding in Cibaeño (Baković (2007)).....	39
Figure IV. Overall Rate of Vocalization Variable /l/.....	109
Figure V. Overall Rate of Vocalization Variable /ɾ/.....	110

LIST OF SYMBOLS

Glides

- /j/ voiced palatal glide
- /w/ voiced dorsal glide

Liquids

- /l/ voiced alveolar lateral
- [li] voiced vocalized relaxed lateral
- /r/ voiced alveolar simple vibrant
- /r/ voiced alveolar trill
- [^hr] voiced pre-aspirated trill
- [ř] voiced fricative alveolar simple vibrant
- [ři] voiced vocalized fricative alveolar simple vibrant
- [ɹ] voiceless fricative trill
- /y/ voiced palato-alveolar lateral
- [ɭ] voiceless lateralized simple vibrant

Nasals

- /n/ voiced alveolar nasal
- /m/ voiced bilabial nasal
- /ŋ/ voiced velar nasal
- /ɲ/ voiced palatal nasal

Obstruents/plosives

- /p/ voiceless bilabial stop
- /b/ voiced bilabial stop
- [β] voiced bilabial approximant
- /f/ voiceless labio-dental fricative
- /ɸ/ voiced dental stop
- [ð] voiced dental approximant
- /ɸ/ voiceless dental stop
- /s/ voiceless alveolar fricative

Vowels

- /a/ Low central (unrounded) vowel
- /e/ Mid front tense (unrounded) vowel
- /i/ High front tense (unrounded) vowel
- /o/ Mid back (rounded) vowel
- /u/ High back (rounded) vowel
- /ɛ/ Mid front lax vowel unrounded
- /ʌ/ Mid central unrounded vowel (Eng.)
- /æ/ Lower mid front vowel (Eng.)
- /ɪ/ Semi-high front vowel unrounded (Eng.)

Other Symbols

- V: Lengthened vowel
- [ə] Mid fore-central glide (between [e] and [ə])
- [Ø] Deleted segment
- [j] Weaker palatal glide
- [ə] Weaker mid fore-central glide

SUMMARY

A study of the effect of several intra and extra-linguistic factors on the variation patterns of language use among speakers of Cibaeño Spanish was conducted using a variationist, multidisciplinary approach. Sociolinguistic interviewes with 36 speakers from rural areas of the Cibao region in the Dominican Republic were analyzed looking at the phonological process of semi-vocalization and the correlation between intra and extra-linguistic factors and such process. In addition, information about the structure and content of the speakers' social networks was analyzed to determine the effects of individual linguistic differences on the variation patterns of language use among the speakers.

Phonological context, stress, syllabic position and grammatical category were intra-linguistic factors that had an effect on semi-vocalization. Regarding the social factors, age, income and level of education also showed a correlation with the process. As for the social network related factors, only the content of the network showed a clear correlation with semi-vocalization which can potentially explain linguistic variation among the speakers.

Since a consideration of the intra, extra-linguistic and social network related factors separately does not provide a comprehensive account of the variation patterns attested to in the data, a multidisciplinary approach was suggested as the optimal approach to explain linguistic variation among the speakers of the analyzed datasets.

I. INTRODUCTION

Variation as an inherent feature of natural languages is widely accepted. An analysis of variation is essential to a fuller understanding of language. The study of variation has shown that it is not chaotic and random but rather there are patterns which suggest that variation is, in fact, socially and linguistically constrained. Since variation is found at all levels of language, scholars are faced with issues of phonological, morpho-syntactic and semantic variation, to mention just a few. Variation is also found between dialects and/or among speakers of the same dialect. In languages such as Spanish, any of its dialects can provide data for the analysis of variation and, a vernacular variety is especially suitable for this type of study, since it is considered the style in which consistent patterns of variation are to be observed (Labov (1972)). Considering that variation seems to be constrained by intra (i.e., internal to the language) and extra (i.e., social) linguistic factors, it is crucial that the analysis of variation take into account both of these types of factors. However, in spite of the increasing number of studies that deal with variation in Spanish dialects, there is still a need for research that effectively accounts for variation using an approach that combines the available research bridging both the micro (individual) and macro (social) levels of analysis.

1.1. **Summary of the Problem**

The study of phonological variation in Dominican Spanish has been approached from theoretical¹ perspectives as well as from sociolinguistic viewpoints. Among the documented

¹ Although sociolinguistic studies also include a theoretical perspective, the term *theoretical* will be used here to refer to formal linguistic accounts of phonological variation as opposed to studies that use a variationist (sociolinguistic) approach.

phenomena investigators have found the processes of liquid /l, r²/ and stop /p, t, k, b, d, g/ semi-vocalization (by which the segments become the palatal glide [j] in coda position) and elision in the sub-dialect of Cibaeno Spanish. Several studies have accounted for such processes within these two fields (Henríquez Ureña (1975); Jiménez Sabater (1975); Golibart (1976); Alba (1979, 1988, 1990); Guitart (1981); Rojas (1981, 1988); Marrero et al., (1981); Harris (1983); Coupal et al., (1988); Pérez Guerra (1991); Núñez Cedeño (1997); Baković (2007); Núñez Cedeño and Acosta (2011)), however, research developed within the framework of Social Network Theory suggest that certain patterns of interpersonal relations associated mainly to the structure and content of speakers' networks may effectively account for individual linguistic behavior.

1.1.1. Intra-linguistic and Extra-linguistic Factors

The relevance of considering factors that are intra-linguistic as well as extra-linguistic is recognized in a large amount of research. It has been shown that both types of factors may constrain speakers' linguistic choices. For instance, it has been found that there are certain factors that are internal to the language which constrain the application of the vocalization process (Jiménez Sabater (1975); Golibart (1976)). Namely, it does not apply when the preceding segment is the high front vowel [i] (e.g., /firme/ → ['fime] > *['fijme] 'firm')³; when liquids are word-final in unstressed syllables in a paroxitone word (e.g., /kanser/ → ['kanse] > *['kansej] 'cancer') and, in some cases it does not apply when the liquid is in an unstressed monosyllable followed by a

² This study will not discuss the issue of whether there is one or two underlying vibrants. For a discussion about the topic see Harris (1983, 2002), Núñez-Cedeño (1994) and Bradley (2006). This dissertation will consider only the simple vibrant /r/ in coda position.

³ In the examples provided here ‘.’ indicates syllable boundary, “+” indicates morpheme boundary, “'” refers to the stressed syllable immediately to the right, “#” represents word boundary and, “*” refers to unfelicitous words. As customary in phonological studies, underlying forms are represented in slashes “/” and phonetic forms in brackets “[]”.

word beginning with either a stressed or unstressed vowel (e.g., /el aho/ → [el 'aho] > *[ej 'aho] ‘the garlic’).

Likewise, an increasing amount of studies have shown a correlation between extra-linguistic (social) factors and specific types of language variation. In the case of semi-vocalization, results from several sociolinguistic studies (Golibart (1976); Alba (1988, 1990); Rojas (1981, 1988); Marrero et al., (1981)) reveal a significant relationship between this process and factors such as age, sex, socio-economic class, place of origin and residence of the speakers as well as style. Such factors seem to have a systematic effect on the choice a speaker makes concerning semi-vocalization.

1.1.2. **Social Network Structure**

The notion of social network has been used as an analytic concept in the description of social relations. Its structural (i.e., density) and content/interactional (i.e., uniplexity-multiplexity) characteristics (Boissevan (1974); Bott (1971)) are currently widely accepted and used by scholars that seek to provide an adequate description of social behavior. The concept has also proven profitable in the prediction of speakers’ linguistic behavior (Bott (1971); Blom and Gumperz (1972); Milroy and Milroy (1977, 1992); Milroy (1980); Milroy and Margrain (1980)). In sociolinguistics, it has been used to provide accounts for some *class* based findings that remained unaccounted for and to help in the identification of patterns of relationship that could account for individual linguistic variation. The social network approach seeks to move beyond preconceived social groupings such as *class* to focus on the analysis of more locally meaningful categories, therefore, enlightening the interactions between the configuration of the speakers’ networks and both broader categories (such as gender, social class and ethnicity) and more community specific categories.

Network studies have shown that the structural and content characteristics of density and multiplexity can be “excellent indicators of the pressures on a person to adopt the norms and values –including linguistic norms and values- of the local team” (Milroy (1980:139)). That implies that a speaker’s membership in certain network exerts pressure on her to reach a (linguistic) agreement or “normative consensus” with the other members of the network. In rural areas, for instance, networks have often been found to be dense and multiplex (Bott (1971)). It has also been found that speakers integrated into these types of networks have higher rates of use of vernacular forms (e.g., semi-vocalization in the Cibao region) which may respond to the fact that nonstandard varieties and repertoires are considered to have important social functions. By focusing on individual variation, studies that have employed the notion of social network have succeeded in bridging two levels of analyses by linking the study of the individual (micro) linguistic behavior to broader social (macro) theory, thus, increasing their accounts’ explanatory power.

1.2. **The Study**

This study is concerned with the analysis of language variation in the vernacular speech of a broad rural zone in the Cibao region, in the northern central area of the Dominican Republic. Using a variationist, interdisciplinary approach, this study combines previous findings in the fields of phonology and sociolinguistics to identify the intra and extra-linguistic factors that have a significant effect on the variation patterns of language use among the speakers of these communities. It also incorporates Social Network Theory to give an account of individual variation in their linguistic behavior.

The study focuses on the observation, description, and analysis of the phonological process known as semi-vocalization (traditionally known as vocalization but also referred to as liquid gliding and deconsonantalization), in which both liquid and stop segments become the palatal glide [j] in coda (post-vocalic) position. The analyses presented here will concentrate only on liquid semi-vocalization and will not consider stop semi-vocalization.⁴ From a variationist perspective, it will center on the study of the segments /l, ɾ/ as the *linguistic variables* which can be produced by the speakers of these rural communities as any of the following *variants*: the liquids [l, ɾ], the palatal glide [j] or a deleted segment [Ø] in coda position.

Several intra-linguistic factors are considered in the analysis, for instance, the preceding and following phonological context; the syllabic position; the type of stress of both the syllable carrier of the semi-vocalized segment and the following syllable; the grammatical function (whether it is a prosodic or a function word); the type of prosodic word, and the type of function word. Regarding the extra-linguistic factors, I assume that the variants used by the speakers carry particular social meanings, therefore, given previous findings the following variables may be important for the purposes of this dissertation: level of education, income, age, and style.

This study also assumes that nonstandard varieties and repertoires have important social functions (Milroy (1980)) and that in rural areas networks tend to be dense and multiplex. Since speakers engaged in these types of networks have usually higher rates of vernacular forms, a high rate of semi-vocalized forms is expected to be found among the speakers of the communities

⁴ Initially, this study intended to account for both liquid and stop semi-vocalization in Cibaeno Spanish, however, the scarcity of the data on stop semi-vocalization in the speakers' spontaneous speech prevented me from including an account of the phenomenon. From the two data sets (see description in section 3.3), Corpus II focused on stop semi-vocalization; the stimuli included activities designed specifically for eliciting cases of such process. It was found that every time speakers performed these activities they either semi-vocalized or elided the stop. They also semi-vocalized the stops in spontaneous speech (i.e. the part of the interview where they generated personal narratives and stories) in both corpora, which mean the process is very robust in their speech. However, since the number of cases was minimal in spontaneous speech, it was insufficient for an adequate variationist analysis of the process.

under examination. In addition, I examine the type of ties an individual has with her local group. Given that individuals with close-knit or strong ties to the local group are found to be more likely to use vernacular forms than those with loose-knit or weak ties (Milroy (1980)), the examination of such ties could help in the prediction of the linguistic behavior of speakers concerning semi-vocalization. Finally, incorporating an analysis based on the structure of the speakers' personal networks may, not only effectively explain their linguistic behavior and patterns of language use, but also associate the individual level of analysis to a larger social theory bridging the individual and collective analyses of language variation within the same approach.

1.3. **Organization of the Dissertation**

The remainder of this dissertation is organized as follows: in chapter II below I provide a three-part review of the literature that is most relevant to the purposes of this study. In the first part, a summary of several relevant phonological accounts of semi-vocalization is offered; in the second part, a summary of sociolinguistic analyses of the process; and finally, in the third part, I review some aspects related to the social value of variation and present a summary of Social Network Theory and the concepts of Social Class and Social Network. In chapter III, I explain the methodology, postulate the hypotheses, and establish the intra and extra-linguistic as well as the network related factors to be examined. I also describe the data and stimuli, the settings and the method of analysis. In chapter IV, I show the results and present a discussion of the hypotheses in term of the findings. Finally, in chapter V, I conclude the study and make some suggestions for future research.

II. LITERATURE REVIEW

This study incorporates research developed within three main areas: First, previous findings in phonological studies are used as the basis for the identification of the intra-linguistic factors that constrain speakers' linguistic choices; Secondly, results from sociolinguistic studies provide the basis for the identification of the extra-linguistic factors that have a significant effect on the variation patterns of language use among the speakers of the communities under examination and lastly, Social Network Theory is used to explain individual variation in their linguistic behavior.

Next, I provide a three-part review of the relevant literature. In the first part of the review, I offer a phonological theoretical account of semi-vocalization, including several studies that approach semi-vocalization from traditionalist perspectives, as well as studies that use the more current generativist framework. In the second part, I examine some of the works that have dealt with semi-vocalization in the Cibao region from a sociolinguistic perspective, in urban and rural areas and, finally, in the third part, I review important aspects related to the social value of variation such as the connection between language variation, social variables, and essential concepts such as Speech Community and Community of Practice. Then, I present a summary of Social Network Theory and the concepts of Social Class and Social Network.

2.1. **A Phonological Account of Semi-vocalization**

The need for conducting rigorous scientific dialectological studies in the Caribbean emerged as early as the 1970s. In 1976, for instance, several scholars (among which was the Dominican linguist Max Jimenez Sabater) who were dedicated to the investigation of Caribbean Spanish, met at a Symposium at the University of Puerto Rico, with the intention of

understanding the current state of the Spanish spoken in the Caribbean. At the time, there was certain agreement among the researchers as to the existence of a dialectological and/or regional linguistic system that shared a series of features. Such agreement as well as the appearance of new technological developments provided the conditions that allowed linguists to start conducting scientific-based research on Caribbean Spanish.

In the specific case of the Spanish in the Dominican Republic, as early as the 1940s there were publications that attempted to formally approach the study of the language. However, it was during the 1970's that a series of efforts were made to catalogue and disseminate the distinctive features of Dominican Spanish (henceforth DS), not merely from a prescriptive point of view but from a more current, generativist perspective. Many of these works, nonetheless, did not built upon previous studies, and as a result, the construction of a consensual framework for the linguistic system of DS was not achieved. According to Jiménez Sabater, it was not until 1975 that linguists in the Dominican Republic collectively approached language studies from an actual scientific perspective (1977:159).

Many of the traditional studies about DS consisted of descriptions of the phonetic, phonological, and sometimes morpho-syntactic features of the language used by Dominicans, mostly the language of uneducated and peasant speakers. The most influential of these studies for subsequent research were Pedro Henríquez Ureña's work from 1940 (edited and published as a second edition in 1975), *El español en Santo Domingo* and Max Jiménez Sabater's book *Más datos sobre el español de la República Dominicana* (1975) based on his doctoral dissertation.

Both Henríquez Ureña and Jiménez Sabater identified sub-dialects within the Dominican territory, clearly recognizable by specific phonetic and phonological phenomena. Among the processes they documented, there was a particular type of phoneme neutralization consisting of

the production of the liquids /l, r/ as either of the allophones [l], [r], [j] or deleted [Ø] and of the production of the stops /p, b, d, k, g/ either as stops, as [j] or as an elided segment [Ø]. It has been argued that the traditional label of *Vocalization* used in many studies was not the most appropriate since the segment resulting from the neutralization in [j] is not exactly a vowel. Guitart (1981) and subsequent studies, for instance, have identified the process as *liquid gliding* when referring to the neutralization of liquids. Navarro Tomás (1965:49) formally describes this non consonantal segment as a palatal semi-vowel (cf. semi-consonants) with momentary articulation and a tendency to progressively close its palatal opening, from a vocalic opening to a fricative narrowness (1965: 20). D’Introno et al. (1995) discusses whether the process should be thought of as vocalization or gliding depending upon the type of assumptions that are made about the underlying representations of the [+high] segments. Considering that it is not essential for the purposes of this dissertation, a detailed discussion of the appropriateness of these labels will not be included. For the purposes of this study, the term semi-vocalization will be used to refer to the phonological process under analysis; however, such discussion must be pursued in the future.

Each linguistic area or subdialect in the Dominican Republic is associated with a specific form of neutralization (see map below in Figure 1). For instance, the lateral [l] is associated with the speakers of the Southeast and the capital, Santo Domingo; the vibrant [r] is associated with the Southwest, and [j], the semi-vocalized form, is associated with the North region or Cibao. Moreover, in the Cibao area, has been found neutralization of the stops /p, b, d, k, g/ in [j] and in some cases, their elision altogether. The referred authors presented data (some of which are shown below) illustrating such processes. This dissertation focuses only on the phonological process in which underlying liquids (see footnote 4) become the palatal glide [j] in coda position⁵.

⁵ Semi-vocalization in other dialects, such as Chilean Spanish, is a process in which the segments can become either [j] or [w]. But in Cibaeno Spanish, the dialect under study here, only the palatal glide is found.

Although, as referred to above, I will mostly use the term *semi-vocalization* to designate the neutralization in [j] of liquid segments, when pertinent I will refer to the process as *liquid gliding*.



Figure I. Map of the Dialectal Zones of the Dominican Republic

2.1.1. Two Traditional Approaches to Semi-vocalization in Cibaeno Spanish

In 1940⁶, the well-known Dominican linguist Pedro Henríquez Ureña published his work about Spanish in Santo Domingo⁷. His main thesis was that Dominican Spanish was the dialect

⁶ The phenomenon had already been mentioned in *Observaciones sobre el español de América* published in 1921 (Henríquez Ureña (1921)).

⁷ Even though the title of Henríquez Ureña's work is *El Español en Santo Domingo* and not in the Dominican Republic, the phenomena described cover most or the total of the Dominican territory and does not focus only on the Santo Domingo area.

with the greatest number of archaic forms in use; in order to show that, he gathered an exhaustive list of words, phrases and sayings illustrative of such archaism, including semi-vocalization, which he argued was not extended to the entire country. I will focus here only on his account of the phonetic system and its variations (wherein semi-vocalization phenomena was dealt with); the interested reader is referred to Henríquez Ureña (1975) for a complete account of Dominican Spanish. It is worth mentioning that such an account is based on his personal impressions about the dialect and not on the scientific analysis of the data, for which mechanisms were scarce at the time.

The author, who sustained that the Dominican phonetic system has several similarities with the Andalusian, distinguished between the pronunciation of upper and lower class speakers and provided a series of features for each type of speaker. For instance, among upper class speakers he found more open vowels than their Castilian counterparts, an articulation of /ɖ/ ranging from dental to interdental and, consonantal weakening⁸ in coda position (although implosive consonants other than /l, r, s, ɖ/ and nasals were maintained in learned words). Among lower class speakers there was little differentiation in vowel articulations; syllable-initial and intervocalic consonants were similar to the upper class' consonants excluding intervocalic /ɖ/ which was dropped after stressed syllable in paroxitones (e.g., /na.ɖa/ → ['naa] → ['na] 'nothing') but not in other environments. On a variable basis, intervocalic /r/ was also found to be dropped as in the cases of /para/ → ['pa] 'for'; /agora/ → [a'goa] 'now'; /parese/ → [pa'ese] 'it seems'; among others.

Concerning syllable final consonants, they were usually dropped; however, the author noticed that there were certain consonants (e.g., stops) unlikely to be pronounced by this group of

⁸ See Harris-Northall (1990) for a historical account of weakening processes in Spanish.

speakers (supposedly because they never heard or learned them); therefore, words containing such learned groups were not of popular use. When the words were used, the consonants were either dropped, in examples like /dokˤtor/ → [dɔˤtor] for [dɔkˤtor] ‘doctor’ and /ˤdɔkˤtrina/ → [dɔˤtrina] for [ˤdɔkˤtrina] ‘doctrine’ or in some cases replaced by the rhotic /r/ as in /aksjon/ → [arˤsjon] for [akˤsjon] ‘action’ or /leksjon/ → [lerˤsjon] for [lekˤsjon] ‘lesson’.

Henríquez Ureña reported that both /l/ and r/ in coda position underwent various and “curious” transformations resulting in several alternations, all of which could be found within the speech of an individual speaker (1975:44). Such transformations are shown in (1):

(1)

- a. a relaxed, intermediate articulation resulting in a sound⁹ between [l] and [r];
- b. assimilation to the following segment (e.g., /kwerpo/ → [ˈkweppo] ‘body’; /falda/ → [ˈfadda] ‘skirt’);
- c. elision (e.g., /muxer/ → [muˈxe] ‘woman’; /papel/ → [paˈpe] ‘paper’);
- d. semi-vocalization in [j] (e.g., /komer/ → [koˈmej] ‘to eat’; /sweldo/ → [ˈswejdɔ] ‘salary’);
- e. production of the phoneme /r/ as a pharyngeal aspirated segment (e.g., /karne/ → [ˈkahne] ‘meat’) and as a nasalized pharyngeal aspirated (e.g., /mehor/ → [meˈhɔfi] ‘better’).

It was also pointed out that in the region where semi-vocalization occurred the other alternations were barely found. Finally, Henríquez Ureña identified a hypercorrection process implemented by uneducated speakers in order to “hablar fisno” ‘speak finely/properly’ which consisted mainly of repairing missing /s/ in coda position. The targeted /s/, however, was not always incorporated in its proper position but rather integrated into words in which such segment

⁹ The production of such sound would make impossible to differentiate, for instance, between alma ‘soul’ and arma ‘gun’ or cardo ‘thistle’ and caldo ‘broth’.

was not expected (e.g., /fino/ → [fisno] ‘fine’). The hypercorrection affected also the rhotic /r/ in the Cibao region and in some towns of the Southwest (e.g., /nai.de/¹⁰ → [nar.de] ‘nobody’).

Henríquez Ureña (1975) is one of the first studies that dealt almost exclusively with Dominican Spanish and constitutes an important contribution to the study of this dialect. It provides an extensive amount of data and even though his traditional approach has been improved, reformulated or challenged by other scholars in subsequent studies, it had such an impact that it still represents a milestone in the formal study of Dominican Spanish.

After the publication of Henríquez Ureña’s work, Jiménez Sabater (1975) appears as a dialectological study that seeks to contribute to the detection and observation of interesting linguistic processes in the Dominican Republic, using scientific-based tools. He dealt with diachronic and synchronic phenomena¹¹, looking in depth at the vocalic and consonantal systems. His main goal was to provide a complete account of the phonetic and ultimately, of the phonological, morpho-syntactic and intonational features of DS. I focus here only on his account of the consonantal system, and specifically, on the detailed description he provides of the neutralization processes of both liquids and stops and some of the data he presents. This author established three criteria for the classification and analysis of the neutralization processes attested to in his data: the geographical regions in which they occurred; the restrictions imposed by some phonological contexts, and what he called the speakers’ “ecological extraction” referring to the socio-economic class to which they belonged.

Regarding the first criterion, Jiménez Sabater divided the Dominican territory in five dialectal zones, using the well delimited articulation of the phonemes /l/ and /r/ in coda position as either liquids or the glide [j] to divide them. The regions are: the North or Cibao, the Southwest,

¹⁰ Notice that this word underwent a metathesis process first (/na.dje/ → [naj.de]) and then the hypercorrection ([nar.de]).

¹¹ All of the processes can be seen in Jiménez Sabater (1975).

the Southeast, the Distrito Nacional (Santo Domingo, the capital) and the Eastern part of the Samaná Peninsula (see map above in Figure 1). He pointed out that the neutralization processes did not occur across the board throughout the territory but that there were processes most commonly found in and related to specific regions, for instance, [l] to the Southeast and Santo Domingo; [ɾ] to the Southwest part of the country and [j] to the North region or Cibao (see the results below).

Concerning the second criterion, he classified the consonants into segments of popular (e.g., labials, dentals, alveolars, palatals, palato-alveolars and nasals) and learned (e.g., stops) origin and found that some contexts constrained the application of the process. For instance, semi-vocalization occurred in most contexts except the final position in non-oxitones, before /n/ and /l/, after /i/ and only partially before /tʃ/ and /s/.

Regarding the last criterion, he differentiated between urban and rural pronunciations by middle and lower class speakers. In the Cibao region this difference resulted in the omission by middle class speakers of the archiphoneme resulting from the neutralization of /l/, /ɾ/ and /i/, represented as [I], in the urban areas whereas it led to its permanence in rural areas, especially by peasants. As for the other regions, a similar differentiation was made; however, the alternation was between the other regional variants.

A summary of Jiménez Sabater's findings about the neutralization processes that underwent liquids and stops within the consonantal system is presented below in (2). The results are mainly for the Cibao area since it is the region where the semi-vocalization is mostly known to occur and the region of focus of this study, however, results for other areas may be also shown, when pertinent.

(2)

- a. the neutralization of /l/ and /ɾ/ as either one of the allophones [l], [ɾ] or [j] (e.g., *puerta* [pweɫta] or [pweɟta] ‘door’; *alma* [arma] or [ajma] ‘soul’);
- b. a weak realization ranging between [l] and [ɾ] with some voiceless quality to it [l̥] in the consonantal groups <rs> and <ls> in the Southeast area of the country;
- c. the allophone [ɾ] as the most frequent realization of the trill /r/ throughout the country;
- d. a velar realization and a pre-aspirated trill [ʰr].

This last finding differed from those of Henríquez Ureña, who indicated that neither velar nor fricative realizations were found for this phoneme in DS. It differed as well from those of Navarro Tomás (1956), who pointed out that this phoneme was not actually produced as a trill, but rather as a softer and sometimes assibilated segment.

In (3), Jiménez Sabater’s findings in the Cibao area are given:

(3)

- a) the velar realization of the phoneme /ɾ/ was sometimes voiceless;
- b) a slightly voiceless fricative allophone [ɾ̥] in tokens like *carro* [kaɾ̥io] ‘car’ and *perro* [peɾ̥io] ‘dog’;
- c) uncommon alternations for both rhotics and laterals in word-initial position (yet in specific linguistic contexts, such as word-initial of highly used lexical items he could identify the deletion or dropping of /ɾ/ in words like *para* ‘for’, *quiero* ‘I want’ and *parece* ‘it seems’).

Since it is not essential for the purposes of this dissertation, I do not deal directly with the different types of realizations of the semi-vocalization in Cibaeño Spanish (henceforth CS). Rather, I collapse all possible realizations into the palatal glide [j] (for other types of realization of semi-vocalization see Golibart (1976)).

According to Jiménez Sabater, the most noticeable feature of Dominican speech is that these phonetic alternations were produced in syllable final. Even today, the distribution of these alternations is such that it is possible to determine, just by listening to their speech, the regional

provenance of any Dominican speaker. As a result of the social values attached to the alternations, the author proposed a socio-economic continuum (see Figure 2 below) for the phoneme realization. It ranged from a distinction between /l/ and /ɾ/ among upper class speakers, to what he calls *confusion* within middle class speakers, to complete neutralization among lower class speakers. Nonetheless, it must be said that such a distinction either was not as absolute as described at that time, or does not apply today, since it is possible to currently find upper class speakers who also *confuse* or neutralize the phonemes.

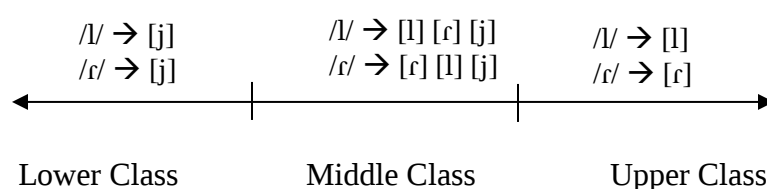


Figure II. Socioeconomic Continuum for the Phoneme Realizations of Liquid Neutralization (Jiménez Sabater (1975)).

He also established that the extension of the semi-vocalization was even greater than the distribution proposed by Henríquez Ureña, covering the complete north region up to the eastern part of the Samaná Peninsula and reaching almost Santo Domingo southward. He concluded that the Cibao was the area in the world where the semi-vocalization process was more extensively spread (see also Golibart (1976) for a similar notion).

The data in which liquid neutralization was found are presented in the contexts shown in (4) below:

(4)

- a. before voiced and voiceless stops /b, d, g, p, t, k/;
- b. before fricative /s/;
- c. before palatal /ɲ/;
- d. before nasals /n/ and /m/;
- e. before the rhotic /r/ followed by /l/;
- f. in word final position and final /r/ in infinitives.

The general results revealed that semi-vocalization was the main process found before voiced and voiceless segments, before /s/ (with a 66% of the total), before nasals, in word final position and in infinitives when there was not a clitic pronoun attached to it. For the rhotic, in infinitives with a clitic, deletion was mostly found. See Appendix A for other findings regarding liquid neutralization in every context as well as lexical items exemplifying the processes.

Regarding stops, they were analyzed in the following consonantal groups: *bs*, *bj*, *ps*, *pt*, *cc*, *ct*, *gn* and *tm*. The results revealed that the segments were mostly deleted, although there were also a few cases of stop semi-vocalization. Detailed findings are shown in Appendix B.

In sum, the neutralization processes studied affected the segments in coda position and resulted in the production of liquids, sometimes as the allophone [j] in the Cibao and in a parallel semi-vocalization process or complete deletion in the case of stops. The results were presented for middle and lower class speakers. Jiménez Sabater concluded by suggesting that the aforementioned processes, as well as others that affect segments in coda position in DS, contribute to the Spanish language's natural tendency to transform closed syllables into open ones. Further, he found that the Dominican dialect, among all dialects, served as the best example of this tendency. He concluded that the phonological system of Dominican Spanish showed a

simplification or reduction affecting especially the consonants but also the vocalic system through the neutralization of liquids, stop segments and the palatal glide¹².

Jiménez Sabater's study is an excellent starting point in the study of Dominican Spanish in particular and Caribbean Spanish in general, since it describes in detail most of the phonetic, phonological, morpho-syntactic and intonational features and processes found in DS. It can also be considered the first attempt to study, using scientific tools, linguistic phenomena in this dialect. In spite of the somehow expected logistic limitations (e.g., transportation, climate, lodging, etc.) in the conduction of the study and the issues with the data collection (e.g., recruiting informants, recording their spontaneous speech) Jiménez Sabater (1975) laid the foundations for the study of DS from a scientific and more formal point of view. Today's highly technological perspective may generate reservations regarding the reliability of his findings; however, subsequent studies have, at least partially, found similar results. It must be said that, albeit basing the scrutiny of his data on auditory perception, he did a notable work by tape recording the speech and subsequently examining it with the scarce tools available at the time.

2.1.2. **A Dissertation on Cibaeño Semi-vocalization**

The idea of a simplified phonological system in DS advanced by Jiménez Sabater also permeates Golibart's (1976) research. This author focused his Master's thesis on the study of liquid semi-vocalization (which he called *vocalization*) as the main and most stigmatized feature of Cibaeño Spanish. Such stigmatization, still present in DS, makes Cibaeños be perceived (even by themselves) as speakers of 'bad Spanish' and eventually causes some middle and lower class speakers to diminish, modify or hypercorrect their speech in order to avoid the occurrence of semi-vocalization.

¹² There are reservations concerning the existence of glides underlyingly. See Roca (1994) for a discussion.

Golibart described various phonetic realizations of semi-vocalization (some of them different from those presented by Jiménez Sabater) and proposed a generative analysis of the semi-vocalization in Cibaño as well as a rule that produces it. While he also attempted to give an explanation for the existence of semi-vocalization in the Dominican Republic this topic will not be covered in the present dissertation. In his data, which came from the informal speech of speakers from different places and socio-cultural backgrounds, the author compared speech that was recorded with and without the speakers' awareness in order to determine how consciousness affected their speech behavior. He found a variable realization of the semi-vocalization especially regarding vowel quality.

There were six realizations in the data. The last two phonetic realizations are the result of variations in the intensity and duration of the first two and that seemed to be affected by several factors including the emotional state of the speaker and their position in the stress contour.

- 1) a high front glide [j];
- 2) a mid, fore-central glide (a sound between [e] and [ə] which he represented as [ə]);
- 3) a lengthened vowel preceding the vocalized liquid [V:];
- 4) a completely deleted segment [Ø];
- 5) a weaker version of [j] represented as [j̥];
- 6) a weaker version of [ə] represented as [ə̥].

An association between the phonetic realizations of the semi-vocalization and the speakers' socio-cultural background was also found. The correlation is shown in (5) below.

(5) Correlation between phonetic realization and speaker background (Golibart (1976))

Phonetic realization	Speaker socio-cultural background
[j]	Rural/Urban-lower class
[ə]	Urban-middle class
[V:]	Urban-middle class
[Ø]	Both (unclear)
[i]	Rural/ Urban uneducated
[ɐ]	Urban

Coincidentally with Jiménez Sabater's work, Golibart also found contextual limitations on the occurrence of the semi-vocalization, for instance, [j], [ə] (and their weaker counterparts) and [V:] can occur after stressed or unstressed vowels with the exception of [i]; the realization [ə] occurs after [a], [o] and [u] (although replaced for the weaker realization [ɐ] after [u]) but not after [i] or [e]. As for [V:] and [Ø], they were found mostly in stressed syllables. Examples of such contextual limitations are shown in (6)¹³ for the realizations of [j] and [ə].

(6)	[j]	[ə]	Gloss
After stressed vowels	['pajke]	['paəke]	'park'
	['sej̃ðo]	*['seə̃ðo]	'pig'
	*['fij̃me]	*['fiəme]	'firm'
	['soj̃ðo]	['soə̃ðo]	'deaf'
	['kujso]	['kuəso]	'course'
		*['kuəso]	
After unstressed vowels	[pajke'sito]	[paəke'sito]	'small park'
	[sej̃'ðito]	*[seə̃'ðito]	'little pig'
	*[fij̃'maj]	*[fiə'maj]	'to sign'
	[soj̃'ðito]	[soə̃'ðito]	'completely deaf'
	[kuj'sito]	[kuə'sito]	'short course'

The author argues that the non-occurrences of the sequences *[ij], *[eə], *[iə] and *[uə] as in *['fijme], *['seə̃ðo], *['fiəme] and *['kuəso] respectively, are in most cases a direct result of the structure of the Spanish and Cibaëño diphthongs. That is, in Spanish the nucleus of a syllable

¹³ Taken from examples 2 and 3 (Golibart (1976:13)).

must be “either more open than the non-syllabic element or at least, have the same degree of openness” but it will never be more closed (1976:14). Considering the structure of falling and rising diphthongs, in the former, a syllabic nucleus or full vowel is followed by a non-syllabic element (vowel + glide) whereas the opposite is true for the latter, a non-syllabic element precedes a full vowel (glide + vowel). The sequences *[eə], *[iə] and *[uə] would correspond, then, to a rising diphthong since the first elements are more closed than the last ones; however, the data presented by Golibart suggest that in Cibaeno Spanish the resulting diphthongs must be falling when the semi-vocalization is realized as either [j], [ɤ], [j] or [ɤ]. Consequently, the sequences *[eə], *[iə] and *[uə] are not produced. For an explanation of diphthongs with vowels with the same degree of openness and the special case of [uɤ] see Golibart (1976:15).

As for the distribution of the vocalized forms, different realizations were associated with different social classes. For example, the form [j] was found in rural areas and in the urban lower class speakers in towns whereas [ɤ] was found in towns and in rural areas around urban centers. This latter realization could be regarded as an indication of social status that allows differentiating between urban and rural speakers. Their weaker counterparts [j] and [ɤ] followed a similar distribution. Regarding [V:] it occurred in towns, and [Ø] presented no regular frequency pattern. Geographically, all vocalized forms coexisted within the same regions.

This coexistence, according to Golibart and consistent with Jiménez Sabater (1975), is the outcome of “the tendency of the Spanish language to eliminate gradually its checked syllables in favor of open syllables” (1976:17). He claimed that in CS the different realizations of the semi-vocalization are successive stages implemented in order to achieve such outcome, starting with the vocalic segment [j] which “serves the purpose of maintaining in the word the impressionistic “phono-structural” balance” (1976:17) followed by a second stage with a more open glide [ɤ].

Later on, there is a stage in which there is a lengthening of the vowel preceding the vocalized liquid and finally, the process is completed by dropping the vocalized segment.

The four stages were supposedly developed just in the Dominican Republic since it was the only place where more than one realization of the semi-vocalization was found (for a discussion about the existence of semi-vocalization in the Dominican Republic, see Golibart (1976)). This claim is not accurate, however, since in other Spanish dialects such as the Chilean dialect, it is also possible to find more than one phonetic realization of this process (see Oroz (1966); Martínez Gil (1997); Piñeros (2001, 2002) and references therein).

As was mentioned above, this author also proposed a Generative Grammar of the Cibaño Semi-vocalization. Among the main aspects of the grammar are the assumptions that the speaker always vocalizes the liquids and that there is only one realization of semi-vocalization, that which corresponds to [j]. The domain of application of semi-vocalization is syllable-final whether the liquid is located within a word or word-finally in stressed or unstressed syllables. Some examples are given in (7).

(7)	Standard Dialect	Cibaño	Gloss
Stressed	['karmen]	['kajmen]	‘Proper name’
	['serka]	['sejka]	‘near’
	['pjerna]	['pjejna]	‘leg’
	['selda]	['sej ða]	‘cell’
	['kur ða]	['kujða]	‘bend’
	['kulpa]	['kujpa]	‘blame’
Unstressed	[karmen'sita]	[kajmen'sita]	‘Proper name (diminutive)’
	[ser'kita]	[sej'kita]	‘very near’
	[pje'r'nita]	[pjej'nita]	‘small leg’
	[sel'dita]	[sej' ðita]	‘small cell’
	[kur'ðita]	[kuj'ðita]	‘short bend’

In (9a) the rule application results in the expected outputs, however, in (9b) undesired outputs are obtained. In the case of *dormir* [dormir] ‘to sleep’ the liquid in word-final position is always dropped regardless of the following segment (e.g., *dormir mucho* [doj'mi 'muʎo] ‘to sleep a lot’, *dormir en la cama* [doj'mi en la 'kama] ‘to sleep on the bed’). When the liquid is in an unstressed syllable in final position, as in *azucar* [a'sukaɾ] ‘sugar’, the segment is also dropped in the phonetic form (e.g., *azucar crema* [a'suka 'krema] ‘brown sugar’, *el azucar es buena* [el a'suka e 'bwena] ‘sugar is good’).

Since the application of the rule produces all forms in the examples above, including the non-felicitous forms *[doj'mij], *['fijme], *['asukaj], *['konsuj], *[ej 'aho] and *[ej a'rito], among others, the author argued that besides this rule it was necessary to add not only the application of a rule to predict syllable boundaries (already in place in the language and that would avoid including more complex rules in the grammar) but also some mechanisms that would account for the exceptions. He suggested the application of a late rule that would eventually delete the undesired segments in the cases in which there is a systematic deletion. See Golibart (1976:51-57) for a complete account of this.

As for the exception in c) above regarding the liquid in an unstressed monosyllable followed by a word beginning with either a stressed or unstressed vowel, there are two scenarios: in the first one, when the liquid is in a stressed monosyllable, semi-vocalization occurs despite the following segment but if in an unstressed syllable, then, a consonant must follow. Examples in (10) show the processes.

(10)	/el en'tro/	/el 'karo/	/kwál es la tuya/	
	j	j	j	Rule (8)
	['ej en'tro]	[ej 'karo]	['kwaj e la 'tuya]	

With regards to the second scenario, Golibart considered the syllable-structure in which semi-vocalization occurs, and proposed that a liquid in a unstressed monosyllable (a determiner or preposition) can be re-syllabified and become part of the next syllable onset, thus preventing it from being vocalized since the rule only applies to coda position. He stated that in this case “...vocalization does not take place at all” (1976:51). He assumed that the unstressed monosyllables are function words. When function words are followed by a vocalic segment, the conditions are given for the syllable-boundary rule to apply, resulting in the re-syllabification of the liquid, so it is no longer part of the semantic word but rather part of the onset position of the following phonetic word (1976:57).

Golibart’s proposal was based on data in which he did not find evidence for assuming that in such environment semi-vocalization was possible. However, newer data indicate that it is indeed possible to find semi-vocalization of a liquid in a non-stressed monosyllable when it is followed by a non-consonantal segment as in *el agua* [ej 'aɣwa] or *por eso* [poj 'eso] (see Núñez-Cedeño and Acosta (2011)). Although his explanation of the syllable-boundary rule application and re-syllabification was applicable to his data set (where semi-vocalization in such context did not occur), in light of the new available data it is necessary to consider a different approach to semi-vocalization. Extending his approach in monosyllables to state that the domain of application of the rule that produces semi-vocalization is syllable final (and eventually drawing upon other mechanisms to explain the exceptions) could account for this.

One of this author’s last remarks aims directly at the purpose of this dissertation. He noted that the semi-vocalization rule is variable. That is, speakers may not always vocalize and the only realization of semi-vocalization is not [j]. Since it is variable the rule must be re-formalized in order to make it non-obligatory and to allow for realizations other than [j]. More importantly for

the purposes of this study, he suggested that it was necessary to conduct other empirical studies of the environments in which semi-vocalization occurs “...which might act as variable constraints so as to determine which ones hinder the application of the rule and which ones favor it.” Referring to what determines the occurrence of the different types of realizations of the semi-vocalization, he added that besides extra-linguistic factors such as level of education, socio-cultural background, etc. “it seems plausible to assume that the constraints that operate in this case are of a phonological nature” (1976:59). These aspects of semi-vocalization will be pursued here; this study will seek to determine using a variationist, multidisciplinary approach, the intra and extra-linguistic factors that constrain the speakers’ language choices as to the occurrence of semi-vocalization concerns.

2.1.3. **Alternative Syllable Structure and Prosodic Accounts of Liquid Gliding**

Most of the research conducted after Golibart (1975) introduced different proposals relying on his data to account for semi-vocalization in Cibaean Spanish (see also Alba (1979)). As noted above, the earlier data showed that the semi-vocalization of liquids in unstressed monosyllables followed by a vowel was not possible, but later data shows that it does indeed occur. Guitart (1981) draws upon Golibart’s data to give a different account within the generative framework; he looks at the grammatical aspects of the semi-vocalization process, to which he refers to as *liquid gliding*, since the phonetic realization of the semi-vocalization is never a vowel. Similar to Golibart he assumes that liquid gliding is a variable process, with different frequency patterns among speakers from dissimilar socio-cultural backgrounds in different speech styles. Unlike Golibart, Guitart sought to show that semi-vocalization depends neither on stress nor on the syllable structure but rather on the presence of certain syntactic boundaries.

Before accounting for the process, the data description in Guitart (1981) shows yet again contextual restrictions that are given below:

- a) liquid semi-vocalization is obtained after a vowel other than /i/ in word-internal position before a consonant (e.g., *carta* ['kaj̞ta] for ['kaɾ̞ta] 'letter');
- b) word-finally when it is in an oxytone word (e.g., *papel blanco* [pa'pej 'blaŋko] for [pa'pel 'blaŋko] 'white paper');
- c) in stressed monosyllables (e.g., *el avisa* ['ej aβisa] for ['el aβisa] 'he notifies' and,
- d) in unstressed monosyllables followed by a consonant (e.g., *el día* [ej 'ðja] for [el 'ðja] 'the day'; *el arte* [el 'aɾ̞te] and not *[ej 'aɾ̞te] 'art').

As for the deletion process of the liquid, it is deleted in coda position word internally or word finally after /i/ (e.g., *sirve* ['siβe] and not *['siβ̞e] 'it serves/functions'; *salir* [sa'li] and not *[sa'lij] 'to go out') and word-finally when the liquid is not in an oxytone or monosyllable (e.g., *cancer* ['kanse] for ['kanser] 'cancer'; *azucar* [a'suka] for [a'sukar] 'sugar'). Guitart, along with Golibart (1976), argues that the glide obtained from the liquid gliding is elided, rather than the liquid itself.

He proposed two rules to account for glide deletion in Cibaean Spanish. The first one, labeled *Glide Deletion I* shown in (11) applies to the first type of deletion. According to both authors it is motivated independently from the Cibaean data by the fact that there is not a sequence *[ij] in Spanish in general, thus it easily predicts the outcome of a form like [bi'βis] versus *[bi'βjis] in dialects with second person plural forms (familiar). The derivations in (12) illustrate how such rule works.

- (11) Glide Deletion Rule I
 $j \rightarrow \emptyset / i \text{ ______}$
- (12)
- | | |
|-------------------------------|----------------------------------|
| /sirbe/ | Underlying form |
| si ̞ j ̞ be | Liquid gliding/semi-vocalization |
| si ̞ be | Glide Deletion I |

With regards to the second type of elision referred above, the rule in (11) cannot be held responsible for the deletion in these cases due to the environment in which it applies, that is, word-final when the liquid is not in an oxytone or monosyllable, regardless of the previous segment. Then Guitart suggests that it is necessary to add another rule, the *Glide Deletion II* shown in (13), to be applied after stress assignment and that eventually will delete glides derived from liquids in word final position in polysyllabic non-oxytones. Such a rule attempts to preserve the word-structure condition present in Spanish that requires that no sequences of unstressed vowels plus glides at the end of polysyllabic words are obtained (e.g., *convoy* [kom'boj] not ['komboj] 'convoy'; *jersey* [xer'sej] not ['xersej] 'jersey'). Since the rule is active already in the language, its motivation is also independent from the mere inexistence of such sequences in CS.

- (13) Glide Deletion Rule II
 $j \rightarrow \emptyset / Z [+syl] W [+syl, -stress] \text{ ______ } \#$

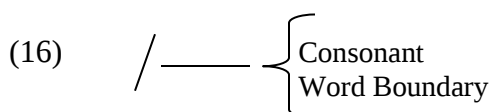
The rule in (13) indicates that [j] must be deleted in word final position in a polysyllabic word, provided that it is preceded by an unstressed vowel. The derivation in (14) illustrates the derivational process for the Glide Deletion II rule.

- (14)
- | | |
|----------|----------------------------------|
| /kanser/ | Underlying form |
| 'kanser | Stress assignment |
| 'kansej | Liquid gliding/semi-vocalization |
| 'kanse | Glide Deletion II |
| ['kanse] | Phonetic/surface form |

In contrast to Golibart, Guitart maintains that semi-vocalization is independent of both stress and syllable-structure. Basing his argument on the data presented below in (15), he argues that since gliding occurs at the end of unstressed monosyllables when they are followed by a consonantal segment (15c.), the essential factor must be the environment in which the liquid is in, and not stress. Another fact that he claims supports his idea is that semi-vocalization occurs also in polysyllabic word regardless of the stress of the preceding segment (15d.).

(15)	Underlying form	Phonetic form	Gloss
a.	/el abisa/	['ej a'βisa]	'he notifies'
b.	/el abiso/	[el a'β iso]	'the notice'
c.	/el bino/	[ej βino]	'the wine'
d.	/bolber/	[boj'βej]	'to return'

He also maintains that the environment for liquid gliding is not syllable final and that even though syllabification seems to support that idea¹⁴, the actual environment for liquid gliding is that shown in (16).



It cannot be syllable final, because the syllabification for the forms /el abisa/ and /el abiso/ should not be different in a derivational approach (see derivation in (17) below) but rather the insertion of the syllable boundary should be in the same place (before or after the liquid gliding) for both forms. According to Guitart, additional evidence for the idea that syllable boundary is not the environment for semi-vocalization or liquid gliding comes from two facts: first, in general Spanish the liquid of /el abisa/ is syllabified to the onset of the next syllable, as in /e.la.bi.sa/ and second, since semi-vocalization is a variable process in Cibaño, a speaker can produce this form, and therefore maintain the syllabification followed by general Spanish, which suggests that liquid

¹⁴ For example, liquids and consonant appear always in separate syllables as in /par.ke/ par.ke; a liquid in an unstressed monosyllable is usually resyllabified to the onset of the next syllable as in /e.l a.βi.so/ e.la.bi.so but when it is semi-vocalized then the glide and the precedent vowel remain in the same syllable as in /el.a.bi.sa/ ej.a.bi.sa or /par.ke/ paj.ke).

gliding must precede syllable insertion rather than follow it, in which case syllable boundary cannot be the environment for the process.

(17)	a. /el abisa/	/el abiso/	Underlying form
	b. 'el a'bisa	el a'biso	Stress assignment
	c. el.a.bi.sa	e.la.bi.so	Syllable insertion
	d. ej.a.bi.sa	-----	Liquid gliding
	e. [ej aβisa]	[e la'βisa]	Phonetic form

The author notes the syntactic role of the lexical items and proposed a classification between words and proclitics, such as articles and prepositions. According to him, the liquid in pronouns such as *él* ‘he’, may vocalize because the element has word status whereas the liquid in the determiner *el* ‘the, masculine, singular’ does not undergo semi-vocalization due to the fact that the element does not have word status, thereby allowing the liquid to be re-syllabified and form part of the next syllable onset as shown in (18) below. In other words, semi-vocalization is prevented from happening in the case of article + noun or preposition + object because the liquid may be in a morpheme boundary (+) and not in a word boundary (#), the context that triggers semi-vocalization. The derivation in (18) illustrates the process. Nonetheless, in phrases like *el vino* /el bino/ ‘the wine’, semi-vocalization does occur due to the fact that the liquid is followed by a consonant.

(18)	Underlying form	Phonetic representation	Gloss
	a. /el abiso/	['ej#a. βi.'so]	‘he warned’
	b. /el abiso/	[e+la'βi.so]	‘the notice’

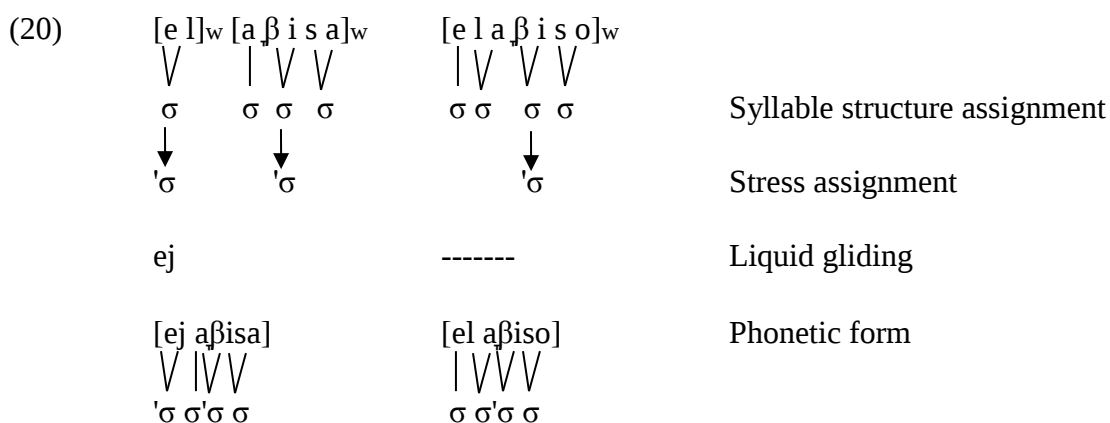
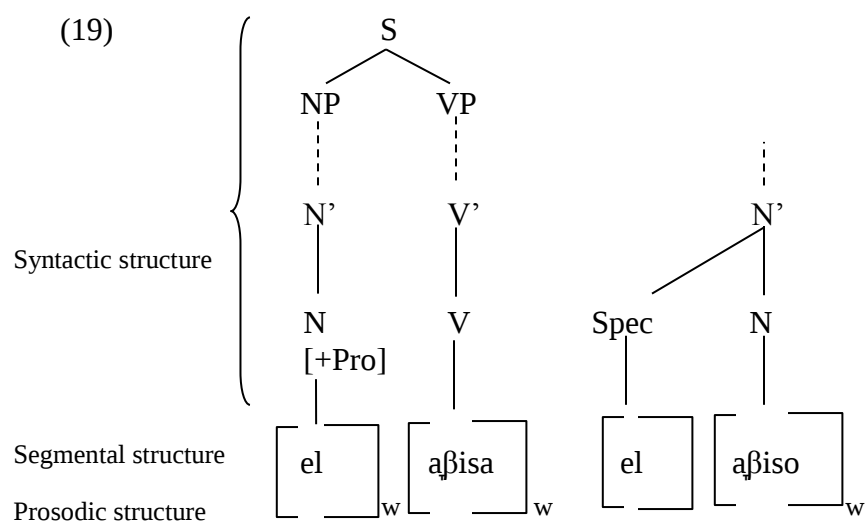
Guitart’s proposal is very well articulated and in fact, it accounts for the cases of semi-vocalization that occurred in the data set taken from Golibart (1976), although it may be a less economical solution because it utilizes two different morphological implements (morpheme boundary and word boundary) for the description of the data instead of giving a unified account

for the process. Again, it is worth mentioning that there is new evidence showing that both Golibart's study and subsequent studies based on his proposal such as Guitart's and Harris' (see below) are rather limited in their scope, since the newer data have shown that the semi-vocalization process is extended to more contexts than the ones considered in their studies.

An alternative analysis of liquid gliding is provided in Harris (1983) who proposed that semi-vocalization occurs in the syllable rhyme. This author considers that Guitart's account "...constitutes a direct challenge to the claim that analyses that depend on this environment can always be reformulated with equal or greater descriptive adequacy in terms of syllable structure" (1983:49). The environment he refers to is the one shown in (16) above in which, according to Guitart, liquid gliding occurs. Harris discusses the adequacy of conducting an analysis relying on such an environment and claims that even though it could be granted recognition in linguistic theory in so far as it is empirically justified (therefore Guitart's approach would be adequate), data in Spanish suggest that an approach considering intrasyllabic rather than extrasyllabic constituent organization is more descriptively adequate. He adds that "...when intrasyllabic organization is adequately represented, the location and nature of syllable boundaries are automatically provided" (1983:5).

Guitart then proposes that an analysis based on prosodic structure rather than on syntactic structure is more descriptively adequate. Therefore, he appeals to the prosodic structure of the phrases to provide a reinterpretation of the clitic status of the unstressed monosyllables. In accordance with Selkirk (1978), he suggests that semi-vocalization applies only to 'prosodic words' (such as pronouns) and not to function words (such as proclitics). His motivation (although not his approach) is somehow similar to that of Guitart. That is, in consecutive prosodic words semi-vocalization may apply because there are two separate words and the liquid segment

is not resyllabified (but rather remains in coda position), whereas in function words the liquid segment is resyllabified and relocated from coda to onset position, where it is not sensitive to semi-vocalization. He concludes that “it is within prosodic structure, not syntactic structure that the domain of prosodic phenomena, like stress and syllabification, is staked out” (1983:49). The diagram in (19) and the derivation in (20) show the prosodic structure proposed by Harris for the examples in (15) above.



Harris effectively proposed an account that intends to meet the theoretical challenge of providing an interpretation with more descriptive adequacy than the ones presented before. This account is more appropriate in that it just appeals to one tool, the prosodic structure, to analyze liquid gliding, providing a simpler and more economical account. However, considering the limitations of the data he relied on (see above), an extended explanation of how his approach works is necessary for the cases in which semi-vocalization is obtained in liquids of unstressed monosyllables when followed by a vocalic segment.

2.1.4. **A Feature Geometry Approach**

Appealing to a different perspective within the generative framework, Núñez Cedeño (1997) looks at liquid gliding in Cibaëño from the perspective of the Feature Geometry Theory. The study briefly discusses both the liquid gliding process and constraints in its application, as well as the arguments put forward by Guitart (1981) and Harris (1983). The author points out that it is impossible to get forms like *[fijmaj] due to the general principle in Spanish that prohibits a sequence of identical melodies *[ij] within the same morpheme (known as Obligatory Contour Principle (OCP)¹⁵, and not due to the application of a deletion rule. I will not deal with that section of the article here but the interested reader is referred to Núñez Cedeño (1997:144-147).

In order to account for liquid gliding, the author contrasts the root node (McCarthy (1988); Halle (1992, 1995)) and the bare-foot hypotheses (Keyser and Stevens (1994)) from the Feature Geometry Theory. In the former, a root tier (that characterizes the phoneme) contains the features [consonantal] and [sonorant] which branches into class and articulator nodes that in turn will separate into terminal features. In the latter, features are not specified in the root node but rather they are organized hierarchically. The root node contains two subsystems called mini-vocal tracts,

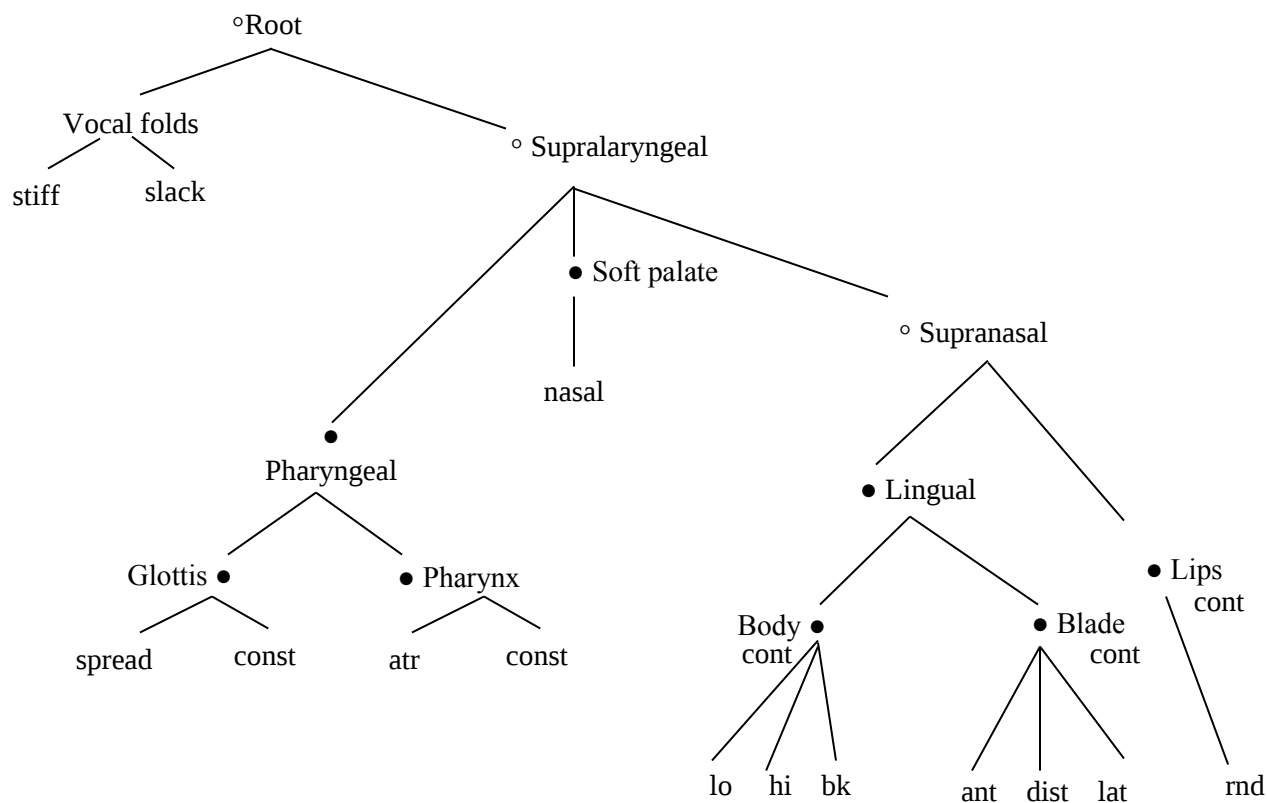
¹⁵ See Clements (1990) and Parker (2003) for an account of sonority.

the supranasal and the supralaryngeal, which dominate the articulators that produce [+consonantal] and [-consonantal] sounds respectively.

Núñez Cedeño argues that McCarthy-Halle's hypothesis does not properly explain the real nature of the semi-vocalization process but instead provides an unnecessarily complex account since liquid gliding is obtained as a result of "...a neutralization rule in which a [+consonantal] segment in a rhyme becomes [-consonantal]" (1997:143) which "...fails to reveal the interconnection existing between the articulatory production of a liquid and a glide" (1997:147). On the other hand, the author proposes that Keyser and Stevens' hypothesis accounts for liquid gliding more straightforwardly as the articulatory deactivation of muscular activity that is produced in the vocal tract. In other words, an articulator activates in a mini-tract while at the same time another one deactivates.

The three mini-tracts in the vocal tract in Keyser and Steven's theory are in control of the production of both vowels and consonants. The mini-vocal tracts are defined by a dominant node each (root, supralaryngeal and supranasal) that branches into different anatomical areas. In (21) a tree representation is given showing the mini-tracts as well as the anatomical regions and terminal features they dominate. Vowels are produced under the root mini-tract and consonants and glides under the supralaryngeal and supranasal nodes. Núñez Cedeño argues that the superiority of this account (as opposed to that of McCarthy-Halle) lies in the fact that the mini tracts are associated with specific acoustic properties.

(21)



To account for liquid gliding in Cibaeno Spanish, the author focuses on the supranasal node, a dominant articulator for consonants and specifically for liquids. The feature [+continuant] is adhered to the blade of the tongue; the dominant articulator for the [sonorant] feature is specified for laterals by a redundancy rule and for rhotics by attaching it to the articulator. In the process, the feature [+/-lateral] is lost, making the supranasal node inaccessible/ inactive. Then, the supralaryngeal node (dominating for glides) assumes its functions, resulting in the glide [j]. The rule in (22) shows how liquid gliding is attained.

(22)

Liquid Gliding

Deactivate the feature [+/-lateral] and mark the features [+hi, -bk] for the body of the tongue node.

Again, according to Núñez Cedeño, this approach is preferable because the process “is viewed as a nodal movement from one lower level within the tree to an upper level” (1997:158) and there is no need for it to be stipulated as in McCarthy-Halle’s account.

In conclusion, this article provides an account of liquid gliding that is based on the acoustic properties of the segments and therefore, it naturally predicts that the expected outcomes are obtained by activating a mini-tract that dominates certain terminal features. However, it does not touch directly on the non-occurrence of liquid gliding in unstressed monosyllables that are followed by vocalic segments, but accepts Harris’ (1983) explanation of the process.

2.1.5. **Liquid Gliding as a Type of Opacity**

More recently, Baković (2007) addresses the topic of liquid gliding by analyzing it as a type of *over-application opacity*¹⁶, whereby a process appears to have applied in unexpected contexts on the surface. The article discusses several types of obscured generalizations, comparing them within the frameworks of rule-based serialism and Optimality Theory¹⁷ (henceforth SPE and OT, respectively) and examining how such generalizations can be analyzed using each approach. In SPE the generalizations are expressed in terms of ordered rules whereas in OT they are expressed in terms of ranked constraints. Drawing upon Kiparsky (1971, 1993) and McCarthy (1999), he focuses on two types of opacity— under-application (non-surface-true) and over-application (non-surface-apparent) —while identifying the strengths and weaknesses of SPE and OT in the analysis of the latter type. Baković provides the surface diagnosis for obscured rule generalizations from Kiparsky (1971, 1993) shown in (23) below. Kiparsky’s main hypothesis is that opaque generalizations are harder to learn than transparent generalizations.

¹⁶ See the definition provided by this author of *opaque processes* in (23) below.

¹⁷ For an account of Optimality Theory, see Kager (1999), Prince and Smolensky (2004), McCarthy (2008) and, Colina (2009). See also Díaz-Campos and Colina (2006) for an OT account of the acquisition of the school variety of Venezuelan Spanish.

- (23) A process P of the form $A \rightarrow B / C \text{ ______ } D$ is opaque to the extent that there are surface representations of the form:
- a. A in the environment $C \text{ ______ } D$, or
 - b. B derived by P in environments other than $C \text{ ______ } D$.

According to what is stated in (23), A should always become B but only in the environment ($C \text{ ______ } D$), therefore, if there are occurrences of A (as opposed to B) in such an environment (23a), then the stated generalization is not true of the surface and there is an *under-application* of P since it did not apply everywhere it was expected to. On the other hand, if A becomes B in an environment that differs from $C \text{ ______ } D$, (23b) then the stated generalization is not apparent from the surface and there is an *over-application* of P, since it applied in places where it was not expected to.

The under-application corresponds to the counter-feeding rules in SPE whereas the over-application corresponds to the counter-bleeding rules. In Baković's (2007:2) words, in counter-feeding rules¹⁸ "Q creates an output to which P could apply." However, since P is ordered before Q "the generalization expressed by P is not true of the surface strings of the language" whereas in counter-bleeding rule orders "Q destroys strings to which P could apply, but because P is ordered before Q, the generalization expressed by P is true of the surface strings of the language but the reasons for P's application are not apparent from those surface strings."

Liquid gliding in Cibaño is analyzed as a case of over-application opacity that he labeled *concealed free ride* (a subset of a more general class named *free rides*) and may be analyzed either as a special case of self-destructive feeding or cross-derivational feeding in SPE or as a response to markedness constraints that prohibit pre-consonantal or word final liquids in OT. The

¹⁸ See Roca (1994) for a discussion of feeding, bleeding, counter-feeding and counter-bleeding rules.

author emphasizes that, according to the definition of opacity given in (23) above, the generalizations that come from *concealed free rides* should not be considered opaque (see below).

Drawing on Golibart (1976) and Guitart (1981), Baković analyzes liquid deletion as a two-step process, which in SPE constitutes two ordered rules (i.e., a liquid gliding rule that in turn feeds a glide deletion rule). Like Golibart and Guitart, Baković considers glide deletion to be motivated by two conditions: one phonotactic and one prosodic. The phonotactic condition systematically excludes surface sequences of a high vowel plus homorganic glide $*(ij, ji, uw, wu)$ in Spanish (and therefore is independently motivated) and the prosodic condition deletes glides at the end of polysyllabic words when they are preceded by unstressed vowels (the independent motivation for deletion also comes from the absence of such glides in Spanish).

The two-step process glide deletion in Cibaeno is an example of a *concealed free ride*. As Baković (2007:31) puts it, when in SPE “...an analysis of some phonological pattern involves input-output mappings of the form $/X/ \rightarrow [Z]$, and these mappings can be broken down into two serially ordered derivational steps, $/X/ \rightarrow |Y| \rightarrow [Z]$ ” and there is independent motivation for the step $|Y| \rightarrow [Z]$ “...then the process responsible for the $/X/ \rightarrow |Y|$ step can ‘take a free ride’ on the independently motivated process responsible for the $|Y| \rightarrow [Z]$ step.” In this sense, the process $/l, \text{ɾ}/ \rightarrow |j| \rightarrow \emptyset$ in Cibaeno Spanish constitutes a case of a *concealed free ride* (a special case of self-destructive feeding) because glide deletion conceals the results of liquid gliding. Thus, although it was necessary to feed the deletion rule, the result of the step $/l, \text{ɾ}/ \rightarrow |j|$ corresponding to liquid gliding is destroyed by $|j| \rightarrow \emptyset$ or glide deletion. In (24) the ordered rules of liquid gliding and glide deletion are given.

(24) Liquid gliding feeds prosodically-motivated glide deletion

Underlying Form	/kanser/	/re'bolber/
$r, l \rightarrow j / __ \left\{ \begin{smallmatrix} C \\ \# \end{smallmatrix} \right\}$	l'kansej	l're'bojbej
$j \rightarrow \emptyset / \sigma C_0 \tilde{V} __ \#$	l'kanse	l're'bojbe
Surface Form	['kanse] 'cancer'	[re'βojβe] 'revolver'
	cf. /kansar/ $\rightarrow$ [kan'saj] 'to tire'	cf. /rebolber/ $\rightarrow$ [reβoj'βej] 'to stir'

In a cross derivational analysis, glide deletion is “a back-up strategy to gliding” (2007:32), that is, liquids become glides in the proper environment unless any of the two conditions that motivate deletion is present. In short, liquids delete because gliding is blocked. In Figure 3 the cross-derivational analysis provided by Baković is shown.

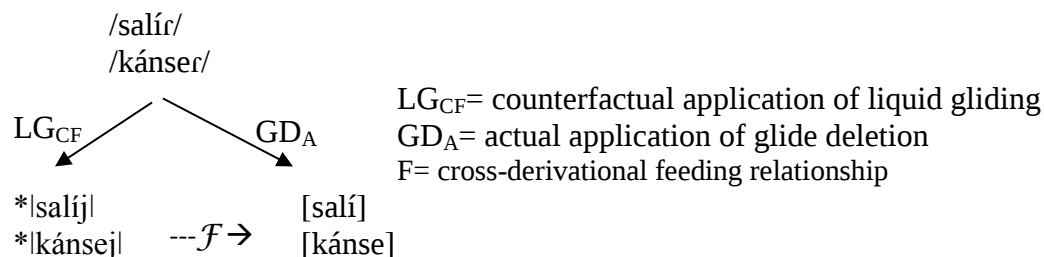


Figure III. Cross-derivational Feeding in Cibaño (Baković (2007)).

In an OT analysis, the author proposes the top ranked markedness constraint $N_{O-r,l}\{C,\#\}$ against pre-consonantal or word-final liquids as well as the faithfulness constraints MAX-C ranked above IDENT(x) to ensure obtaining gliding (and not deletion) as the default response. In IDENT(x) the x would be the feature $[\pm\text{consonantal}]$ that will distinguish between liquids and glides, therefore, IDENT(cons). The tables in (1), (2) and (3), show how liquid gliding and deletion are obtained. In the case of liquid gliding, it is the default result if the phonotactic and prosodic

conditions are not present. To account for deletion, two more constraints are considered: NO- $\underline{\text{VG}}$ that explains deletion due to the phonotactic facts (no high vowel followed by a palatal glide), and NO- $\sigma\text{CV}\tilde{\text{j}}\#$ when it is attributable to prosodic conditions (absence of polysyllabic words with no final stress ending in a glide). Again, both conditions for deletion are already present in the language; therefore, they are not only dialect particular.

TABLE I. GLIDING BY DEFAULT (OT)

Input: /papel/ ‘paper’	$\text{N}_{\text{O-r,l}} \{C,\#\}$	MAX-C	IDENT(cons)
a. [papél]	*!		
b. $\rightarrow$ [papéj]			*
c. [papé]		*!	

TABLE II. DELETION UNDER PHONOTACTIC DURESS

Input: /salir/ ‘to go out’	$\text{N}_{\text{O-r,l}} \{C,\#\}$	NO- $\underline{\text{VG}}$	MAX-C	IDENT(cons)
a. [salír]	*!			
b. [salíj]		*!		*
c. $\rightarrow$ [salí]			*	

TABLE III. DELETION UNDER PROSODIC DURESS

Input: /kánser/ ‘cancer’	$\text{N}_{\text{O-r,l}} \{C,\#\}$	NO- $\sigma\text{CV}\tilde{\text{j}}\#$	MAX-C	IDENT(cons)
a. [kánser]	*!			
b. [kánsej]		*!		*
c. $\rightarrow$ [kánse]			*	

Finally, Baković suggests that liquid gliding and gliding deletion in Cibaëño should not be considered opaque according to the definition of opacity given in (23). Since on the surface there are no glides resulting from liquid gliding in environments different from the expected ones (pre-consonantly and word-finally), liquid gliding does not overapply. Nor does it underapply since no instances of liquids are found pre-consonantly or word-finally. On the other hand, glide deletion does not underapply because there are no glides in any of the two deletion environments. Likewise, it does not overapply because there are no deleted segments (resulting from glide deletion) in environments different from the two deletion environments.

Baković finishes by noting that it is unclear “...whether the obscured generalizations involved in *concealed free rides* are easier or harder to learn than other generalizations” which is the main assumption for the opacity theory. Therefore “it is unclear whether they should be considered opaque” (Bakovic, 2007: 36). It is also unclear whether the definition of opacity should be modified in order to accommodate the class of *concealed free rides*.

To conclude, Baković (2007) presents a coherent analysis of liquid gliding and glide deletion as two interacting processes and provides an interesting discussion about both a serial based and an OT approach. It also extensively deals with liquid derived glide deletion as a process closely related to liquid gliding. As the author suggests, however, it is necessary to conduct more research in order to determine whether liquid gliding and deletion should be considered opaque. Even though he adopts Guitart and Golibart’s ideas about the domain of application of semi-vocalization and assumes, following Guitar’s position, the existence of two conditions restricting liquid gliding, his account does not specifically handle the grammatical or syntactic roles of the lexical items where gliding occurs. For the purposes of his article, nonetheless, he achieved his

goal of illustrating the interaction between the liquid gliding and glide deletion processes by analyzing them from two different theoretical perspectives.

2.1.6. A New Prosodic Approach

Núñez Cedeño and Acosta (2011) suggest a new prosodic account for semi-vocalization in Cibaëño Spanish, presenting an alternative solution to what is proposed in Harris (1983). Recall that Harris claimed that semi-vocalization only applies to liquids in words whose status is that of prosodic words (Pw_d), thus, the different results concerning liquid gliding in oppositions like *él avisa* ‘he advises’ versus *el aviso* ‘the notice’ has to do with differences in their prosodic structures. The liquid of the pronoun in the former glides because it constitutes a single prosodic word [[*el*] Pw_d [*a. βí.sa*] Pw_d] whereas the liquid of the latter is just a functional word (Fnc), part and parcel of a prosodic word only when combined with a noun like *aviso*, resulting in the structure [[*e.la.βí.so*] Pw_d]. Notice that in the latter case, the liquid is being resyllabified to the onset of the next syllable, evading the application of gliding.

The results in Núñez Cedeño and Acosta (2011) support Harris’ (1983) proposal only partially. Consider the data they provide, in (25) below:

(25)	Underlying form	Cibaëño	Gloss
a.	/el abiso/	[<i>ej aβi'so</i>]	‘he warned’
	/el alimenta la gayina/	[<i>ej ali'men.ɬa la.ɣa'yina</i>]	‘he feeds the hen’
	/el eɬfa agwa en la ti'naha/	[<i>ej 'eɬfa 'a.ɣwa en la.ɬi'naha</i>]	‘he poured water into the jar’
	/el ase karbon/	[<i>ej 'ase kaj'βon</i>]	‘he produces charcoal’
	/el ordeña la baka/	[<i>ej oj' ðeɲa la βaka</i>]	‘he milks the cow’
	/el unde el kolin/	[<i>ej 'un.ɰde ej ko'liŋ</i>]	‘he sinks the machete’
b.	/el patjo/	[<i>ej 'pa.ɬjo</i>]	‘the yard’
	/el tronko/	[<i>ej 'ɬronko</i>]	‘the tree trunk’
	/el kapatas/	[<i>ej kapa'ɬa</i>]	‘the foreman’
	/el ɰibo/	[<i>ej ɰiβo</i>]	‘the goat’
	/el bidón/	[<i>ej βi' ðon</i>]	‘the drum’
	/el goyeho/	[<i>ej.ɣo'yeho</i>]	‘orange peel/skin’

/el djente/	[ej 'ðjen.ɟe]	‘the tooth’
/el laso/	[ej 'laso]	‘the knot’
/el nasio/	[ej na'sio]	‘the skin scab’
/el maʃete/	[ej ma'ʃe.ɟe]	‘the machete’
/el sintiyo/	[ej sin'ɟiyo]	‘the headband’
c.		
/el abono/	[ej a'βono]	‘the fertilizer’
/el agwa/	[ej 'a.ɣwa]	‘the water’
/el asucar/	[ej a'suka]	‘the sugar’
/el elado/	[ej e'la.ðo]	‘the ice cream’
/el ielo/	[ej 'jelo]	‘the ice’
/el igado/	[ej 'i.ɣa.ðo]	‘the liver’
/el weso/	[ej 'weso]	‘the bone’
/el umo/	[ej 'umo]	‘the smoke’
/el ilo/	[ej 'ilo]	‘the thread’
d.		
/por igado/	[poj 'i.ɣa.ðo]	‘for/instead of liver’
/por jelo/	[poj 'jelo]	‘for/instead of ice’
/por eso/	[poj 'eso]	‘for that’

As can be seen in (25) above, the data show that semi-vocalization applies to liquids in syllable final position regardless of their prosodic structure. Whether the liquid is in the coda of a Pwd as in the pronoun *él* ‘he’ (e.g., /él abisa/ → [ej a'βisa]) or in the same position in a Fnc like an article or preposition (e.g., /el abiso/ → [ej a'βiso]; /por eso/ → [poj 'eso]), semi-vocalization applies. These results are compatible with those presented in Andrade (1930), which also showed that semi-vocalization in such context was possible (see Núñez Cedeño and Acosta (2011) and Andrade (1930) for a more complete account and additional data). In the other studies mentioned above, however, the authors were not aware of the existence of such data and thus, such a scenario was not considered when they presented their proposals.

Núñez Cedeño and Acosta (2011) showed that in Cibaeno Spanish there are cases of liquid semi-vocalization in the syllable rhyme of (a) a Pwd when it is followed by a stressed or unstressed vowel initial verb; (b) a Fnc that is followed by a consonant initial word and, (c) a Fnc that precedes a stressed or unstressed vowel initial word. The first two cases support both Guitart

and Harris proposals; however, the last case contradicts their findings. Considering that the scope of such accounts were not comprehensive enough, the authors sought to supersede Harris' proposal with that of Selkirk (1996), in which there is a clear distinction between Content Words and Function Words. The content words belong in the phonological level and are represented at the syntactic level; they correspond to the referred Pwd and are dominated by the node of the Phonological Phrase (Pph). The function words, on the other hand, are a closed class (e.g., determiners, prepositions, conjunctions, complementizers, etc.) and are dependent on the prosodic word but do not have the status of a Pwd, hence, they are not represented at the syntactic level.

The representations for both Pwd and Fnc are given in (26) below. In the surface forms in (26a) LEX corresponds to verbs, nouns, adjectives and adverbs introduced at the morpho-syntactic level whereas the *lex* stands for the phonological content of LEX. In (26b) the proclitic is fused with *lex* and then dominated by Pwd, which in turn, will be dominated by the node of the phonological phrase (Pph).

(26)	a. Surface Form	[LEX LEX]
	Phonological Form	((<i>lex</i>)Pwd (<i>lex</i>)Pwd)Pph

b. Proclitic: (Fnc (*lex*)Pwd)Pph

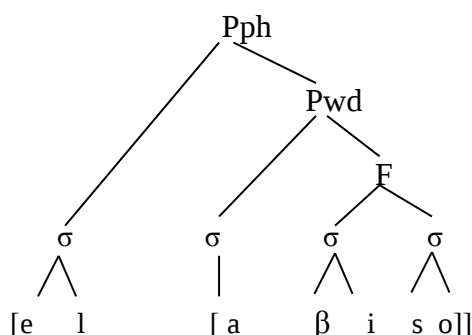
Selkirk (1996:190) suggests that phrases consist of a prosodic structure hierarchically organized as in (27). Traditionally, in this hierarchy nodes are exhaustively dominated; namely, a Pwd dominates a Foot and it dominates a syllable, but the opposite order does not occur (e.g., a syllable dominates a foot). In Spanish, however, Selkirk claims that such order is not strictly followed since there are many cases in which a syllable can be directly dominated by a Pwd, as in the cases of syllables with no foot.

(27)

Prosodic Hierarchy	
Utterance or Phrase	P
Intonational Phrase	IP
Phonological Phrase	Pph
Prosodic Word	Pwd
Foot	F
Syllable	σ

In (28) the structure of the phrase *el aviso* ‘the notice’ is provided. Since it is possible to have a structure in which nodes are not exhaustively dominated, in (28) the proclitic associates directly with the phonological phrase without having to be dominated by a prosodic word (as opposed to the noun which is exhaustively dominated in this case). Núñez Cedeño and Acosta claim that this structure implies that the article will behave as a proclitic but now as a free element independent from the noun. Therefore, it can undergo the normal syllabic construction and the liquid in the rhyme will be ultimately subject to semi-vocalization.

(28)



In conclusion, Núñez Cedeño and Acosta (2011) present an account that is more appropriate than the preceding ones because the scope of their analysis is wider and they show that the process is more general than previously reported. Also, their solution is economical in that it predicts the results appealing to the prosodic structure as the only tool employed in the analysis without having to refer to several rules.

Finally, in the article the authors emphasize that when semi-vocalization affects the proclitics it does so as a variable process. Even though the goal of their article was not to provide a variationist account of semi-vocalization but rather to present an alternative empirical and theoretical approach to existing ones, they suggested in their conclusions that the variable nature of the process may have something to do with the speakers' individual peculiarities.

2.1.7. **Motivation and Phonological Hypotheses**

Above, I have presented a review of several phonological studies that have dealt with the variable character of syllable final liquids and stops in Cibaeno and other Spanish dialects (Navarro Tomás (1956, 1972), Henríquez Ureña (1940, 1975), Jiménez Sabater (1975); Golibart (1976), Guitart (1981), Harris (1983), Núñez-Cedeño (1997), Baković (2007), Núñez-Cedeño and Acosta (2011). See also D'Introno et al., (1979), Alba (1979), Rojas (1981) and references therein). Specifically they were concerned with facets of semi-vocalization and liquid gliding relevant to this dissertation.

This study deals specifically with some of the aspects that were not discussed in Núñez Cedeño and Acosta (2011). I will present a variationist account of the phenomenon of semi-vocalization as a variable process. Therefore, I will look at the intra and extra-linguistic factors that may have an effect on the speakers' linguistic choices regarding semi-vocalization. Given Henríquez Ureña (1975) and Jiménez Sabater's (1975) findings relative to the frequency of the semi-vocalization, I hypothesize that even though speakers do not vocalize all the time (but on a variable basis), the process is frequent and systematic in their speech. In addition, considering Núñez Cedeño and Acosta's (2011) findings, I hypothesize that in the datasets analyzed here the context of application of semi-vocalization is syllable final regardless of the word's prosodic structure (i.e., regardless of whether the liquid is in a prosodic or a function word).

With regards to the intra-linguistic factors that I consider, I look specifically at: (a) the preceding phonological context (necessarily a low, medium or high vowel in Spanish); (b) the following phonological context (a vowel, a plosive, a fricative, a nasal or a pause); (c) the syllabic position (coda word internal and word final); (d) the type of stress of the syllable carrier of the vocalized segment (stressed or unstressed); (e) the type of stress of the syllable following the vocalized segment (stressed or unstressed); (f) the grammatical function (whether it is a prosodic or a function word); (g) the type of prosodic word (noun, verb, adjective, adverb), and (h) the type of function word (preposition, article, other). All of these variables are statistically measured (see the Methodology section below) to determine the effect or impact they have on the speakers' language choices, specifically on semi-vocalization.

2.2. **A Sociolinguistic Account of Semi-vocalization**

The semi-vocalization process has also been approached from a variationist viewpoint. In this second part of the review I offer a summary of several studies that have used such an approach.

2.2.1. **Semi-vocalization from a Sociolinguistic Perspective**

Semi-vocalization has received a great deal of attention from a sociolinguistic perspective, within which, in addition to examining intra-linguistic factors, authors have also analyzed the social factors that may impact such process. In addition to providing a theoretical, formalist account, one of the main goals of Golibart's study was to establish a correlation between semi-vocalization and speakers' socio-cultural class. In order to address this, he conducted a quantitative study to determine the frequency of semi-vocalization as well as the social correlates connected to the ratio of occurrences. Comparing the natural/informal speech (obtained from

recorded conversations ranging from 20 to 45 minutes) of twelve speakers arbitrarily assigned to two groups depending on the similarity of their characteristics, he sought to determine whether there were any similarities or differences between the linguistic patterns of each group. He ended up with the types of speakers given in (29):

(29) Types of Speakers (Golibart, 1976)

- a. urban middle class, high level of education, over 50;
- b. urban, middle class, high level of education, between 25 and 30;
- c. urban, middle class, considerable level of education (lower than 1 and 2), between 20 and 30;
- d. urban, lower class, low level of education, no specification for age;
- e. rural, lower class, very low level of education or none, living near an urban center, no specification for age;
- f. rural, lower class, very low level of education or none, living far from an urban center, no specification for age.

A problem that arises with such typology, however, is that the criteria on which the classification was made is not precisely comparable across groups. That is, from the six groups established, only two are of rural speakers without age specification, non-educated and from a different class in comparison with the first four groups. To explain the results, given in Table 4 below, three assumptions were made:

- 1. uneducated rural speakers would have the highest percentage of occurrence of semi-vocalization;
- 2. among urban speakers, the ones with lowest levels of education and belonging in the lower class would have the highest percentage (however, lower than those of the rural speakers);

3. the percentages of occurrence of semi-vocalization would be inversely proportional to the socio-cultural level of each speaker (the higher in the socio-cultural scale the lower the percentage of semi-vocalization).

TABLE IV. DATA ON FREQUENCY OF VOCALIZATION (GOLIBART (1976))

No.		Group A		Group B		
		%V	%L		%V	%L
1	RF	35	64	FI	3	96
2	RV	61	39	LV	73	26
3	EG	42	58	EG	53	46
4	NC	75	25	AR	81	19
5	ST	95	5	AL	95	5
6	GE	100	0	LF	87	12

These results will not be discussed at length here; however, they show that the assumptions stated in 1 and 2 above were borne out: the uneducated rural speakers (numbers 5a,b and 6a,b in the table) had the highest percentage of occurrence of semi-vocalization while urban speakers, the ones with lowest levels of education and those belonging to the lower class had the highest percentage, yet they were lower than the percentages for the rural speakers.

With regards to the assumption in 3, it was only partially met since there were two speakers that did not follow the same ranking (see EG, EG, NC and AR above). For two potential explanations of why this should be so and alternative grouping of the speakers, see Golibart (1976:30). A second analysis of the data allowed Golibart to establish that there was in fact an association between the selected vocalized form and the socio-cultural background of the speaker and in consequence, a sociolinguistic significance was found to be attached to the different vocalized forms.

Meanwhile, Alba (1988) looks at the variable realization of liquids in coda position in an urban community of Santiago in the Cibao region (see also Coupal et al., (1988) and Pérez Guerra (1991)). Alba (1988) sought to show that:

- a) both socioeconomic condition and age influence the semi-vocalization process;
- b) semi-vocalization was not the most frequent realization of word final /l/ and /r/ among the lower class speakers of Santiago;
- c) /l/ was most resistant to change as compared to /r/;
- d) semi-vocalization was conditioned by the type of the following segment and whether the word in which the liquid vocalized was stressed or unstressed.

The variants¹⁹ he examined are showed in (30) below:

(30) For the segment /r/:

- a vibrant realization represented as [r] (i.e., /r/)
- a fricative [ř]
- an intermediate sound between a relaxed fricative and a vocalized segment [ři]
- a vocalized segment [j]
- an elided segment [Ø]
- a lateralized [l]

For the segment /l/

- a lateral realization [l]
- an intermediate sound between a relaxed lateral and a vocalized [li]
- a vocalized segment [j]
- an elided segment [Ø]
- a vibrant [r] realization (i.e., /r/)

The findings showed that upper class speakers in his data set systematically used the variants employed in regular Spanish that correspond, roughly, to the standard variants. Among

¹⁹ Examination by other researchers of the different variants of liquid segments showed that in Santo Domingo prevailed the lateral variant /l/ (Jorge Morel (1974)); in San Francisco de Macorís there were up to nine different variants found (Rojas (1981)); in Samaná persisted assimilation to the next consonant, rhotacism and elision (Benavides (1985)) and in the north coast the semi-vocalized variants were of two different types: a closed form [j] and central form [ə] (Coupal et. al., (1986)).

lower class speakers he found a more varied distribution, with a higher presence of semi-vocalization and elision as well as higher rates of the intermediate sounds. These findings are also supported by Alba (1990) in which the author shows a correlation between socioeconomic class, schooling time and the variable realization of semi-vocalization. For a very detailed account of phonetic variation of liquids and their correlation with social factors see Alba (1990).

In Alba (1988) the author points out that /l/ was more resistant to the weakening processes than /r/, similar to the findings of D’Introno et al., (1979) for Venezuelan Spanish and of Roce and Cacoullos (2002) for a Panamanian dialect. Interestingly, he also reports a relatively low percentage of vocalization among lower class speakers of Santiago, which, according to him, contradicts the general impression that the vocalized forms are the most frequent in that dialect. He concludes that vocalization is just one of the many variable realizations of liquids in coda position, among which the standard forms are most predominant, and that lateralization and rhotacism are non-existent in the Spanish of Santiago.

Regarding age, Alba (1988) found a significant difference among the pronunciation of lower class speakers. Younger speakers used more the standard and intermediate variants whereas the older speakers used more the vocalized forms (not significant among young speakers). According to Alba, the results seemed to suggest, that an ongoing change could be in place (which eventually would result in a reduction of the vocalization) and that the vocalization is a stigmatized phenomenon.

With regards to whether the word in which vocalization occurred was stressed or unstressed, the author found that the rate of liquid weakening in unstressed words (e.g., the preposition *por* ‘for’; the article *el* ‘the’ and its contractions *al* ‘to the’ and *del* ‘of the’) was lower than in stressed words (e.g., the pronoun *él* ‘he’; infinitives, among others), probably attributable

to a greater syntactic and phonetic cohesion between the article and or preposition with the other components of the phrase (1988:7). In unstressed words /l/ showed a greater level of weakening compared to /ɾ/, as far as vocalization and intermediate realizations are concerned. In the data set, production of final /ɾ/ as a rhotic in unstressed words (as in *por* ‘for’) was less frequent before consonants than before vowels, whereas /l/ as a lateral (like in the articles *el* ‘the’, *al* ‘to the’, *del* ‘of the’) occurred before consonants four times more frequently than before vowels. The factors with the greatest contribution to the maintenance of the liquids were vowels, pauses and the following consonants. The data showed that before vowels, however, both the article *el* ‘the’ and the preposition *por* ‘for’ maintained the liquids categorically, which Alba claims is the result of the weakening rules being blocked in this context.

Alba proposes that in order to maintain such liquids two factors must be at play: (a) the lack of stress in the word that contains the liquid (which obligates the unstressed clitics to adhere to other stressed elements within the phrase they belong to), and (b) the presence of a vowel as the first segment of the following word (that allows for a syllabic readjustment to the universal syllable type CV). Thus, in his explanation, Alba combines (in line with Harris’ proposal) the prosodic structure of the word in which the liquid is located with the type of following segment (a vowel). Alba emphasizes that in the case one of these factors is not present then the maintenance of the liquid is not categorical and the weakening rules can apply (1988:9). Notice that Alba differs from Guitart (1981) in that he indicates that stress has an effect on vocalization; however, he emphasizes that it does so only when combined with the factor of the following segment (and such segment is a vowel).

He formalizes the vocalization rule as a variable rule that applies word finally in the lower class dialect of Santiago as shown in (31). From the rule, it follows that the liquids will vocalize

variably more frequently before consonants than before vowels. In unstressed words followed by a vowel, the rule does not apply.

$$(31) \quad \left\{ \begin{array}{c} l \\ r \end{array} \right\} \rightarrow \begin{array}{l} < i > / _____\# \\ < \text{stressed word} > \end{array} \left\{ \begin{array}{c} P \\ C \\ V \end{array} \right\}$$

$$< \text{unstressed word} > ______ C$$

In summary, the study found that the socioeconomic class had a direct impact on the weakening process that affect liquids syllable final in Santiago. Age also influences the variation of the liquids, with younger speakers disfavoring vocalization; this tendency, jointly with its inexistence among the upper class speakers (in this data set), may point towards a change in progress and to the perception that the process is stigmatized. In addition, the absence of stress in the word that carries the liquid together with the presence of a following vowel prevent these rules from being applied, while they may be applied variably in stressed words that are followed by consonants or a pause. Finally, the percentages of the realization of vocalization contradict the general idea that vocalization is systematically found among the lower class speakers of Santiago.

2.2.2. A Sociolinguistic Study of Vocalization in a Rural Area

Similar results have been found in Rojas (1981). The study analyzed the different realizations of syllable final liquids in the speech of twelve informants in the rural dialect of San Francisco de Macorís. He examined the variants (see above) previously identified by Henríquez Ureña (1975) and Jiménez Sabater (1975) seeking to determine whether the vocalization was as systematic and extended as suggested by those authors. His general findings revealed that the speakers realized the liquids mostly as the normal or standard variants of general Spanish; both liquids were vocalized in syllable and word final positions (see below); the vibrant /r/ underwent

more elision than the lateral /l/ and there were more cases of rhotacism as compared to lateralization.

Rojas also presented the results regarding the realization of liquids in each position, that is, syllable final within a word and word final. For the lateral, he found that it was mainly produced as [l] followed by vocalization (almost 30% of the cases) and by some cases of rhotacism. Elision was not found in the data for this segment. According to the author neither the stress nor the sonority of the following segment seemed to influence the relative frequency of the variants. With regards to the vibrant /r/, the production of the standard form was similar to that of the lateral, with the higher percentage of cases found as standard realizations followed by vocalization and elision in comparable proportions and a small number of cases of lateralization. Rojas later introduced a finer distribution for this segment presenting the results of three types of realizations of /r/:

- a) in the conjunction *porque* ‘because’ the liquid was not vocalized but rather deleted, following the pattern of other Caribbean dialects;
- b) in infinitives followed by proclitics the findings were similar to the regular cases of /r/ followed by a consonant;
- c) in all other cases the results showed that /r/ was realized as a vibrant in 50% of all cases, vocalization was found in 30% whereas lateralization and elision were found in 12% and 8% of the cases, correspondingly.

Regarding liquids word finally, with the exception of two cases of vocalization of the liquid in the pronoun *él* ‘he’, there were no other cases in which the lateral vocalized when followed by a vocalic segment. Rojas suggests, in line with other authors (see above), that this occurred because the liquid undergoes a process of resyllabification, shifting from the coda to the

onset of the next syllable. Before consonants and pauses the author found more cases of vocalization. However, he pointed out that the proportion before consonants was not high enough to conclude that the process was categorical as indicated by Henríquez Ureña and Jiménez Sabater; it was only before pauses that such a statement could be made. His findings for the vibrant in the same context showed that there was a comparable ratio of cases of vocalization and elision; nevertheless, he suggested that the findings for this segment must be interpreted with caution and that the data set for the analysis of this segment should be extended.

To summarize, Rojas (1981) shows that speakers of a rural dialect of San Francisco de Macorís from the lower class did not present the linguistic homogeneity described in Henríquez Ureña and Jiménez Sabater's works. Therefore, the results did not support Jiménez Sabater's idea of neutralization of liquids in one archiphoneme [I], because vocalization was not found in all the cases and there were differences between both liquids. Considering the cases of deletion in the conjunction *porque* 'because' and vocalization and deletion in the infinitives, it was necessary to isolate both categories and come up with a finer distinction among the variants of the vibrant. Further, although homogeneity was not found between the realizations of the liquids, it was found that the vocalization process was perceived by speakers of other dialects as categorically different, albeit less frequent than it was expected (1981:284).

As a final point, Rojas offers some phonological considerations, extended in Rojas (1988), where he discusses the different types of liquid realizations and proposes that vocalization results from the variable application of rules, with vocalization as an intermediate step in a weakening process that ends up with the total deletion of the segments. See Rojas (1988) for a complete account of this.

2.2.3. Vocalization in the Speech of Children from Two Schools

Marrero et al., (1981) look at the syllable and word final /ɾ/ in the speech of children from two schools in Santiago²⁰. The authors considered social class and sex as the extra-linguistic factors that may have had some influence on the weakening of the segment; therefore, the data came from speakers belonging in the upper and lower class, respectively. As for linguistic factors, they measured whether the segment was part of a morpheme or not, the phonetic context, and whether the word that carried the vibrant was stressed or unstressed.

In the study, Marrero et al., also analyzed the variants of /ɾ/ identified by Jiménez Sabater (1975). The intermediate sound between /l/ and /ɾ/ referred to by Jiménez Sabater and another intermediate realization between a relaxed sound and an anterior semi-vowel were grouped with the fricative realization. As for the aspirated, no cases were found in this data set. For the analysis of the weakening of /ɾ/ the authors set a gradient scale in which the fricative was the normal variant (since it was the one with the highest frequency) preceded by the vibrant as a reinforced segment. To the right of the scale the other variants progressively represented a greater level of weakening with the elision as the last step of the process.

The general results revealed that the most frequent variant was the fricative with 70% of the cases, followed by elision with 15% and the vibrant 10%. The vocalized forms were just 3% of all the cases. Examining each one of the variants individually by school, the authors showed that their distribution followed the same pattern indicated above with a very low ratio of vocalization in the upper class school (0.24%). They also found a correlation between the use of the fricative forms and elided segment with gender, that is, girls used the fricative forms more frequently than boys whereas boys elided the segment more than girls.

²⁰ See Cheshire (1982) for an analysis of non-standard linguistic features in the vernacular and school style speech of children in Reading, England.

The distribution of the variants was roughly similar to the one presented in the general results for both positions (word internally and word finally). However, for word internal there were more cases of vocalization than word finally. With regards to the morphological status of the word carrier of the vibrant, they considered the vibrant in the infinitives as being part of a morpheme while the segment in the rest of the items was not. It was found that the elision was greater when /r/ was part of the infinitives as compared to the other cases. Vocalization was very low in both types of words. Infinitives were also examined in combination with the phonetic context; the results revealed that even though there were more cases of vibrant and fricative followed by a vowel, the elision rate also increased in the same context. Finally, an examination of the stress showed non-significant differences in the distribution of the variants in stressed and unstressed words.

Marrero et al., conclude that social class only influenced the vocalization (which was determined to be more frequent among lower class speakers than upper class speakers) and not the other types of realizations; girls were more conservative than boys in the use of the variants; vocalization was more frequent word internally than word finally; the vibrant of the infinitives showed a greater amount of elision compared to the same segment in other types of words (c.f. when it was not part of a morpheme), and stress was not relevant for the production of any of the variants. Finally, their results did not support Henríquez Ureña and Jiménez Sabater's findings of a systematic presence of vocalized forms among the lower class speakers of Cibaeno Spanish (see Rojas (1981) and Alba (1988, 1990) for similar results).

2.2.4. **Motivation and Sociolinguistic Hypotheses**

Even though the studies I referred to above present sociolinguistic investigations of vocalization, only Rojas (1981) focuses on the study of the process in a rural area; the others

center on the analysis of data coming from urban areas. Similar to Rojas, I will focus on a rural area. Taking into account the findings of Alba (1988, 1990), Rojas (1981, 1988) and Marrero et al., (1981), I hypothesize that:

1. There is a correlation between vocalization and extra-linguistic variables such as level of education, income, age, and style as indicated below.
 - a. Speakers with a higher level of education use less vocalized forms than those with lower levels of education.
 - b. Speakers with a higher income use less vocalized forms than those with lower income.
 - c. Younger speakers vocalize less than older speakers.
 - d. Female speakers use fewer vocalized forms than male speakers.
 - e. All speakers vocalize less in formal speech than in more casual speech.

In order to explain the linguistic behavior of the speakers in my data I assume that the variants utilized by them carry particular social meanings. Therefore, besides linguistic theory which will explicate some intra and extra-linguistic constraints, I will also refer to Social Network Theory (see below) to explain individual variation in the speakers' linguistic behavior.

2.3. **The Social Value of Variation**

In this section, I discuss the social value of language variation by presenting a series of studies that illustrate the social significance of the language. Similarly, I introduce Social Network Theory as well as other relevant concepts (e.g., Speech Community, Community of Practice, etc.), that are essential to understand the study of language variation and change.

2.3.1. Language Variation and Social Variables

Many sociolinguistic studies have shown the connections between language variation and social variables such as age, gender, and social class, among others. According to Poplack (1978:89) the linguistic behavior of a person changes when his or her social position changes. Therefore, language can be taken as an indicator of social status and social change. Essential to the study of variation is the analytic construct of the *sociolinguistic variable*²¹, traditionally used as a heuristic device by Labov (1978) and more recently viewed as "different ways of saying the same thing" (Walker (2010:16)). In current social meaning-based studies it is not just considered as a methodological tool, but as an "object in the social world" with "real world status" (Campbell-Kibler (2011:423)).

However, according to Walker (2010:9) since a variable is an abstract construct we instead hear its overt manifestations or *variants*. In the analysis of linguistic variation, determining what counts as a variant of a variable and what does not requires defining the *variable context*, that is, what forms alternate with each other. This crucial consideration is known as the *Principle of Accountability* (Labov 1972) which proposes that in the analysis of certain linguistic forms it is necessary to take into account not only the occurrences of such form but also the instances in which it was expected to have appeared but did not. To define the variable context there are two main approaches: form based and function based. In form based approaches, the analysis begins with the identification of at least two alternating forms that are roughly equivalent in meaning (e.g., variation at the phonological and phonetic levels) whereas function based approaches focus on the different functions that a particular defined linguistic form conveys (e.g., variation at the morphological, syntactic levels) (Walker (2010)).

²¹ Silva Corvalán (2011) extensively illustrates how to identify different types of variables in Spanish and how to conduct quantitative analyses of the data.

Beyond the purely linguistic value of the variables and their variants, they are also considered as potential carriers of social meaning²². Campbell-Kibler (2011), in her study of sociolinguistic perception of the English variable (ING), looked at whether social meanings were indexed by variables or variants. Considering the alveolar variant [ɪn], the velar [ɪŋ] variant and a neutral form, she tested the hypothesis that the regional accent of the speakers would have an influence on the listener expectations of [ɪŋ] use and on the patterns of social evaluation of the first two variants with respect to the neutral. Even though her results did not reveal an influence on the social perceptions of the listeners regarding the three variants, her findings supported the first part of the hypothesis: there was a correlation between regional provenance and expected [ɪŋ] use as well as between this variant and socioeconomic status of the speakers (including education and situational formality).

Her results also suggested that, although intimately related, the variants [ɪn] and [ɪŋ] are socially distinct entities and each contributed a different meaning, the former indexing informality and the latter intelligence and education. Campbell-Kibler also indicates that since each variant is tied to a particular set of meanings, discussions of the social meaning of [ɪŋ] must be considered as operating along a different continua; moreover, it is necessary to include in the analysis not only the contrast of one variant against another but also to compare both against a neutral alternative which in turn would develop the real influence of the variants on several dimensions of social perception.

In the field of sociolinguistics, research has developed within the framework of either the quantitative or the qualitative paradigm. The quantitative paradigm, in which Labov's proposal has been the most influential, assumes that a set of linguistic variables is shared across a particular population, thus, its empirical interest centers on the macro (social) level. On the other

²² See Cheshire (1982) for a sociolinguistic study of variation in an English dialect.

hand, in the qualitative paradigm (see Hill (1985) and Romaine (1982b) and references therein) the research locus is not the social aggregate but rather the individual in society, that is, the micro level. These paradigms differ in terms of their theoretical focus; the quantitative research lead by Labov has traditionally focused on linguistic theory whereas the qualitative research focuses mainly on social theory. Most of the research presented below in this section has been conducted within the quantitative paradigm, however, it is worth mentioning that the level of empirical reality of many current approaches (see, for instance, Social Network Theory below) is no longer limited to the macro level but rather it seeks to integrate both the social and individual (macro and micro) levels.

2.3.2. **Sociolinguistic Research and the Concept of Speech Community**

Labov and his colleagues have systematically examined the relationship between the speakers' variables and language variation, determining that there are patterns which suggest that variation is in fact socially regular. His well-known studies in Martha's Vineyard (1963) and New York City (1966) revealed that there were indeed regular patterns of variation in the communities as a whole; the analysis of such socially patterned variation can be illustrative of the mechanisms behind linguistic change (Milroy and Milroy (1992)). At the center of Labov's research is the notion of *speech community* which he sustained is determined in a particular population by its shared used (production) and evaluation of a set of linguistic variables. The speech community model has been criticized in many accounts; Romaine (1982b), for instance, indicates that social theory should have a higher priority in sociolinguistics than it does for Labov, who considers that valid sociolinguistic research relates sociolinguistic data to central problems of formal linguistic theory (Labov (1972b:183)). In his view, the speech community construct does not aim to reveal the social functions of individual speakers and their interlocutors, but instead aims to capture

social facts of language use and evaluation. This dissertation is not directly concerned with providing an in-depth discussion of the term speech community, thus, a discussion about the definition of the term or the advantages and disadvantages of such approach will not be pursued here. For a complete account of criticisms to the speech community model see Santa Ana and Parodi (1998) and Bucholtz (1999).

Following Labov, many other scholars have progressively developed effective ways of studying social life and its link with language by conducting, for instance, studies of phonetic and phonological variation. Poplack (1978) looked at dialect acquisition in bilingual Puerto Rican children in Philadelphia. Specifically, she sought to determine how the English spoken by these children was influenced by their contact with children of different ethnic backgrounds (e.g., non Puerto Rican whites and blacks), namely, whether they followed the Philadelphia pattern or the Black English Vernacular (BEV) pattern in their speech. She found that all the variables under study were subject to stylistic shifting, with a higher amount of Philadelphia forms in careful speech as compared to casual speech especially by the girls. On the other hand, the boys showed more realizations of BEV variants in both styles.

Her findings did not show any influence from Puerto Rican Spanish on the English speech of the children. However, her results revealed a significant proportion of BEV features in the data. She explains these findings not in terms of the extension of the speakers' black contacts (which were very limited) but rather in terms of the speaker's system values and the notion of covert prestige. An examination of the friendship patterns indicated that even though Puerto Rican children associated mostly with other Puerto Ricans, one of the black students and speaker of BEV was named as one of the five people many Puerto Rican children liked to hang out with the most. The notion of covert prestige suggests that there are certain features associated with

non-standard or working class speech (BEV in this case) desirable for speakers who are not members of such groups (covertly since they do not openly admit they use these features). Similar findings to those of Poplack can be seen in Trudgill (1976). Recognizing the significance of language in social life, Poplack refers to the "remarkable level of linguistic sophistication" of the children and concludes that they "possess elements of two linguistic systems, and have structured this input in a socially significant way" (1978:102).

Another study that focuses on the effect of extra (as well as intra) linguistic variables on phonological variation is Raymond et al., (2006). They investigate the deletion of word-internal alveolar stops /t, d/ in spontaneous English speech (e.g. better, advice). They found that factors such as age of the speaker and speech rate were correlated with the deletion rates; younger speakers had higher rates of deletion than older speakers for the alveolar segments, when they were in onset position word-internally and in faster speech. For a summary of the results of the analysis of intra-linguistic variables on deletion see Raymond et al., (2006). Meanwhile, Schembri et al.,'s (2009) study of the phonological variation and change in sign languages in Australia and New Zealand found that the location variation in the production of some of the signs reflected the influence of both linguistics and social factors. In Australia, for instance, the social variables of age, region, and gender showed some statistical significance in the location change --older signers in smaller state capitals and men favored the production of unmodified forms of the signs and, young, female signers favored the lowered (changed location) signs. As for the results in New Zealand, signers from small urban areas and males favored the unchanged forms whereas those from larger urban areas, female signers and native signers favored the lowering of the variants. Ethnicity was also found to be significant in this community.

Sociolinguistic investigation has also explored morpho-syntactic structures and their relation with particular social configurations. Dench (1987) examines the functions of a verbal suffix in the Ngayarda languages of Australia suggesting that it is not just a syntactic device but that it also indicates "the existence of a particular kin relationship between participants involved in the action described by a verb" (1987:321). The suffix, which traditionally marked collective performance of an action, has extended its use to indicate that participants in the clause are part of the same generation set. Such an extension, Dench argues, is intimately associated with the type of social interaction found in that speech community where there is a division between two groups of different ages who interact in a restricted manner but act as a collective. The division reflects not only in the grammar of the language but also portrays an important part of the social interaction of the community and the contrasting relationships thereby contracted by the participants.

Quantitative examination of the relationship between language use and social factors has extended to other aspects of grammar as well. Vann (1998) analyzes an innovative use of Spanish deictic expressions in Barcelona, Spain. Exploring innovative usage of the motion verb and the demonstrative and locative subsystems of spatiotemporal deixis in the Spanish of Catalonia, he sought to determine to what extent transference of a reference system from one language to another was predictable from linguistic factors (e.g., similarities and differences in form and function) and from social factors (e.g., exposure to each language, integration into social networks, and linguistic ideology).

He hypothesized that the pragmatic scope associated with deixis would be transferred from Catalan to Spanish in a way predicted from the lexical form of the deictic terms in each language, and that the pragmatic scope associated with deixis would be transferred from Catalan

to Spanish in a way partially predictable from three extra-linguistic variables: (a) exposure to the language, (b) type of social network and (c) Catalanist ideology. From this latter hypothesis he expected to find a negative correlation between exposure to Spanish and increased measures of transfer. He also predicted that the higher the level of integration of a speaker into a particular Catalan-oriented social network (the social networks associated with two fieldworkers were selected for the study) and with increased measures of Catalanist ideology, the higher the proportion of transferring. Lastly, he posited that there would be differences among the transferring amounts according to the sampling groups.

The results did not support the first hypothesis; therefore, transferring was not predictable from the lexical form of the deictics in each language nor did they support the idea that increasing degrees of integration into a Catalan-oriented social network would increase the measures of transfer. The findings, however, supported all other hypotheses. An interesting finding was that even though the distribution of transference was different in each network "the relative contribution of explanatory variables to the transfer model was the same in each group" (1998:281). He concluded that "the two systems coexist in an extremely complex and highly variable model that differs somewhat for each person" (1998:284).

Either implicitly or explicitly, all these studies presuppose the existence of a speech community, roughly as proposed by Labov (1972), wherein variation patterns can be found as a result of the interaction between linguistic and social variables. Nonetheless, as we will see below, new methodological and theoretical constructs are entering the field and approaching the same issues from a different perspective, integrating the macro and micro levels of analysis.

2.3.3. The Community of Practice Concept

As mentioned above, the concept of speech community has been challenged from many perspectives. To overcome its limitations for some areas of sociolinguistic research, a recent development in the field is the introduction of the *Practice Theory*. In Practice Theory, the *Community of Practice* (henceforth CofP) concept has been proposed as an alternative to the speech community construct. The CofP is a component of a social theory of learning (Lave and Wenger (1991)) and was first introduced by Eckert & McConnell-Ginet (1992) who defined it as:

“An aggregate of people who come together around mutual engagement in an endeavor. Ways of doing things, ways of talking, beliefs, values, power relations –in short, practices– emerge in the course of this mutual endeavor. As a social construct, a CofP is different from the traditional community, primarily because it is defined simultaneously by its membership and by the practice in which that membership engages” (1992:464)

The supporters of the CofP model suggest that it surpasses the speech community in that it can be connected to a larger social theory (as opposed to the speech community concept that is indigenous to sociolinguistics). Holmes and Meyerhoff (1999:175), in distinguishing the CofP from other analytic frameworks, recognize three crucial dimensions of the CofP identified by Wenger (1998): (a) mutual engagement (requiring regular interaction without which a CofP is not possible); (b) a joint negotiated enterprise (a process that involves complex relationships of mutual accountability), and (c) a shared repertoire (of negotiable resources accumulated over time that includes the use of joint linguistic resources which allow speakers to negotiate meaning).

Since the CofP is considered a model of learning, membership in a CofP requires learning. A person will start as a *peripheral member* and eventually can become a *core member* but in any case belonging to a “CofP inevitable involves the acquisition of sociolinguistic competence”

(Holmes and Meyerhoff (1999:174)). According to Wenger (1998:130-131) a CofP displays 14 constitutive features, given in (32) below and which will be found to different extents in each community.

- (32)
- a. Sustained mutual relationships- harmonious or conflictual.
 - b. Shared ways of engaging in doing things together.
 - c. The rapid flow of information and propagation of innovation.
 - d. Absence of introductory preambles, as if conversations and interactions were merely the continuation of an ongoing process.
 - e. Very quick setup of a problem to be discussed.
 - f. Substantial overlap in participants' descriptions of who belongs.
 - g. Knowing what others know, what they can do, and how they can contribute to an enterprise.
 - h. Mutually defining identities.
 - i. The ability to assess the appropriateness of actions and products.
 - j. Specific tools, representations, and other artifacts.
 - k. Local lore, shared stories, inside jokes, knowing laughter.
 - l. Jargon and shortcuts to communication as well as the ease of producing new ones.
 - m. Certain styles recognized as displaying membership.
 - n. A shared discourse that reflects a certain perspective on the world.

The CofP construct has provided the basis for many theoretical studies and empirical research, which have been progressively accumulating. For instance, Holmes and Meyerhoff (1999) explore not only the relationship between the concept of CofP and other theoretical frameworks but also provide data that illustrate a large number of the features (see above) in a CofP in New Zealand. They state that the CofP concept “offers a potentially productive means of linking micro-level and macro-level analyses” (1999:181).

Bucholtz (1999) utilizes the CofP model to explain the construction of identities as the result of positive and negative practices in a community of female *nerds* in a US high school. She analyzed the interaction among four central members and two peripheral members of a social group who displayed nerd social identity through their engagement in shared practices. Her findings revealed many positive (in which individuals engage to construct a chosen identity) and negative (employed to distance oneself from a rejected identity) linguistic and non-linguistic practices that were used to construct the nerd identity. She identified positive practices related to individual and collective displays of intelligence, a central resource for nerd identity. At the same time, she found examples of negative linguistic practices in which members of the group did not fully engage in nerdy identity construction. She suggests that the study of such practices within the framework of the CofP addresses issues at both the social and linguistic levels. Specifically, it brings quantitative and qualitative research together by simultaneously accommodating multiple dimensions of social analysis and the investigation of aspects of the self.

As previously stated, the literature on CofP is extensive, and a detailed treatment of all the complexities of CofP and the practice theory is far beyond the scope of this dissertation. I refer the interested reader to Eckert & McConnell-Ginet (1992) and Holmes and Meyerhoff (1999) and references therein. Finally, I will add that the CofP framework shares features with other venues of analysis such as Social Network Theory, to which I refer in the next section. Both models consider, for instance, some distinction between core and peripheral members. Also, the extent to which certain individuals are integrated into a network (whether multiplex or uniplex) is comparable to the idea of membership acquisition in a CofP. They differ nonetheless in the nature of the interaction contracted by the individuals; a social network requires quantity of interaction

whereas a CofP requires quality of interaction (Holmes and Meyerhoff (1999)). Next, I further illustrate the features of Social Network Theory.

2.3.4. **Social Network Theory**

Social Network Theory has been crucial to integrating macro and micro community models. Network analysis examines the relationships between people in a community. With its origin in the tradition of anthropological studies, it was developed by various scholars to account for the behavior of individuals within a less abstract social, political, and economic framework than previously analyzed. In sociolinguistics, it was developed in response to the use of preconceived social categories such as *class*, moving beyond that type of fixed social categories to employ more *locally meaningful* categories in the explanations of language variation.

The first attempt to explicate linguistic behavior using social networks as an explanatory device was Bott (1957, 1971). In her study, she described the variation patterns between husbands and wives of twenty families in London, and found a correlation between the individual's personal networks, their levels of responsibility and the degree of independence they showed from each other. In cases in which the spouses were independent from each other and their responsibilities were clearly allocated, their personal networks were more dense (meaning that their contacts knew each other), as compared to when their responsibilities were less rigidly allocated and they were more dependent on each other. Another dimension that Bott added was that of multiplexity; that is, in dense networks, people interacted with one another in more than one capacity, meaning that a person's friend could also be a classmate and a roommate.

Density is a structural characteristic of personal networks whereas multiplexity is an interactional or content characteristic. In a dense network, many people to whom an individual is linked are also linked to each other; in multiplex networks a person is connected to the individual

in more than one capacity (e.g., neighbor, friend, workmate). Bott argued that dense and multiplex networks are norms of enforcement mechanisms because they form groups that are able to impose “normative consensus on its members” (Bott (1971) cited in Milroy and Margrain, (1980:48)), therefore, they are able to model their linguistic behaviors. She argued that the networks in rural areas tend to be dense and multiplex.

In sociolinguistic research, a network analysis account has been used by Labov (1968) in his study of adolescent peer groups in Harlem and later in his study of adult networks in Philadelphia. The method has been particularly developed within the field by Milroy and Milroy (1976, 1977, 1992, among others), especially Milroy (1980) and her work in Belfast. They use social networks to account for certain class based findings that remained unaccounted for and to identify patterns of interpersonal relations which may also account for individual linguistic behavior. The Milroys diverge from Labov’s proposition that studying the idiolect (the language of the individual) does not reveal sociolinguistic patterns as well as the speech of the social group does. Drawing on the ideas put forward by scholars who took the individual as the basis for the study of linguistic variation (Le Page (1968), Bickerton (1975), Gumperz (1967a, 1976b), Boissevan (1974), Mitchel (1973), Russell (1977), among many others) they try to explain linguistic behavior as a result of the level of integration of an individual into a certain community. Like most other researchers, they also assumed the density and multiplexity dimensions of networks proposed by Bott.

Milroy (1980) is an in-depth study of social networks as explanatory devices of language variation and change. In the book, she discusses the operationalization of conducting a study within this framework, illustrates some of the mechanisms to obtain data in the communities, and discusses the most appropriate ways of gaining access to the speaker’s vernacular speech. Since

the findings of her study can be found elsewhere (Milroy and Milroy (1977b), Milroy and Margrain (1980), Milroy and Milroy (1992)), I will just briefly review her work here. Milroy (1980) uses social network as an analytic concept and applies it to her research project in three large working-class areas in Belfast (Clonard, Hammer and Ballymacarrett) delimiting two network zones: a *first order zone* in which people directly linked to ego belong to, and a *second order zone* integrated by people more distantly linked to ego. A description of the fieldwork procedure can be found in Milroy (1980:56) as applied in the Clonard area. She also discusses the structural (e.g., density) and content (e.g., multiplexity) characteristics of personal networks.

In her study Milroy looks at several extra-linguistic variables, such as social class, sex, speaker's region of origin, age and group identity of the speaker. As for the linguistic variables, she analyzes the index scores of the following variables and their phonetic variants: /a/, /æ/, /ɪ/, /θ/, /ʌ/ and /ɛ/. The data come from the scores of forty-six speakers, both male and female in two age groups (18-24; 40-55). An analysis of variance was performed to check the reliability of the connection between intra and extra-linguistic variables.

Concisely, the results revealed that there were significant differences between male and female language use on a number of variables. There was also a significant difference between the mean scores of Hammer and Clonard, with the highest scores for the variable /ɪ/ in the former and the lowest in the latter. That variable also showed a significant difference between means for the two age groups, with the younger age group scoring significantly higher than the older group. Regarding the variable /a/ the most regular differences in its use were found in Ballymacarrett; such differences were almost non-existent in Hammer and went in the reverse direction among the younger speakers in Clonard (1980:123-125). Further, young speakers in the three areas showed regular patterns of variation according to whether they were male or female. The highly

significant differences between male and female groups led the author to the conclusion that the variables functioned as sex markers in the communities.

Milroy also checked for interaction effects in the distribution of the linguistic variables (i.e., whether patterns of variation amongst extra-linguistic variables such as age, sex and area were significant or due to chance variation). She discovered that these variables interacted in complex ways; among other findings there was a significant interaction between sex and age for the variable /ʌ/ and for the variable /a/ (resulting from high scores of the young women in Clonard). The variable /ɛ/ was found to function as a sex marker in the three communities, with men scoring higher than women. As for /θ/, it showed no interaction effect.

In an attempt to account for the individual variation patterns found in the data, Milroy hypothesized that closeness to vernacular speech norms would correlate positively with the level of integration of the individual into local community networks (1980:134). This is essentially the same hypothesis posed by Milroy and Margrain (1980), although this hypothesis is presented in terms of loyalty to vernacular norms. Hence, I will now briefly discuss this study and present its results, which are essentially the same as Milroy (1980).

Milroy and Margrain (1980:45) examine the vernacular speech of the same forty-six speakers in the three working-class communities in Belfast (Clonard, Hammer and Ballymacarrett) using the data in Milroy (1980). Drawing on Blom and Gumperz (1972) the authors suggest that integration into the local team requires contracting relationships and adopting values that mark the local community as a separate group from provincial or national entities. They constructed a Network Strength Scale (hereafter NSS) taking into account “the significance of high multiplexity and density scores as indicators of level of integration into the community”

(1980:50). Milroy and Margrain utilized two criteria for selecting the indicators to be used in constructing the scale: (a) they had to reflect the conditions repeatedly found important in predicting the extent to which normative pressures were applied by the local community and, (b) they had to be recoverable from the collected data and easily verifiable. They identified five indicators through which multiplexity and density were indirectly expressed, presented in (33) below. The first is an indicator of density whereas the other four are indicators of multiplexity.

- (33)
- a. Membership of a high density, territorially based cluster.
 - b. Having substantial ties of kinship in the neighborhood.
 - c. Working at the same places as at least two others from the same area.
 - d. The same place of work as at least two others of the same sex from the area.
 - e. Voluntary association with work mates in leisure hours (applied in practice only when conditions three and four were satisfied).

The NSS constructed with such indicators ranged between 0-5, with each indicator receiving a value of one point; individuals with low NSS scores did not fulfill any or many of the conditions whereas those with high NSS scores fulfilled most or all of them. In the statistical analysis the authors used the NSS to explain the interpersonal differences in linguistic variable scores, that is, differences in network structures as concerned language. I will not go into the many details of their findings (see Milroy and Margrain (1980:51-65)) but the results showed a correlation between a speaker's language and his or her social network structure. Some of the phonological variables functioned as markers of community loyalty, as network markers for men and women, and/or as indicators of vernacular loyalty based on the age of the speakers.

A significant difference in the distribution of NSS scores between areas, sex and age groups revealed, for instance, that men scored higher than women on the NSS. However, in the analysis of the interaction of factors such as sex and area, results indicated that while in Ballymacarrett young women had the lowest NSS scores, in Clonard women obtained the highest NSS scores, being the only female group with significantly higher NSS scores than males in the same age group. These results can be explained in terms of the type of solidary relationships these women engaged in, since in Clonard they worked and spent their free time together (comparable to the relationships existing among men), while the reverse was true for women in Ballymacarrett.

The results supported the hypothesis that closeness or loyalty to vernacular speech norms would correlate positively with the level of integration of the individual into local community networks. A link was found between closeness or loyalty to vernacular culture and high frequency of key vernacular linguistic variables throughout the community. Moreover, Milroy and Margrain found different phonological features associated with various social groups that allowed them to unveil some of the complex sociolinguistic structures of that community.

In conclusion, the authors used the concept of social networks to construct a quantitative, statistical measure of community integration, the Network Strength Scale. Since dense, multiplex network structures seem to be strongly associated with the use of vernacular forms, they claimed that “in showing this close correlation between vernacular usage and network, we have revealed the characteristic rural and working-class network structure to be an important mechanism for the maintenance of vernacular norms” (1980:67).

Network accounts also contribute to the understanding of how individuals use language to express their social identities. Such identities portray the speakers as belonging to a particular

group in which he or she uses language in a socially symbolic way. That is, speakers use phonological, grammatical and lexical features to mark social differences or divisions of what is known as *social classes*. A comprehensive analysis of the complex subject of social class is beyond the scope of this study, however, a few ideas relevant to this dissertation will be considered in section 3.5 (for an extensive account of language and social class see Guy (1988) and references therein; a sociological approach to class and stratification can be found in Crompton (2008); see Rickford (1987) for a treatment of social stratification as a variable in the development of a creole continuum in Guyana).

The language of diverse social groups is analyzed in Santa Ana and Parodi (1998). They found that several different linguistic features were associated with various social groups in a study of Spanish dialect distribution in Mexico. Although their study centers on the concept of Speech Community and not directly on Social Network Theory, they propose a reformulation to Labov's proposal that is compatible with network analysis as proposed by Milroy and Milroy (1992). The model, intended to apply in urban and non-urban domains, is another attempt to link the macro and micro levels in the study of linguistic variation. Their main finding showed that some members of the community under study did not share some aspects of the evaluation of language variation with the majority of the community, leading the authors to propose a reformulation of Labov's concept of Speech Community (see above).

Analyzing the vernacular speech of 35 native speakers²³ in the Zamora region, the authors discovered a range of linguistic variation and an uneven distribution of standard forms in the region. They also found that some speakers seemed to be unaware of the patterns of social

²³ These authors exclude from their analysis the speech of bilingual speakers whose dominant language was not Spanish. For an account of language in contact and bilingualism see Fishman (1965).

evaluation of such variation. That is, these individuals showed no sense of stigma associated with the use of certain lexical items and syntax, and they consistently used the vernacular forms even when it was evident, that for them, there was a difference between standard and non-standard forms. According to Santa Ana and Parodi, the findings suggest that in the Zamora region there are more than one and less than two classic speech communities. Taking into account the idea developed by Milroy and Milroy in social network theory that “strong social network ties link internally structured speakers into self-designating groups, and that weak social network ties connect these groups to one another” (1998:32), they proposed a typology comprising the range of linguistic variables used by the speakers of the Zamora region, from the very local group to the broader group of national speakers. Their typology is based on the degrees of recognition of sociolinguistic norms; therefore, the criterion of shared evaluation is crucial in their model.

Drawing upon Kerswill’s nested configuration (1993), they proposed a set of multiple embedded groups of speakers; their proposal “consists of classifying overlapping subsets of speakers who in one sense or another comprise a community” (1998:33). Using the linguistic variable as the only unit of measure, they were able to identify different subsets of the population from the type of linguistic variables they used. The key component of each subset was the identification of elements in a certain linguistic hierarchy, in which there were stigmatized, regional and standard variables. Their model encompassed a four-field typology in which individuals were placed (locale, vicinity, district and national) and three types of variables which they had to recognize (stigmatized, regional and national). The typology is given in Table 5 below. The binary features [$\pm$] indicate whether the individuals recognized the linguistic variables or not.

TABLE V. THE SPEECH COMMUNITY TYPOLOGY (SANTA ANA AND PARODI (1998))

	Stigma	Regional	Standard
I. Locale	-	-	-
II. Vicinity	+	-	-
III. District	+	+	-
IV. National	+	+	+

With regards to social networks, their typology was compatible with Milroy and Milroy's notions that (a) close-knit networks are established in places where there is an absence of social mobility and when people are linked through multiplex ties in a well-defined territory and, (b) that loose-knit networks generate from the existence of social and geographical mobility. In their proposal the type of ties contracted expands gradually from very close-knit in the locale field to loose-knit ties in the national field. Specifically, they posited that in the locale field, individuals were integrated into close-knit networks of extended families and very local interactions. Such restricted networks resulted in the speakers not being aware of the social values associated with the stigmatized variables (see Table 5 above). Individuals in field two (speech vicinity) were more aware of the social values of the variables and showed some knowledge of the linguistic hierarchy; they were integrated into familial close-knit networks. In field three, speech district (which corresponds to Labov's speech community), speakers recognized some stigmatized variables and they themselves had a regional accent; their involvement in the public life was greater and thus, they interacted with non-acquaintances which implies they were integrated into close-knit as well as in loose social networks. Finally, field four corresponded to the national speech community in which speakers recognized the full range of variables but probably did not use some of the variants. These speakers were also integrated in both types of network structures.

To summarize, Santa Ana and Parodi have proposed a speech community typology compatible with the concept of social network that incorporates speakers' shared social evaluation with sociolinguistic knowledge of sets of linguistic variables. Such typology, which can be extended to other language settings to describe the types of relationships of individuals in their communities, serves to link the quantitative and qualitative paradigms within sociolinguistic research.

In the next section, I will concisely present some ideas about the complex subject of social class, which is included as one of the extra-linguistic variables analyzed in most studies of language variation and change.

2.3.5. **Social Network and Social Class**

Like the construct of social network, the concept of *social class* has been widely investigated in many studies of linguistic variation and change as well as in other fields such as Sociology, Anthropology and Economics. According to Guy (1988:37) class divisions are essentially based on status and power in a society, where "status refers to whether people are respected and deferred to by others in their society...and power refers to the social and material resources a person can command, the ability (and social right) to make decisions and influence events."

Descriptions of the term vary depending on the approach taken. For instance, in Marxism, classes are the product of conflicting interests and differences in power; they are groups of people with a common role in the economic system. Alternatively, class is defined based on status and social unity as a continuum in which people are ranked according to characteristics such as education, occupation, income, etc., which suggests collective degrees of social esteem. Guy argues that even though there is not a fundamental relationship between linguistic features and

class, “the social evaluation of language differences between people obviously depends directly on differences of power, status, and class” (1988:40).

This latter approach based on status was utilized by Labov (1966) in his study of the *Social Stratification of English in New York City*, in which the people and their linguistic variables were ranked along a linear social scale referred to as socioeconomic class. Among other denominations he ended up with at least four groups or classes in the scale, namely, lower class, working class, lower middle class and upper middle class. Similarly, other researches have focused on the status and solidarity concepts to link sociolinguistic theory to social theory (for a discussion of such work see Brown and Levinson (1987)).

A somewhat different approach is the one that involves the type of linguistic demands a speaker confronts at work, that is, the *linguistic market* considered by Sankoff and Laberge (1978:239) as “an index which measures specifically how speakers’ economic activity, taken in its widest sense, requires or is necessarily associated with competence in the legitimized or standard language.” It must be noted that all these definitions apply to industrial economies and not necessarily to non-industrial ones. Guy (1988:45-47) discusses the types of challenges that non-industrial economies, like third world countries, pose to the current definitions of the term since they can have very small industrial sectors and very large agricultural sectors (i.e., a large class of peasants and agricultural laborers living in the countryside and a small working class). From a linguistic perspective, the implications are: (a) a large number of nonstandard forms; (b) the blend of many dialects and/or languages as a result of urbanization processes and, (c) the degree of difference between standard and non-standard varieties being greater than in industrial countries. As for the criterion of shared norms used to delimit a speech community, Guy points

out that it is unlikely that these communities share the same linguistic norms in the sense proposed by Labov.

The analysis of social class has also been combined with other variables, such as social networks, in the study of language variation (see, for instance, Fischer (1982), Cochran et al., (1990), Mewett (1982)). Milroy and Milroy (1992) sought to propose a sociolinguistic model incorporating both the social networks and social class variables. They considered both micro and macro levels of analysis, to which correspondingly network and class are thought to belong, as exemplifying complementary perspectives and not conflicting ones (1992:2). They assumed that most of the patterns of language variation in Belfast, where they developed their research, was best accounted for in terms of social class as a model of conflict, division and inequality while at the same time, they considered that close-knit networks (relatively dense and multiplex networks) functioned as mechanisms that allowed speakers to maintain their vernacular codes.

Milroy and Milroy claimed that the symbolic opposition standard-vernacular would depend upon the relation of resisting groups to the national economy and groups in other cities or states, rather than upon a community's intra-linguistic or interactional factors (1992:4). These authors propose that the groups within which ties are mainly weak are more susceptible to innovation than those linked internally by strong ties and that such innovations are transmitted through weak rather than strong network ties (e.g., acquaintances versus close friends).

In Belfast, they specifically analyzed the variables /a/ and /e/ in the communities of Clonard, Hammer, and Ballymacarrett. They found that the realization of the variables was affected by sex, network structure, and social class of the speaker. For instance, lengthening of /e/ had a positive correlation with women and middle class speakers whereas backing of /a/

correlated with men and working class speakers. Regarding the social networks, for /a/ the choice of variants had a higher correlation for women's network structure compared to men; on the other hand, for /e/ the correlation was higher for men's network; therefore, both segments seemed to act as network markers. Their findings also revealed that speakers with weak ties to the local networks were less likely to use the vernacular forms than those with strong ties²⁴. This may indeed suggest that outside innovation is associated with the weakening of close-knit network structures.

In the model they proposed, Milroy and Milroy integrate both network analysis and social theory. They follow the Marxist anthropologist Thomas Højrup's view of social class as a "large scale and ultimately economically driven *process* that splits populations into subgroups" (1992:18, original emphasis). The groups, considered as classes in some analyses due to their common social and economic characteristics, in Højrup's perspective are seen as *life modes*. There are three life modes: Life-mode 1 centers on the self-employed individual; Life-mode 2 is the mode of the work force, wage earners that actually perform the tasks and, Life-mode 3 is the mode of high-level skilled professional or managerial employees. Evidently there are differences in the type of network structures characteristic of each mode; for instance, in Life-mode 1 close-knit family centered networks are generated whereas in Life-mode 2 close-knit networks may be limited to the neighborhood level and looser networks may be generated if the individual becomes mobile due to his or her labor requirements (although in some countries more than others, close-knit networks might be associated with workers of this life mode). For individuals in Life-mode 3, aside from their close-knit personal networks, their ties in other networks are loose since the individuals usually are socially and geographically mobile.

²⁴ Note that these results are similar to the findings presented in Milroy and Margrain (1980).

Considering this perspective, it follows that different network structures arise as the result of differences in the conditions associated with the groups' life modes. Thus, social and linguistic behavior can be explained in terms of small scale structures rather than the concept of class. The advantage of this approach, Milroy and Milroy claimed, is that it connects the analyses of an individual's network with that of the broader political, institutional and economic levels of social structure. They emphasize that life-modes are determined by their contrast to other modes in the social structure. Therefore life-modes will change in different places depending on the practices associated with each mode in those places. In the model they suggest, the interrelations among the life-modes go from the political and socioeconomic structures of the macro level through the different modes to network structure and finally to sociolinguistic structures. An implication of such a model is that close-knit networks will associate with individuals in the Life-mode 2 in some countries more than in others. In sum, this integrated model accounts for sociolinguistic structures within a community at both the macro and micro levels of analysis, allowing the researchers to account for individual and collective linguistic variation together.

To conclude, like the revised works in the last three sections of this review, this dissertation also aims to provide a cohesive explanation of the individual and social linguistic behavior of the speakers from various rural communities in the Cibao region, combining both linguistic and social theory. Next, in the third chapter, I summarize the hypotheses and provide the list of intra and extra-linguistic as well as the network related factors that are examined in order to determine the factors that influence speakers' linguistic choices regarding semi-vocalization. I also explain the methodology implemented in the data collection including the stimuli, describe the settings where the data was gathered and the method of analysis used.

III. METHODOLOGY

In the previous chapter, I have presented a review of the most relevant theoretical and sociolinguistics accounts on semi-vocalization or liquid gliding. I have also reviewed essential concepts of social theories and the linguistic theories related to them that are pertinent for the purposes of this study. This dissertation focuses on the analysis of the phonological process known as semi-vocalization in which liquid segments become the palatal glide [j] in coda position. Using a variationist approach, I seek to determine the intra and extra-linguistic factors that have an effect on speakers' linguistic choices as semi-vocalization is concerned, hence, I look at both the phonological and sociolinguistic aspects of the process. In addition, in order to provide an explanation of speakers' individual variation I look at the factors related to the structure and content of their networks which may have an impact on their patterns of language use. The analysis of such factors will be the base for testing a series of hypotheses that are postulated considering previous findings about semi-vocalization in phonological and sociolinguistic studies as well in Social Network Theory. I present the hypotheses below.

3.1. Hypotheses

Drawing on the findings of previous phonological (Henríquez Ureña (1975); Jiménez Sabater (1975); Núñez-Cedeño and Acosta (2011)) and sociolinguistic studies (Alba (1988, 1990); Rojas (1981, 1988); Marrero et al., (1981)) and on the results of studies developed within the framework of Social Network Theory (Milroy and Milroy (1977, 1992); Milroy (1980); Milroy and Margrain (1980)), I postulate the hypotheses below.

Hypothesis 1: Semi-vocalization applies to syllable final liquids regardless of their prosodic structure (e.g., whether the liquid is in a prosodic or a function word).

Hypothesis 2: All speakers vocalize on a variable basis (i.e., they do not vocalize all the time) and the frequency of their semi-vocalization is as systematic as proposed by Henríquez Ureña (1975) and Jiménez Sabater (1975).

Hypothesis 3: There are particular social meanings associated to the use of the variants, that is, there is a correlation between semi-vocalization and extra-linguistic variables such as level of education, income, age, and speech style as indicated below.

Hypothesis 3A: Speakers with a higher level of education use fewer vocalized forms than speakers with lower levels of education.

Hypothesis 3B: Speakers with a higher income use fewer vocalized forms than speakers with lower incomes.

Hypothesis 3C: Younger speakers vocalize less than older speakers.

Hypothesis 3D: Female speakers use fewer vocalized forms than male speakers.

Hypothesis 3E: All speakers vocalize less in formal speech than in casual speech.

Hypothesis 4: An individual's language variation can be explained in terms of the structure and content of his or her personal network.

Hypothesis 4A: Individuals with more dense networks are more likely to vocalize than those with less dense networks.

Hypothesis 4B: Individuals in multiplex networks are more likely to vocalize than other in uniplex networks.

Hypothesis 4C: Individuals with close-knit (strong) ties within the local communities are more likely to vocalize than individuals with loose-knit (weak) ties to the local groups.

In order to test these hypotheses, I will consider factors presented in previous research and summarize the most relevant ones in the next section.

3.2. **The Factors**

Given the findings of some of the phonological and sociolinguistic studies reviewed above which have revealed that, on one hand, phonological context, syllabic position, type of following segment, stress and grammatical function and, on the other hand, social factors such as education, socio-economic class, age, gender and speech style have an impact on semi-vocalization, I have established a series of factors that may, likewise, have an impact on the patterns of language use and speakers' linguistic choices on the data under study in this dissertation.

An analysis of such factors, listed below in 3.2.1 and 3.2.2, will help me in the testing of some of the hypotheses. After enumerating the relevant intra and extra-linguistic factors²⁵, I indicate in 3.2.3, the factors used to measure²⁶ speakers' networks which have proven profitable to explain speakers' individual variation. Following Milroy (1980) I analyze the speakers' network structure, their network content and the type of ties they have with their community (i.e., their degree of territorial loyalty or belonging into the local group). Similar to the process followed by Milroy to measure social networks, the first factor (structure of the network), is determined by delimiting the density or level of association of the members of the group with

²⁵ Due to the characteristics (rural and mainly agricultural) of the communities under study *social class* proved not to be adequate as a factor group to explain the patterns of language use found and thus, was not included as such in the analysis. There are not clear class categories established in the communities that would allow me to group speakers into different well-defined sets. I employ instead classifications that appeared more straightforward, such as age, income and level of education.

²⁶ Similar to Milroy (1980), this study requires a *measurement* of the networks in order to perform the quantitative analysis that can help examine potential links between the networks and linguistic patterns. Also, it is needed in order to be able to compare with other factors. In line with Milroy's work I use a scale constructed with reference to important notions or indicators related to the structure and content of the networks as well as speakers' attitude towards the local groups. Such indicators, which indirectly express or measure the structure and content of the networks, are useful to determine speakers' linguistic behavior.

each other; if the people that the participant has identified as part of her network (either because she has more contact with them, they belong to her immediate personal network or she talks more frequently with them), know or are also linked to each other, that network is considered as more dense as compared to a network in which they don't know (or are linked to) each other (less dense).

Likewise, the network content is measured by establishing whether the speakers are linked to the people in their network in one (uniplex) or more (multiplex) capacities. Several interpersonal relationships are established, for instance, relative, neighbor, friend, *compadre*, godparent, boss, employee, among others and the number of capacities in which speakers are linked is tallied. This, in turn, provides the required information to establish the content of each speaker's network.

Finally, after a careful examination of Milroy's indicators for measuring participants' networks, it was necessary to delineate a series of new indicators considering that, due to the different nature of the communities under analysis in both Milroy's and in this study, only two of her indicators are valid and can be applied to the communities that I observe. I have included (see above) membership of a high-density cluster and substantial ties of kinship, however, I have excluded the indicators that measure whether the participants work or share leisure time with other people from the same area or the same gender. I have added six indicators that will help to measure speakers' degree of belonging to the local group or territorial loyalty, to be exact, the type of ties they have with their community. The indicators are: (a) participant's attitude towards the community and the outside; (b) the frequency of the interactions they develop outside the community; (c) their attitude towards mobility, that is, whether they are willing to move or not; (d) stay, which refers to whether they had lived in a place different than the community; (e) the

composition of their networks, specifically, who are the people that constitute their network and, (f) network membership, that identifies the provenance of each member of the network as either from inside or outside the community. Again, all these indicators are used as indexical of the type of local ties, weak or strong, they have with their community.

To end, the information about the participants' specific characteristics, their social networks and above all, the data these indicators generate is employed to help define whether a speaker's interpersonal relationship with other speakers can aid predict his or her individual (and eventually social) linguistic behavior, especially regarding semi-vocalization.

3.2.1. **Intra-linguistic Factors:**

- a. preceding phonological context;
- b. following phonological context;
- c. syllabic position (coda word internal and word final);
- d. type of stress of the syllable carrier of the vocalized segment;
- e. type of stress of the syllable following the vocalized segment;
- f. grammatical function of the word;
- g. type of prosodic word and,
- h. type of function word

3.2.2. **Extra-linguistic Factors:**

- a. level of education;
- b. income;
- c. age;
- d. style

3.2.3. **Network-related Factors:**

- a. network structure
- b. network content
- c. type of ties (degree of territorial loyalty or belonging to the local community)

All of these factors are examined in the data described in the next section.

3.3. **Data and Stimuli**

The data for this dissertation come mainly from a corpus collected in the summer of 2013 in the Cibao region in the Dominican Republic (see Corpus I below). The remaining, however, comes from a corpus collected earlier in the summer of 2011 in the same geographic area (see Corpus II below). Next, a description of both datasets, as well as the stimuli used for the collection of the corpora, is presented.

3.3.1. **Corpus I**

The data in Corpus I was gathered from sociolinguistic interviews recorded digitally during the summer of 2013 with 30 speakers, 8 male and 22 female, ranging between 33 and 84 years of age (average 61.5). See Appendix G for detailed information about the participants. The duration of the recorded interviews ranged from approximately 45 minutes to up to 2 hours. Speakers were born and have lived most of their lives in one of three locations in the Cibao region: Catalina Arriba, Las Escobas y Cuatro Esquinas (see Map in Appendix H). It is worth mentioning that the Dominican territory is divided into provinces, the largest geographical denomination, followed by municipalities, municipality districts, sections and hamlets. The three locations referred to above are hamlets (the smallest denomination) which are geographically

adjacent and that belong to the same sociopolitical section (a description of the settings is given in section 3.4 below).

The stimuli comprised sociolinguistic interviews as laid out in Labov (1984). The design of the interviews (see Appendices C and D) had a three-fold goal: (a) to gather demographic information about the participants; (b) to attain the largest amount of narratives possible, thus, obtaining data produced spontaneously in informal speech and, (c) to collect information about the speakers' social networks and their links to the communities under study. During the design process of the interview a series of questions were included in order to achieve the established goals, for instance, for the first goal, respondents were asked questions about their demographics including age, level of education, profession/occupation, place of residence, among others. To reach the second goal, individuals were asked about the community's history, therefore eliciting individual memories and personal stories providing ample opportunities for them to potentially generate a speech style (informal in narratives) in which they would use the most vernacular forms (e.g., semi-vocalization).

As for the third goal, a good portion of the design of the interview focused on the modules that could provide information about the speaker's interpersonal relationships (e.g., peers, family, work, school, networks). The questions included were also intended to elicit specific information about the structure of the participants' personal networks and how they were integrated into them. Originally, there was the intention of including a module to gather information that would allow me to determine the social value attached to semi-vocalization, however, once the collection process started, the module proved to be unproductive (several participants refused to reply to the questions arguing that they did not know the answers). This forced me to either reformulate the

questions or (in some cases) eliminate them altogether to be able to successfully continue the interview.

The collection process started by asking all participants roughly the same demographic questions in the same order, however, as the interviews developed, I intentionally reduced my intervention to the minimum to allow speakers to talk and produce their narratives and stories, participating only when it was necessary to advance the stories (or the interviews) or to ask questions for clarification. This is one of the conditions outlined by Labov for promoting the flow of conversation, the other two being maximizing shared knowledge and minimizing consequences. Since the results from this corpus were based mainly on an analysis of the narratives the speakers produced, their speech style was considered as informal. Besides, the first few minutes of recordings were not analyzed for any of the interviews to avoid any potential self-consciousness or formality in the speech production.

In addition, I considered the presence of two particular types of cues in the data as evidence of speakers being engaged in the production of informal, spontaneous speech, namely, when they produced mainly vernacular forms (including semi-vocalization) as opposed to standard forms and when the content of their discourse contained what can be considered as sensitive topics (e.g., gossiping, telling “secrets”, cursing, etc.). Moreover, I had the privilege of being a community insider, as I am also a member²⁷ of one of the communities under study, and furthermore, I had previously collected data in the same communities. My links to the network of many of the participants allowed me, on one hand, to identify such cues in the speech of the participants and on the other hand, to engage in interactions with speakers in which they felt

²⁷ See Mills (2006) for a discussion of a researcher who is at the same time a member of the community under study (including the performance of particular linguistic practices) and an observer or investigator of that community.

comfortable enough to talk about sensitive topics without seemingly being affected by the presence of a voice recorder.

Almost all of the interviews were conducted at the homes of the participants, whom I had previously contacted personally. Interviewing them involved not only my (sometimes several) visits to their homes but also the development of a series of other interactions which started typically over a cup (or two) of coffee and that included the expected update about the changes in my life out of the community as well as updates about the lives of both my and the participants' family members. By the time they started talking about the topics that would generate narratives they had been talking for a while not with me as an interviewer but rather as a friend, neighbor, niece, cousin, goddaughter, member of the community, etc., guaranteeing the production of informal speech.

Finally, it is important to point out that although the interviews used the same interview guides, respondents were allowed to answer these questions organically. As a result, each one of the interviews ended up being unique in that they followed the structure generated by the interviewees and the topics they developed or introduced. Thus, even though all of them at certain point provided the relevant information, the structures of their interviews were very different from one another.

3.3.2. **Corpus II**

The speech obtained from oral interviews with 6 men in Corpus II was selected for this study (Corpus II Total N=38). The participants ranged from 43 to 57 years of age (average 56) and were born, raised, and were currently living in the Cibao region at the time of the interview

(specifically, in the communities of Catalina Arriba, Las Escobas and Cuatro Esquinas). The speakers were interviewed for approximately thirty to forty minutes each.

These interviews (see stimuli in Appendices E and F) were different from those in Corpus I in that they initially served the purpose of formal elicitation and were not necessarily intended to obtain narratives and informal speech from the speakers. Since the style generated during these encounters was more careful, in the Labovian sense, the speech style in the data coming from this corpus have been labeled as more formal in comparison to the interviews described previously and thus, a lower rate of vernacular forms should be expected. The data for these six speakers were selected because they produced over the course of their reduced interview, enough data to be comparable to those of the speakers in the other data set and also, had the required information to reconstruct their social networks.

The structure of the interview for Corpus II had two parts: first, a reduced version of a Labovian sociolinguistic interview including some topics such as family, friends, and school, among others. The second part of the interviews consisted of specific questions intended to elicit the production of voiced and voiceless stop consonants in coda position word-medially and word-finally. The stimuli contained 26 items, 12 containing voiceless stops and 14 containing voiced stops in coda position. In the design of the stimuli a few issues arose. First, the number of words with stop consonants in coda position is smaller than the number of words that contains, for instance, liquids in the same position. Second, the profile of the participants (in most cases lacking or with very low levels of formal education) would not allow for the use of words that included stops in coda position if these words were not of common use (recall Henríquez Ureña's (1975) discussion about this same issue from above). It was therefore necessary to pay special

attention to the items included in the stimuli in order to get a consistent production of the items across all of the participants of the data set.

The activity designed to elicit the production of the segments consisted of asking the participants questions with an obvious, standard response. For instance, participants were asked in Spanish questions such as (1) What do you call a person that works in a hotel lobby? and (2) In a house, besides in a wardrobe, where can you put your clothes? The expected answers for these two questions were *repcionista* ‘receptionist/room clerk’ and *closet* ‘closet’, respectively. Each answer contained a word with at least one stop consonant in coda position either within the word or word final.

As was indicated earlier (see footnote 4), due to the fact that the production of vocalized stop segments is very limited in the spontaneous speech of the speakers, I have not included an account of the process in this dissertation and focus instead only on liquid semi-vocalization. Consequently, I only consider the data that contain instances of liquid semi-vocalization in the six speakers’ interviews.

Finally, even though I have recognized that there are several realizations of semi-vocalization I have indicated that I will not deal with them here. For both corpora I assume, following Golibart (1976) only one realization of the process, the palatal glide [j]. Considering that I have not determined such realizations using technological instruments, only those instances that clearly constituted at least a (version of the) realization of semi-vocalization are included. In the cases in which it was not completely clear, the tokens were not included.

3.4. **The Settings**

The data come from three locations in the Cibao region: Catalina Arriba, Cuatro Esquinas and Las Escobas which are situated in the province of María Trinidad Sánchez (see map in Appendix H). A description of the three locations is provided below.

3.4.1. **Catalina Arriba**

Catalina Arriba is a small hamlet located within the municipality of Cabrera in the province of María Trinidad Sánchez in the north coast of the country. Even though there is not much statistical information available (with regards to population, economy, etc.) about this or any of the locations examined here, it is known that from the three territories under study it is the most populated with approximately 139 inhabitants. The professional/occupational profile of its current population ranges from elderly stay-home widows to high-school teenagers, including also teachers, architects, dentists, farmers, waitresses, businessmen, among others.

Information about the history of the community is also scarce; however, the older residents repeat stories first told to them by their ancestors about how the first inhabitants were just a few families who arrived in the mid 1800s from Sosúa, Puerto Plata and Moca, places that were experiencing great mobility and progress at the time. These families settled down in unoccupied land and progressively increased their properties by annexing large extensions of surrounding areas that were also unclaimed. As a result, these few families became owners of much of the territory. Eventually, others arrived (in some cases due to their marriage with somebody from the community) and started acquiring land slowly becoming owners of large pieces of land. They dedicated the land to the agriculture, traditionally the main economic activity of the community. This land development, consequently, created a need for labor which enabled

the arrival of many other people attracted by the job opportunities (usually as farmhands) and propiciated a population growth²⁸. Eventually, these land owners passed away and their offsprings inherited split properties, which in most cases did not remain as family properties dedicated to the agriculture but rather were sold and developed as real state.

I must point out that even though agriculture remains as one important economic activity in Catalina, its current residents have various occupations which are not necessarily linked to the agriculture or developed within the community. For instance, nowadays there are several locations nearby Catalina where a touristic development has occurred, laying the basis for many residents to integrate into the workforce of the tourism (e.g., in hotels, golf courses, etc.) as waiters, gardeners, security, among others. Likewise, other inhabitants develop their professions (not directly linked to the tourism) both within and outside the community (e.g., dentists, psychologists, teachers, architects, etc.). This change in occupational profile, from agriculture to a service industry, seem to have arisen as an indirect result of the aforementioned property splitting which undoubtedly also limited the need of a labor force (see footnote 28).

A remarkable feature of this community is that it is integrated mainly by members of the original family, making the dynamics of the location very interesting for the characteristics of the networks it generates. Although there are a few unrelated families who had been living there for many years, they are still considered foreigners, much like newer residents. Catalina Arriba has been recognized as a resourceful community achieving with local efforts, for instance, the establishment of many services and modern conveniences such as electricity, tap water, a school, phone service, cable TV, paved roads, a church, a volleyball court (next to the school) as well as a school sponsorship from a foreign organization.

²⁸ Such need for labor decreased later as a result of the technical advances that allowed farmers to use machinery instead of farmhands' workforce.

The community is structured in such a way that there is a Community Council in which they discuss the issues that affect the population (solutions to the issues in most cases are extended and implemented to the two other locations under study too) as well as a School Committee composed by the parents of the students and a representation of members of the community. Even though the participation of the community as a whole in the School Committee (and the Council) decisions, is limited, education has always been an important factor common to all residents of Catalina; this is evidenced by the high rate of graduates and professionals belonging mainly to the third and fourth generations of the families from the community. Residents are also quite involved in the local Catholic Church, attending mass and religious services as well as systematically organizing other Church related celebrations. The Church can be considered as the center in which most community interactions take place. There is also a Council that serves the Church and into which many women from Catalina are integrated.

Another interesting feature of this location is the absence of any type of entertainment venues, which residents proudly link to a minimal rate of crime in the community. Residents proudly boast that one of the key attractions of Catalina is that it is a peaceful place where people live quietly and “al fresco” (referring to weather conditions). This peaceful environment has recently attracted many people from outside who had settled down in the area or constructed villas as rental properties. However, since (most of) these visitors do not blend into the community’s life, there is not a perceptual touristic development in the community in the strict sense and, since in the majority of the cases the residents do not get to know (most of) the new inhabitants, they are considered as foreigners.

Lastly, it is worth mentioning that though many grown children (some of whom are now parents themselves) have moved out of the community, they frequently and systematically visit

Catalina, and keep themselves (to some extent) involved in the dynamics developed there, making the community more diverse and updated. Further, a high sense of respect for the elderly is also quite prevalent, which generates an expectation for certain type of social and collective behavior based upon a similar deference system established by their ancestors. Lastly, it is worth noting that there are existing social statuses associated to people in the community which may be influenced by factors such as age, economic situation and even life experiences.

3.4.2. **Cuatro Esquinas and Las Escobas**

The communities of Cuatro Esquinas and Las Escobas will be described together since they are smaller than Catalina and much of their history and current social dynamics are similar, if not identical. Further, since these communities are so similar to Catalina, only those features that are considered relevant or unique to each community will be discussed. Like Catalina Arriba, both of these communities are located in the municipality of Cabrera, in the province of Maria Trinidad Sanchez. Cuatro Esquinas has a population of about 37 people whereas Las Escobas has a population of approximately 75 inhabitants. Cuatro Esquinas and Las Escobas are adjacent to Catalina, however, unlike the latter, their access roads are not paved.

In Cuatro Esquinas, although the majority of the land has always belonged to owners from outside the community, one of the main economic activities has also traditionally been the agriculture. In the 1980s, however, an intense mobility process²⁹ began resulting in a change to the community's economic profile from agriculture to services. As a result, its population has decreased significantly, due to a shortage of jobs and/or natural deaths, leaving only about 10 households in the area. Nowadays, most of the residents work elsewhere (including a few professionals, like teachers) and just a few land owners are dedicated to the agricultural work.

²⁹ It was not possible to determine the exact causes of such mobility process in part because it was impossible to find residents who could provide information about it.

Cuatro Esquinas has always been linked to Catalina for several reasons. First, Cuatro Esquinas has never had its own local school and students still commute to Catalina to attend primary and intermediate school. Secondly, its grocery stores have always been rather small, thus, forcing residents to shop in the more stocked stores in Catalina. In addition, since Cuatro Esquinas is so small, services such as electricity, tap water, phone service, etc. have been installed as an extension of Catalina's. Lastly, many of the properties have been previously owned by people that either still live or have lived in Catalina, or their ancestors, linking the two communities especially through the land work. As a result, there persists a sense of solidarity and respect (some people suggest that it has attenuated) among the residents of both locations based upon a commonality system established by their ancestors which includes visiting neighbors, especially if they are ill, offering support when there is a problem and participating in the collective social and moral kids' education. All of these characteristics combine to strengthen the sense of unity among Cuatro Esquinas and Catalina.

Most of the interactions within the community are largely centered around the church, which unlike Catalina is not Catholic. By representing a rare religious alternative in the area Cuatro Esquinas receives visitors from many surrounding areas on a regular basis.

Las Escobas was originally a very small settlement where one family established their residency in the 1920s. Later, their descendants also settled there and the location progressively developed as their own families grew. Even though both Las Escobas and Cuatro Esquinas are at walking distance from Catalina with Las Escobas being closer and have very similar characteristics, Las Escobas has been always seen more like a "suburb" of Catalina than as a community on its own. This is probably due to the fact that, with the exception of the

aforementioned territory where the referred family settled, almost the totality of the land is owned by a very small group of Catalina's residents.

This lack of independence seems to show also in the socio-economic level of its inhabitants, considered as the lowest of the three communities under study. In addition, there is no dominant socioeconomic activity in which the community bases its economy and the majority of its residents, like those of Cuatro Esquinas, work elsewhere, especially as domestic helpers, gardeners, security and farmhands. Even though there is no local school in Las Escobas either and children have to attend school in Catalina and elsewhere, an increasing number of people are becoming professionals or plan on attending college. Additionally, it must be said that although there is no church in Las Escobas, the leader of the Catalina's church resides here. This generates an interesting dynamic since most people in Las Escobas are not Catholic but rather profess the Evangelic faith like in Cuatro Esquinas. As a result, there is some religious diversity in Las Escobas, as some people go to an Evangelical church in Cuatro Esquinas and others to a Catholic one in Catalina developing their religious practices in both communities.

Las Escobas has been linked to Catalina (and indirectly to Cuatro Esquinas) for the same reasons enumerated earlier for Cuatro Esquinas (see above). Ultimately, the three communities have their own particular characteristics but also share a lot of their features and the people behave overall as a compact unit that strives to solve together the social issues they face.

Next, in the following section, I will describe the method I used to analyze the data collected in these communities.

3.5. **Method of Analysis**

The data was analyzed using *Goldvarb X* (Sankoff, Tagliamonte and Smith (2003)) for Windows. Goldvarb X is a version of the *variable rule* program (VARBRUL), a statistical tool extensively used in variationist analysis that has been designed purposely to deal with the kind of data obtained in studies of variation. It allows for easy modification of the hypotheses and reanalysis of the data. The statistical base for the program can be found in Sankoff (1988) and the procedures for the computer software are explained online at <http://individual.utoronto.ca/tagliamonte/goldvarb.html>.

Young and Bayley (1996:257) list a series of steps in conducting a VARBRUL analysis that I present below in (34). A detailed discussion of each step can be found in their study; I will just refer briefly to the process of data formatting, percentage generation using condition files and multivariate analysis (all of the details of the operation of the program can be found in the program's documentation).

(34) Steps in the conduction of a VARBRUL analysis (Young and Bayley (1996))

- a. Hypothesis generation
- b. When and when not to use VARBRUL
- c. Coding
- d. When not to code
- e. Checking the reliability of coding
- f. An initial VARBRUL run
- g. Interpreting the results
- h. Checking for interactive factor groups
- i. Recoding
- j. Second and subsequent VARBRUL runs
- k. Testing for significance of factor groups and factors
- l. Interpreting results in terms of the hypotheses

For this study, once the hypotheses were postulated and the variables and the envelope of variation or variable context (i.e., which forms counted as variants of the variables) were identified, it was necessary to format the data in a particular way because GoldVarb only stores the data in a *token file* (*.tkn), a flat-text ASCII file. Each token consisted of a string of codes or single characters, assigned before coding began, each of which represented a factor within a *factor group*; the first character of the string corresponded to the *dependent variable* (in this case the linguistic variants [l, r, j, Ø]). The program reads every sequence starting with a left parenthesis as the beginning of a token, ending with a pre-specified number of characters (see coding sheet in Appendix I) and ignoring everything else until the next parenthesis is found.

Before tokens could be stored in token files it was necessary to code the data (in order to generate the single characters that would constitute the strings). There are various options for doing this; for instance, it can be entered directly into the token file in GoldVarb, avoiding further formatting of the data (although it cannot be sorted while coding and it is a very time-consuming process that may result in coding errors) or it can be coded in a different program, like a spreadsheet in Microsoft Excel and the data can be imported to GoldVarb. I followed the latter method to code the data for this study. Excel allowed for sorting while coding; however, tokens were not automatically generated but rather they had to be modified to a format familiar to GoldVarb. Therefore, before importing the data, I used the *Concatenate* function to merge the cells into a string that the program could read (detailed instructions of how to do this appear in Walker (2010)). Finally, the token files also required instructions regarding how many factor groups would be in the string and what the *legal values* were for those factors. This was done in a *Factor Specification Window*.

When the token files were ready, GoldVarb also needed instructions to analyze the data; using a *condition file* (*.cdn) I instructed the program about which factor groups to include in the analysis and how to analyze them. In order to test the hypotheses, sometimes tokens were reconfigured and recoded in different ways, for instance, they were combined, excluded from factor groups and in certain cases, complete factor groups were excluded from the analysis. The condition files allowed for this recoding very easily without having to recode every token file individually. With the token files and condition files complete, they were loaded to the computer's memory and an *application value* (the variant corresponding to the outcome of the application of the variable rule) was set. The output of the analysis of the data is given by the program in a *result file* (*.res) which shows the distribution of tokens for all the factors in each factor group.

To determine what factors had a statistically significant impact on speakers' linguistic choice concerning a particular variant I ran a *multivariate analysis* that analyzed the contribution of each factor to the variation considering all factors simultaneously. Factor weights are usually concentrated on a value of .5, thus any value above it was considered as favoring the application value (semi-vocalization in this case) whereas a value below it disfavored it. GoldVarb only uses a binomial multivariate analysis (logistic regression), which means that there are only two possible results: application and non-application. Since the value of the application is binary the analysis cannot be carried out when there are *knockouts* (factors with no value/instances) or *singleton groups* (groups with a single value). These had to be eliminated by collapsing groups, combining factors or excluding factors or groups from the analysis.

GoldVarb measures the variance with a *log likelihood*, which determines how well the model fits the data, looking for the configuration of factors that best fits the observed distribution

of variants. The statistical significance of the effect of factor groups was determined by performing a *step up/step down* procedure; in the step up, it added each factor group and retained the groups that improved the prediction of the model in a statistical significant way; in the step down procedure it took away each factor group to see if subtracting it produced a statistically significant change in the prediction (if it did, the factor group was rejected). The best step up and step down procedures contained the same factor groups.

It is important to notice that GoldVarb assumes that all factor groups act independently of each other; therefore, it did not identify interaction between factor groups resulting from poor coding decisions, unavoidable facts about the language or distribution of the data. In general, there are a few ways of determining whether there is interaction or not, for instance, cross tabulating the factor groups or examining the results of the step up/step down procedures to see if different factor groups are being selected in the best procedures. Overcoming the interaction identified in the dataset required a recoding of the factors.

A detailed description of the results of the data analysis is included in the next chapter.

IV. RESULTS AND DISCUSSION

In this chapter I present the averages of production of the variants for the variables /l, r/, the overall rate of semi-vocalization and the results obtained from the data analysis using the statistical application Goldvarb X for Windows. In 4.1, I include the average of production of vocalized and non-vocalized variants per participant for both variables. Then, in 4.2 the findings regarding the distribution of the data (frequency of occurrences) considering the intra (4.2.1) and extra-linguistic factors (4.2.2) are displayed. Next, I present the results of the multivariate analysis for such factors (4.2.3). In 4.3, I offer the results of the analysis of the data concerning social networks, both the data distribution (4.3.1) and the multivariate analysis results (4.3.1). Finally, in 4.4, I discuss the findings in terms of the hypotheses postulated above.

4.1. **Average of Production of Variants and Overall Rate of Semi-vocalization**

Table 6 displays the average of all variants produced for variables /l/ and /r/ including all speakers. As shown, the rate of semi-vocalization was the highest with 78.8% for variable /l/ and 78.9% for variable /r/ which suggests that semi-vocalization is the most frequent process found in the data. The production of the liquid variants was 20.6% for the lateral and 16.4% for the rhotic. Furthermore, elision was only 0.6% and 4.7% for /l/ and /r/, respectively. The results demonstrate that there are systematic patterns of variation among these speakers with the production of the vocalized variant prevailing over the others analyzed, the liquid appearing as the second most frequent variable and a very low rate of elision (see Table 6).

TABLE VI. AVERAGE OF PRODUCTION OF VARIANTS FOR VARIABLES /l/ AND /r/

Semi-vocalization	Lateral	Elision
[j]	[l]	Ø
78.8 %	20.6 %	0.6 %

Semi-vocalization	Rhotic	Elision
[j]	[r]	Ø
78.9 %	16.4 %	4.7 %

Additional patterns of variation can be found in Table 7 which displays the averages of production per speaker for the variants of the variable /l/. Results are presented in decreasing age order. Only 8.3% of the speakers (N=3) vocalized less than they produced other variants, on the contrary, the majority (91.7%) of speakers (N=33) vocalized more than they produced any of the two other variants examined. There were no speakers with a greater rate of elision than production of other variants.

TABLE VII. AVERAGE OF PRODUCTION PER SPEAKER FOR VARIANTS OF VARIABLE /l/

Participant No.	Gender	Age	Semi-vocalization [j] %	Lateral [l] %	Elision Ø %
1	Male	84	94.5	5.5	0
2	Female	82	92.7	7.3	0
3	Female	78	92.6	5.6	1.8
4	Male	79	92.5	7.5	0
5	Female	76	89.1	10.9	0
6	Female	76	90.3	7.8	1.9
7	Male	74	85.2	14.8	0
8	Female	74	89.1	10.9	0
9	Female	71	78.0	20.0	2
10	Female	69	69.1	29.1	1.8
11	Female	69	93.0	4.7	2.3
12	Male	69	92.6	7.4	0
13	Male	67	90.6	7.6	1.8
14	Female	66	83.6	12.7	3.7
15	Male	65	92.7	5.5	1.8
16	Female	65	92.4	5.7	1.9
17	Male	65	68.0	32	0
18	Male	63	94.5	5.5	0
19	Male	64	88.0	12	0
20	Male	61	83.9	16.1	0
21	Female	60	53.8	46.2	0
22	Male	59	74.1	25.9	0
23	Female	57	92.6	7.4	0
24	Female	56	25.9	74.1	0
25	Male	53	69.1	30.9	0
26	Female	51	85.2	14.8	0
27	Male	50	97.7	2.3	0
28	Male	47	77.5	22.5	0
29	Female	46	90.9	9.1	0
30	Female	45	66.7	33.3	0
31	Female	45	90.9	9.1	0
32	Female	45	85.2	14.8	0
33	Female	43	77.8	22.2	0
34	Female	39	14.8	85.2	0
35	Female	34	1.9	98.1	0
36	Female	33	85.2	14.8	0

Table 8 below shows the results of the average of production of the vocalized and non-vocalized variants of variable /r/ per speaker. Again, only 8.33% (N=3) produced the rhotic more frequently than the vocalized variant and none of the speakers elided more than they produced any of the other variants. Similar to the previous results, the majority of speakers (91.7%) had a higher rate of semi-vocalization than production of other variants. These results reveal that semi-vocalization of /r/ in these specific datasets is also systematic and frequent.

TABLE VIII. AVERAGE OF PRODUCTION PER SPEAKER FOR VARIANTS OF VARIABLE /r/

Participant No.	Gender	Age	Semi-vocalization [j] %	Rhotic [r] %	Elision Ø %
1	Male	84	94.6	3.6	1.8
2	Female	82	89.1	1.8	9.1
3	Male	78	87.3	9.1	3.6
4	Female	79	80.0	16.4	3.6
5	Female	76	89.1	1.8	9.1
6	Female	76	87.3	7.3	5.4
7	Male	74	94.5	3.7	1.8
8	Female	74	88.9	7.4	3.7
9	Female	71	77.4	20.8	1.8
10	Female	69	88.8	5.6	5.6
11	Female	69	90.2	4.9	4.9
12	Male	69	78.2	18.2	3.6
13	Male	67	90.7	5.6	3.7
14	Female	66	85.2	7.4	7.4
15	Male	65	92.7	5.5	1.8
16	Female	65	85.2	3.7	11.1
17	Male	65	50.0	43.7	6.3
18	Male	64	90.3	7.8	1.9
19	Male	63	92.8	3.6	3.6
20	Male	61	83.7	4.7	11.6
21	Female	60	59.3	35.2	5.5
22	Male	59	77.2	21.1	1.7
23	Female	57	86.8	7.5	5.7
24	Female	56	20.8	73.6	5.6
25	Male	53	55.1	32.7	12.2

Participant		Semi-vocalization		Rhotic	Elision
No.	Gender	Age	[j] %	[r] %	Ø %
26	Female	51	92.3	1.9	5.8
27	Male	50	89.1	6.5	4.4
28	Male	47	84.6	11.5	3.9
29	Female	46	92.7	5.5	1.8
30	Female	45	67.3	19.2	13.5
31	Female	45	92.7	5.5	1.8
32	Female	45	81.8	18.2	0
33	Female	43	98.2	1.8	0
34	Female	39	17.3	71.2	11.5
35	Female	34	3.8	96.2	0
36	Female	33	90.7	9.3	0

Moreover, in figures 3 and 4, the results of the overall rate of semi-vocalization for variables /l/ and /r/ are presented. They show that for variable /l/ 63.9% of all speakers vocalized more than 85% of the time (from the total percentage of cases analyzed per speakers); 25% of speakers vocalized between 65% and 85% of the total amount of variants they produced whereas only 2.8% vocalized around 50% of the time. Finally, 8.3% of the speakers vocalized less than 25% of the total cases analyzed for them.

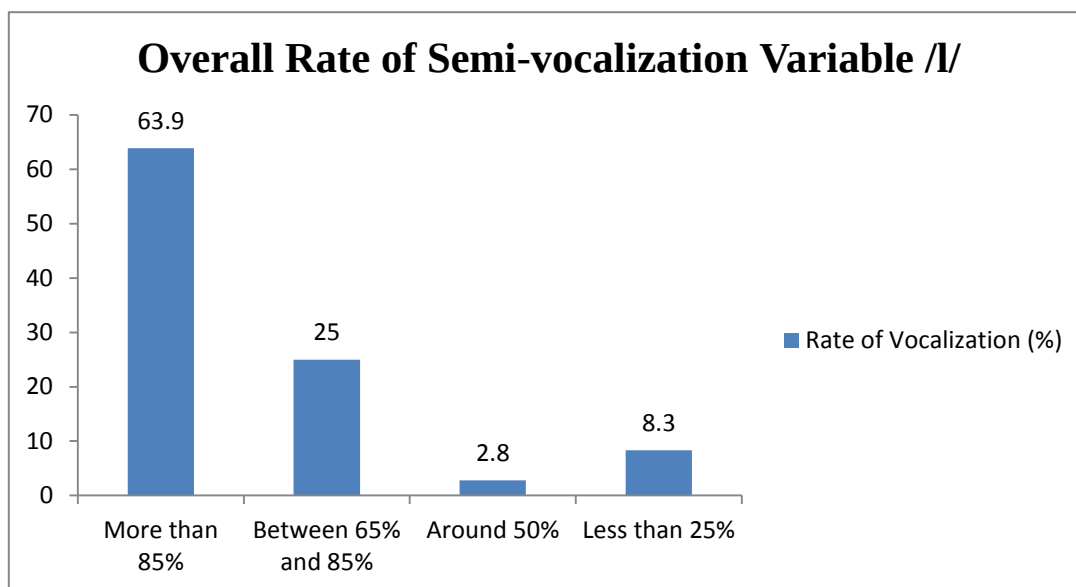


Figure IV. Overall Rate of Semi-vocalization Variable /l/

Likewise, for variable /ɾ/, 61.1% of the participants had a semi-vocalization rate of over 85% of the total amount they produced and 22.2% had between 65-85% of their total. Less than ten percent for each (8.3% each) had a semi-vocalization rate of around 50% and of less than 25%.

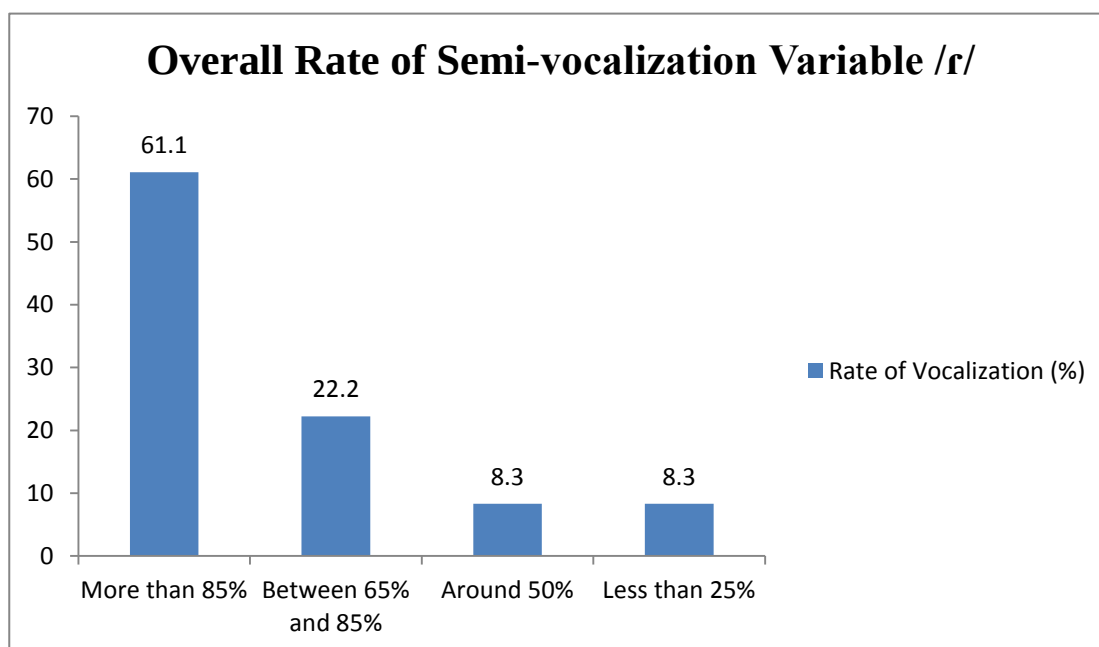


Figure V. Overall Rate of Semi-vocalization Variable /r/

4.2. Results Data Distribution Variables /l/ and /r/

This section shows the distribution of the data for variables /l/ and /r/ resulting from the analysis of all intra and extra-linguistic factor groups in Goldvarb. The statistically significant results from the multivariate analysis are included later on, indicating the factors and factor groups that have a significant impact on speakers' linguistic choices as semi-vocalization is concerned.

4.2.1. Results Data Distribution Intra-linguistic Factors Variables /l/ and /r/

Tables 9 through 16 show the results of the data distribution considering the intra-linguistic factors, namely, type of preceding vowel (9), type of following segment (10), syllabic position (11), stress of syllable carrier of the analyzed segment (12), stress of the following

syllable (13), grammatical category (14), type of prosodic word (15) and type of function word (16). Relevant comments about the results for both variables are also provided including comparisons with findings from previous studies when pertinent.

Table 9 below shows the results of the distribution of the data taking into account the preceding vowels. For the variable /l/, the results of the analyzed data set indicate that when the preceding vowel was *o*, speakers vocalized 90.4% of the total cases³⁰; when it was *a*, they vocalized a 79.7% of the total and, when the previous vowel was either *u* or *e* they vocalized 78.4% and 77.8%, respectively. These results are not surprising if, as we expect, grammatical category is not a significant factor group for this variable; if it were significant, *e* would probably appear as the preceding vowel after which the majority of cases of semi-vocalization would be produced due to a large amount of cases of ‘*el*’ analyzed both as a pronoun ‘he’ and as an article ‘the’. The results also demonstrate that for all preceding vowels there was more production of the vocalized variant (78.9%) as compared to the other two variants (21.1%).

Regarding the results for the variable /ɾ/, when the preceding vowel was *a*, speakers vocalized more (85.3%) than when it was any other vowel. When the previous vowel was *e*, speakers vocalized 83.9% of the total followed by when it was *u* and *o* with 63.6% and 61.4% of the total cases, correspondingly. These results, again, are expected if we consider a grammatical category like function word, for instance, not to be significant in this case. If function word would be significant then, *o* would have preceded a greater percentage of cases of semi-vocalization due to cases like the preposition *por* ‘for’.

³⁰ Here, total refers to the total cases found and analyzed for each preceding vowel after which the liquid was either produced as the semi-vocalized variant, as the liquid or elided.

TABLE IX. DATA DISTRIBUTION BY TYPE OF PRECEDING VOWEL
(VARIABLES /l/ AND /ɾ/)

Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
Preceding Vowel					
O	N	75	8	83	4.5
	%	90.4	9.6		
A	N	385	98	483	26.0
	%	79.7	20.3		
U	N	29	8	37	2.0
	%	78.4	21.6		
E	N	976	278	1254	67.5
	%	77.8	22.2		
Total N	N	1465	392	1857	
	%	78.9	21.1		
Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
A	N	611	105	716	38.5
	%	85.3	14.7		
E	N	569	109	678	36.5
	%	83.9	16.1		
U	N	14	8	22	1.2
	%	63.6	36.4		
O	N	272	171	443	23.8
	%	61.4	38.6		
Total N	N	1466	393	1859	
	%	78.9	21.1		

Note 1: These results (as well as all other results presented in this and the next section) show just distributional data (frequency of occurrences). Statistically significant results are shown in section 4.2.3.

Note 2: In order to simplify comparability between the results, the tables present the results for both linguistic variables together, showing first results for variable /l/ and then for variable /ɾ/.

In Table 10 below, the distribution of the data considering the type of the following segment for both variables is displayed. It shows that for variable /l/ speakers vocalized more when the following segment was a fricative (91%), followed by when it was a plosive (86.1%), a nasal (84.6%) and, a pause (77.7%). They vocalized less for this variable when the following segment was a vowel (33.2%). Yet again, speakers vocalized more than they produced other variants for all different types of following segments.

The results of the data distribution for variable /r/ by type of following segment show that speakers vocalized more frequently when the following segment was a fricative (85.3%) than when it was a pause (84.2%), a plosive (83.2%), a nasal (80.4%) or a vowel (55.4%). These results are not consistent with Rojas (1981), which found not effect of type of following segment on the frequency of semi-vocalization for any of the two variables. They are somewhat consistent, nonetheless, with Alba (1988) which reported that following vowels were the least favorable context for semi-vocalization.

TABLE X. DATA DISTRIBUTION BY TYPE OF FOLLOWING SEGMENT
(VARIABLES /l/ AND /ɾ/)

Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
Following Segment					
Fricative	N	151	15	166	8.9
	%	91.0	9.0		
Plosive	N	906	146	1052	56.7
	%	86.1	13.9		
Nasal	N	214	39	253	13.6
	%	84.6	15.4		
Pause	N	115	33	148	8.0
	%	77.7	22.3		
Vowel	N	79	159	238	12.8
	%	33.2	66.8		
Total N	N	1465	392	1857	
	%	78.9	21.1		

Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
Fricative	N	157	27	184	9.9
	%	85.3	14.7		
Pause	N	139	26	165	8.9
	%	84.2	15.8		
Plosive	N	790	160	950	51.1
	%	83.2	16.8		
Nasal	N	225	55	280	15.1
	%	80.4	19.6		
Vowel	N	155	125	280	15.1
	%	55.4	44.6		
Total N	N	1466	393	1859	
	%	78.9	21.1		

The data distribution by syllabic position for variable /l/ presented below in Table 11, shows that when the segments were in coda position word- internally speakers produced more vocalized forms (84.1%) than when the segments were in the same position word-finally (77.6%). Also displayed in Table 11 are the results considering the syllabic position for variable /r/. The results demonstrate that similar to the findings for the variable /l/ speakers vocalized more when the segment was word-internal (80.6%) than when it was word-final (77%). These results are in line with Marrero et al., (1981) which discovered a higher frequency of semi-vocalization word-internally than word-finally for the variable /r/ in their study.

TABLE XI. DATA DISTRIBUTION BY SYLLABIC POSITION (VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Syllabic Position					
Internal	N	313	59	372	20.0
	%	84.1	15.9		
Final	N	1152	333	1485	80.0
	%	77.6	22.4		
Total N	N	1465	392	1857	
	%	78.9	21.1		
Group		Semi-vocalization [j]	Non-semi-vocalization [r,Ø]	Total	%
Internal	N	765	184	949	51.0
	%	80.6	19.4		
Final	N	701	209	910	49.0
	%	77.0	23.0		
Total N	N	1466	393	1859	
	%	78.9	21.1		

As shown in Table 12 below, for variable /l/, in the cases in which the syllable carrier of the analyzed segment was stressed the data distribution demonstrates that speakers vocalized with a higher frequency (81.6%) than when the syllable was unstressed (77.2%). Similarly, for the variable /r/ in the cases in which the syllable carrier of the analyzed segment was stressed speakers vocalized more (85%) than when it was unstressed (66.8%). These results for /l/ and /r/ with regard to stress of the syllable carrier of the segment are at least partially in line with Alba (1988) that found a higher rate of semi-vocalization among stressed words as opposed to unstressed ones. The results diverge, however, in the fact that he found more weakening of the variable /l/ in stressed syllables as compared to /r/, opposite to the results presented here.

TABLE XII. DATA DISTRIBUTION BY STRESS OF SYLLABLE CARRIER
(VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Stress of Syllable Carrier					
Stressed	N	576	130	706	38.0
	%	81.6	18.4		
Unstressed	N	889	262	1151	62.0
	%	77.2	22.8		
Total N	N	1465	392	1857	
	%	78.9	21.1		
Group		Semi-vocalization [j]	Non-semi-vocalization [r,Ø]	Total	%
Stressed	N	1047	185	1232	66.3
	%	85.0	15.0		
Unstressed	N	419	208	627	33.7
	%	66.8	33.2		
Total N	N	1466	393	1859	
	%	78.9	21.1		

Whether the following syllable was stressed or unstressed was also considered in the analysis. Table 13 displays the results of the data distribution. For variable /l/ when following syllables were unstressed there was a slightly higher frequency of vocalization (79.4%) than when it was stressed (78%). It is important to reiterate that the results denote only the distribution of the data (frequency of occurrences) and thus, may not be statistically significant. Statistically significant results will be presented below (see section 4.2.3). Unlike the previous results, for variable /r/, when the syllable following the analyzed segment was stressed there was a slightly higher frequency of vocalized variants (79.6%) than when it was unstressed (78.6%).

TABLE XIII. DATA DISTRIBUTION BY STRESS OF FOLLOWING SYLLABLE
(VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Stress of Following Syllable					
Unstressed	N	915	237	1152	62.0
	%	79.4	20.6		
Stressed	N	550	155	705	38.0
	%	78.0	22.0		
Total N	N	1465	392	1857	
	%	78.9	21.1		
Group		Semi-vocalization [j]	Non-semi-vocalization [r,Ø]	Total	%
Stressed	N	360	92	452	24.3
	%	79.6	20.4		
Unstressed	N	1106	301	1407	75.7
	%	78.6	20.4		
Total N	N	1466	393	1859	
	%	78.9	21.1		

In Table 14, the results concerning the grammatical category for variable /l/ show that if the segment was in a prosodic word (e.g., verb, noun, pronoun, adjective, adverb) the frequency of semi-vocalization was higher (81.9%) as compared to (76%) when it was in a function word (e.g., article, preposition). Results regarding the same factor group for variable /r/ are also shown in Table 14 below. Similar to the results for the variable /l/, when the word was considered as prosodic, speakers vocalized 84% of the total cases whereas when it was considered as function only 44.4 % of the cases was vocalized.

TABLE XIV. DATA DISTRIBUTION BY GRAMMATICAL CATEGORY
(VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Grammatical Category					
Prosodic Word	N	750	166	916	49.3
	%	81.9	18.1		
Function Word	N	715	226	941	50.7
	%	76.0	24.0		
Total N	N	1465	392	1857	
	%	78.9	21.1		
Group		Semi-vocalization [j]	Non-semi-vocalization [r,Ø]	Total	%
Prosodic Word	N	1358	258	1616	86.9
	%	84.0	16.0		
Function Word	N	108	135	243	13.1
	%	44.4	55.6		
Total N	N	1466	393	1859	
	%	78.9	21.1		

Table 15 contains the results of the data distribution by type of prosodic word. Semi-vocalization was more frequently for variable /l/ when the type of prosodic word in which the segments were contained was a verb (91.6%), followed by nouns (81.1%), pronouns (80.7%) and adjectives or adverbs (78.7%). As for variable /r/, results show that speakers vocalized more frequently when the prosodic word was a verb (87.3%) as compared to when it was an adjective or adverb (81.4%) or a noun (79.8%).

TABLE XV. DATA DISTRIBUTION BY TYPE OF PROSODIC WORD (VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Type of Prosodic Word					
Verb	N	98	9	107	11.8
	%	91.6	8.4		
Noun	N	241	56	297	32.7
	%	81.1	18.9		
Pronoun	N	264	63	327	36.0
	%	80.7	19.3		
Adjective/Adverb	N	140	38	178	19.6
	%	78.7	21.3		
Total N	N	743	166	909	
	%	81.7	18.3		
Group		Semi-vocalization [j]	Non-semi-vocalization [r,Ø]	Total	%
Verb	N	770	112	882	54.6
	%	87.3	12.7		
Adjective/Adverb	N	140	32	172	10.7
	%	81.4	18.6		
Noun	N	447	113	560	34.7
	%	79.8	20.2		
Total N	N	1357	257	1614	
	%	84.1	15.9		

To conclude the presentation of the results considering intra-linguistic factors, Table 16 presents the results for the distribution of the data by type of function word. Results indicate that for variable /l/ when the function word was a preposition there was a higher frequency of semi-vocalization (79.9%) than when it was an article (75%). Results also denote that there was a higher production of the vocalized variants (81.9%) when the type of word was *other* (i.e., prosodic) than function.

Lastly, for the variable /r/, Table 16 shows that speakers vocalized more (84%) when the word was not function but prosodic. In the cases it was a function word, a 44.4% of the cases the word was a preposition. The other category considered was article but there are not articles with /r/ in coda position that could be analyzed for the purposes of this study.

TABLE XVI. DATA DISTRIBUTION BY TYPE OF FUNCTION WORD
(VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l, Ø]	Total	%
Type of Function Word					
Other	N	751	167	918	49.4
	%	81.8	18.2		
Preposition	N	155	39	194	10.4
	%	79.9	20.1		
Article	N	559	186	745	40.1
	%	75.0	25.0		
Total N	N	1465	392	1857	
	%	78.9	21.1		

Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
Other	N	1357	258	1615	86.9
	%	84.0	16.0		
Preposition	N	108	135	243	13.1
	%	44.4	55.6		
Total N	N	1463	393	1858	
	%	78.8	21.2		

Note: *Other* refers in this table to *Prosodic Words*

In sum, the intra-linguistic factors considered here had shed light on some of the patterns of linguistic variation found among the speakers of the communities under study, being in the majority of cases consistent with findings of previous studies about the same process. For instance, in line with our expectation of grammatical category not being significant (given Núñez-Cedeño and Acosta's findings), results showed that *e* was the least frequent preceding vowel for variable /l/ while *o* was for /ɾ/. Furthermore, results regarding following segment showed to have an effect on the frequency of occurrence of the semi-vocalization process diverging from Rojas' results.

In line with Marrero et al.,'s findings it was revealed that semi-vocalization was more frequent when the segments were word-internally than when in word-finally. Likewise, partially in line with Alba's work, results indicated that the process was more frequent when the syllable carrier of the semi-vocalized segment was stressed as compared to when it was unstressed. For variable /l/, semi-vocalization with a following unstressed syllable was more frequent than with

stressed ones; however, for variable /r/ the opposite was found. Moreover, semi-vocalization was more frequent in prosodic words than in function words for both linguistic variables, occurring more in verbs as prosodic words and prepositions as function words.

4.2.2. **Results Data Distribution Extra-linguistic Factors Variables /l/ and /r/**

Similar to the presentation of the results above, tables 17 through 21 show the data distribution for the variables /l/ and /r/ related to the extra-linguistic factors examined, that is, gender (17), age (18), income (19), level of education of speakers (20) and, speech style (21). The pertinent comments and comparisons with previous findings are also included.

Results of data distribution by gender displayed in Table 17 below indicate that male speakers vocalized more (85.9%) the variable /l/ than female speakers (75.2%) and that both speakers vocalized more (78.9%) than they produced the other variants (21.1%). The results for variable /r/ are similar to those previously shown. Male speakers vocalized more frequently (83.9%) than female speakers (76.3%). Such results are in line with Marrero et al.,’s (1981) findings that reported female speakers using more liquid variants (at least a fricative version of the variant) as compared to male speakers.

TABLE XVII. DATA DISTRIBUTION BY GENDER (VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l, Ø]	Total	%
Gender					
Male	N	544	89	633	34.1
	%	85.9	14.1		
Female	N	921	303	1224	65.9
	%	75.2	24.8		
Total N	N	1465	392	1857	
	%	78.9	21.1		

Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
Male	N	530	102	632	34.0
	%	83.9	16.1		
Female	N	936	291	1227	66.0
	%	76.3	23.7		
Total N	N	1466	393	1859	
	%	78.9	21.1		

Note: Results for both variables are presented together for ease of comparison with results for /l/ first and for /ɾ/ second.

In Table 18 the distribution of the data is shown by age groups. Speakers were divided into four age groups, that is, the oldest group (61+), the third age (51-60) group, the second age group (41-50) and the youngest group (18-40). The results reveal that the oldest speakers vocalized the variable /l/ more (86.6%) than all other groups. Likewise, the results denote that the youngest speakers vocalized less (34.1%) than the rest. It must be pointed out that this is the only case found in the data analysis in which there was a higher percentage of non-vocalized forms (65.8%) as opposed to vocalized variants (34.2%). Interestingly, the second age group unexpectedly vocalized more (83.7%) than the third age group (69%) (See discussion about this in section 4.4).

Regarding the same factor group (age), Table 18 shows that results for variable /ɾ/ are very similar to the other variable with the oldest speakers and those of the second age group (41-50) semi-vocalizing more than the youngest speakers and the third age group speakers (51-60). There was, nonetheless, only a slightly higher percentage of semi-vocalization among speakers sixty one years and older (86.9%) as compared to the second age group (86.1%). The youngest speakers

vocalized only 38.4% of the time, again, the only case for this variable in which speakers produced more non-vocalized forms (61.6%) than vocalized ones (38.4%). The fact that speakers in the oldest age group vocalized more frequently than the youngest speakers parallels results from Alba (1988) in which younger speakers disfavored semi-vocalization as compared to older speakers.

TABLE XVIII. DATA DISTRIBUTION BY AGE (VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Age					
61+	N	921	143	1064	57.3
	%	86.6	13.4		
51-60	N	187	84	271	14.6
	%	69.0	31.0		
41-50	N	302	59	361	19.4
	%	83.7	16.3		
18-40	N	55	106	161	8.7
	%	34.2	65.8		
Total N	N	1465	392	1857	
	%	78.9	21.1		

Group		Semi- vocalization [j]	Non-semi- vocalization [ɾ, Ø]	Total	%
Age					
61+	N	900	139	1039	55.9
	%	86.9	13.1		
51-60	N	207	111	318	17.1
	%	65.1	34.9		
41-50	N	298	45	343	17.1
	%	86.1	13.9		
18-40	N	61	98	159	8.6
	%	38.4	61.6		
Total N	N	1466	393	1859	
	%	78.9	21.1		

The participants were assigned to one of five different groups based on their income³¹. There are at least two male and two female participants in each group with the exception of the upper income group in which there is only one male and one female speaker. This is due to the fact that for this study speakers were not contacted taking into account their belonging into any specific economic or educational category but rather whether they were part of the communities under examination and whether they were active speakers of Cibaeño Spanish. As a result, the information collected from the interviews about their occupational/professional performance placed most of them into the lowest, low-medium and medium income groups, consistent with the socio-economic profile of the community.

³¹ These groups were established according to the wage rates set out by the Ministry of Economy of the Dominican Republic. See wage rates in the coding sheet in Appendix I.

Table 19 shows that, contrary to what was expected, speakers assigned to the upper income group vocalized the variable /l/ more (88%) than any other group. The second group that vocalized this same variable more frequently was the low-medium with 85.3%, followed by the medium income group (80.4%) and the lowest with 79.4%. The group that vocalized the least was the medium-upper with 62.5%. As illustrated by these results, there is a surprising pattern of production of the variants for /l/. See section 4.4 for a discussion about this pattern. The data distribution shown in Table 19 also illustrate that for variable *r/* from the five income groups, speakers assigned to the low-medium group vocalized more (88.1%) than speakers in any other group. They were followed by speakers in the upper income group (82.6%), those in the medium income group (81.7%), the lowest income group (77.8%) and finally, the medium-upper income group speakers were the ones that vocalized the least (61.7%). See also discussion in section 4.4.

The results detailed earlier demonstrate that there is not a defined pattern regarding this factor group which would allow me to provide a clear explanation of the linguistic variation processes attested to in the data. Therefore, it is not possible to compare with results from previous studies.

TABLE XIX. DATA DISTRIBUTION BY INCOME (VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Income					
Lowest	N	730	189	919	49.5
	%	79.4	20.6		
Low-Medium	N	348	60	408	22.0
	%	85.3	14.7		
Medium	N	127	31	158	8.5
	%	80.4	19.6		
Medium-Upper	N	165	99	264	14.2
	%	62.5	37.5		
Upper	N	95	13	108	5.8
	%	88.0	12.0		
Total N	N	1465	392	1857	
	%	78.9	21.1		
Group		Semi-vocalization [j]	Non-semi-vocalization [r,Ø]	Total	%
Lowest	N	734	209	943	50.7
	%	77.8	22.2		
Low-Medium	N	354	48	402	21.6
	%	88.1	11.9		
Medium	N	156	35	191	10.3
	%	81.7	18.3		
Medium-Upper	N	132	82	214	11.5
	%	61.7	38.3		
Upper	N	90	19	109	5.9
	%	82.6	17.4		
Total N	N	1466	393	1859	
	%	78.9	21.1		

In addition to being separated by age and income groups, for the present study speakers were also split into three different levels of education, namely, primary³², secondary and higher or graduate. In Table 20 the results for the data distribution are displayed. They indicate that for variable /l/ speakers with only primary (or any) education vocalized more (83.3%) than the other groups. Moreover, speakers with secondary and higher/graduate educational level had roughly the same frequency of semi-vocalization with 64.5% and 64.2% respectively.

Speakers with a primary level of education vocalized more (82%) the variable /r/ than those with a secondary (71.6%) and/or higher/graduate (65.4%) level of education. The results presented here are along the lines of those of Golibart (1976) which revealed that speakers with lower levels of education vocalized more than those with higher levels. Similarly, they are consistent with Alba's (1990) findings that reported speakers with low levels of education favoring semi-vocalization as compared to those speakers with a higher educational level.

³² Speakers who reported to attend school for a very short period of time as well as those who are (almost) illiterate were assigned to the primary education group. In addition, speakers were assigned to the the two other groups considering whether they had completed that specific level of education or not.

TABLE XX. DATA DISTRIBUTION BY LEVEL OF EDUCATION (VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Level of Education					
Primary	N	1189	239	1428	76.9
	%	83.3	16.7		
Secondary	N	138	77	215	11.6
	%	64.5	35.5		
Higher/Graduate	N	138	76	214	11.5
	%	64.2	35.8		
Total N	N	1465	392	1857	
	%	78.9	21.1		
Group		Semi-vocalization [j]	Non-semi-vocalization [r,Ø]	Total	%
Primary	N	1172	258	1430	76.9
	%	82.0	18.0		
Secondary	N	154	61	215	11.6
	%	71.6	28.4		
Higher/Graduate	N	140	74	214	11.5
	%	65.4	34.6		
Total N	N	1466	393	1859	
	%	78.9	21.1		

Lastly, the data distribution by speech style is presented in Table 21 below. The results denote that there were more cases of semi-vocalization in informal speech (78.8%) than in formal speech (68.3%). Recall that the data labeled as obtained from formal speech came from interviews in Corpus II which initially served the purpose of formal elicitation and thus, according to the methods laid out by Labov, it would correspond to a more careful speech style. The informal

speech comes from the sociolinguistic interviews from Corpus I; their structure followed Labov's (1984) design, focusing mainly on topics specifically addressed to lead speakers into natural conversation. During these interviews the conditions suggested by Labov (1984) were observed, namely, maximization of shared knowledge, minimization of interviewer's authority and minimization of consequences.

Table 21 also displays the results of the data distribution by speech style for variable /r/. The results show that when speakers were using an informal speech style they vocalized more (78.9%) than when they employed a formal style (57.4%). The results presented above are consistent with several previous studies which have shown that informal speech is the style in which patterns of linguistic variation and vernacular forms (e.g., semi-vocalization) are more frequently and consistently observed (see, for instance, Labov (1972)).

TABLE XXI. DATA DISTRIBUTION BY SPEECH STYLE (VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Speech Style					
Informal	N	1323	355	1678	95.3
	%	78.8	21.2		
Formal	N	56	26	82	4.7
	%	68.3	31.7		
Total N	N	1379	381	1760	
	%	78.4	21.6		
Group		Semi-vocalization [j]	Non-semi-vocalization [r,Ø]	Total	%
Informal	N	1343	360	1703	96.5
	%	78.9	21.1		
Formal	N	35	26	61	3.5
	%	57.4	42.6		
Total N	N	1378	386	1764	
	%	78.1	21.9		

The results from this section reveal certain variability on the effect some extra-linguistic factors have on the frequency of vocalization and thus, on the patterns of language use among the speakers from these communities. In line with Marrero et al.,’s findings, the results showed that male speakers use more vocalized variants than female speakers. Similarly, along the lines of Alba’s results, oldest speakers vocalize more than youngest speakers; however, in the datasets analyzed here, a clear pattern of language use could not be established for speakers in the mid-age groups. Results concerning speakers’ income also revealed unclear patterns making impossible to determine the type of relationship between such factor and the linguistic variation attested to in the data. The results for level of education showed that speakers with higher levels of education used less vocalized variants than those with a lower educational level similar to the findings reported in Golibart and Alba’s works. Finally, in accordance with findings from previous studies, especially Labov’s, the results concerning speech style revealed that speakers vocalized more using informal speech as compared to formal styles.

4.3. **Results Multivariate Analysis**

In this section I include the results of the multivariate analysis of the variables under study, that is, the statistically significant results of the impact of the intra and extra-linguistic factors and factor groups on the production of the vocalized variant. I present first the results for the variable /l/ including relevant observations about such results and next, I follow the same procedure for the results of the variable /ɫ/.

4.3.1. **Results Multivariate Analysis (Variable /l/)**

Table 22 below shows the results of the multivariate analysis performed to the data corresponding to the variable /l/ considering the intra and extra-linguistic factors. The table

includes the factors and factor groups that contribute significantly to the speakers' linguistic choices concerning semi-vocalization, that is, the groups that have a statistically significant effect on the production of semi-vocalization by the speakers on these datasets. Factor groups (and below them the factors they group) are presented at the leftmost side of the table, then their statistical value or factor weights are immediately to the right of the factor groups. Recall that factor weights are concentrated on a value of .5 with values above it considered as favoring semi-vocalization and values below it disfavoring the process. For the purposes of this study a value of .5 or even .51 will be considered as neither favoring nor disfavoring the process.

The percentage of occurrence is also presented (%) and to the rightmost side of the table, the number of cases analyzed (N) in the data is shown. The range for each factor group has also been included; it refers to the relative strength of each factor group within the analysis and is obtained by subtracting the largest factor weight from the smallest weight in each factor group. It allows for the establishment of a contribution ranking of the factor groups to the semi-vocalization process with those factor groups with a higher range value contributing more or having a greater impact on semi-vocalization than those with a lower range value (see Table 23 for a complete list of significant factor groups and the range ranking). Finally the log likelihood (a measure of how well the model fits the data) and the significance value are also included at the bottom of the table. The table format just described will be used to present all results of multivariate analyses in this study.

As Table 22 illustrates, age had the most significant impact (range: .56) on speakers' linguistic choices concerning semi-vocalization with speakers at age sixty one and older (0.62) and those in the second age (41-50) group (0.59) favoring semi-vocalization and speakers in the third age (51-60) group (0.26) and youngest speakers (18-40) disfavoring the process (0.06). It

should be noted that, in general terms, the premise of the oldest speakers semi-vocalizing more than the youngest speakers is maintained here, however, the variability among the mid-age groups is still also present.

The type of following segment appears as the second factor group with the highest impact on semi-vocalization (range: 43), showing as statistically significant. Following fricative, plosive and nasal segments favored semi-vocalization with values of 0.69, 0.64 and 0.56, respectively. On the contrary, following pauses and vowels disfavored semi-vocalization with values of 0.26 and 0.06, correspondingly. These findings are somewhat consistent with Alba (1990) who found similar results for following fricatives and vowels in his study. Income was the third most relevant factor group with a range value of 39. Speakers in the low-medium, medium and upper income groups favored semi-vocalization with 0.65, 0.56 and 0.54, respectively, while speakers in the lowest and medium-upper income groups disfavored it with values below .5 (0.48 and 0.26).

Preceding vowel also showed as statistically significant with a range value of 35 (the fourth most relevant factor group). The vowel that favored the most the process was *o* (0.81) followed by *a* (0.52). Both *e* (0.46) and *u* (0.43) disfavored semi-vocalization (see my remarks above about why these findings are not surprising). Lastly, stress of the syllable carrier of the analyzed segment and syllabic position also appeared as significant factor groups with respective range values of 26 and 25. Stressed syllables favored semi-vocalization (0.65) whereas unstressed ones disfavored it (0.40). As for the position, word-final favored (0.55) the application of semi-vocalization while word-internal disfavored the process (0.30).

TABLE XXII. SEMI-VOCALIZATION: INTRA AND EXTRA-LINGUISTIC FACTORS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /l/

	Total N: 1857		
	Input: 0.864		
Age		%	N
61+	0.62	86.6	921
41-50	0.59	83.7	302
51-60	0.26	69.0	187
18-40	0.06	34.2	55
	Range: 56		
Following Segment			
Fricative	0.69	91.0	151
Plosive	0.64	86.1	906
Nasal	0.56	84.6	214
Pause	0.26	77.7	115
Vowel	0.05	33.2	78
	Range: 43		
Income			
Low-Medium	0.65	85.3	348
Medium	0.56	80.4	127
Upper	0.54	88.0	95
Lowest	0.48	79.4	730
Medium-Upper	0.26	62.5	165
	Range: 39		
Preceding Vowel			
O	0.81	90.4	75
A	0.52	79.7	385
E	0.46	90.4	75
U	0.43	78.4	29
	Range: 35		
Stress of the Syllable Carrier			
Stressed	0.65	81.6	576
Unstressed	0.40	77.2	889
	Range: 26		
Syllabic Position			
Final	0.55	77.6	1152
Internal	0.30	84.1	313
	Range: 25		
Log likelihood = -640.678			
Significance = 0.004			

To conclude, in Table 23 below a summary of the relevant factor groups is displayed as well as the determined range ranking. Briefly, age, following segment, income, preceding vowel, stress of the syllable carrier and syllabic position appeared as significant in that ordered ranking while stress of the following syllable, grammatical function, type of both prosodic and function word, gender, level of education and speech style were not significant.

TABLE XXIII. SIGNIFICANT FACTOR GROUPS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /I/ AND RANGE RANKING

Significant Factor Groups	
Factor Group	Range Ranking
Age	56
Following Segment	43
Income	39
Preceding Vowel	35
Stress of the Syllable Carrier	26
Syllabic Position	25
No Significant Factor Groups	
Factor Group	
Stress of the Following Syllable	
Grammatical Function	
Type of Prosodic Word	
Type of Function Word	
Gender	
Level of Education	
Speech Style	

4.3.2. **Results Multivariate Analysis (Variable /r/)**

Below, Table 24 displays the results of the multivariate analysis of the data corresponding to the variable /r/. Next, in Table 25, I offer a list of the significant factor groups as well as the range ranking.

Similar to the results presented earlier, age is the factor group with the highest impact on speakers' choices as semi-vocalization is concerned with a range value of 60. In this case the oldest speakers (61+) and the second age (41-50) group also favored semi-vocalization (0.67 and 0.62, respectively) while the third age (51-60) group and the youngest speakers (18-40) disfavored it (0.23 and 0.07 correspondingly).

Unlike the significant factor groups for /l/, in the case of the variable /r/ grammatical category showed to be statistically significant with a range value of 46. Prosodic words favored semi-vocalization (0.57); however, function words disfavored it (0.11). As for the third most important factor group it was type of following segment with a range value of 44; plosives had the highest factor weight (0.61) followed by fricatives (0.59). Nasals neither favored nor disfavored the process (0.50) whereas both pauses and vowels disfavored semi-vocalization (0.35 and 0.17, accordingly).

In addition, income, level of education and speech style had all the same impact on semi-vocalization with an identical range value of 33. Speakers from the low-medium income group favored semi-vocalization (0.70) whereas those from the medium income group neither favored nor disfavored it (0.50). On the contrary, speakers from the lowest, upper and medium-upper income groups disfavored it (0.44, 0.39 and 0.37, correspondingly). As for level of education speakers with secondary education favored semi-vocalization (0.62), those with primary

education neither favored nor disfavored it (0.51) whereas the results show that speakers with higher/graduate education disfavored it (0.29). Regarding speech style, formal speech disfavored semi-vocalization (0.18), nonetheless, informal speech neither favored nor disfavored the process (0.51), thus, statistically it had not real effect on semi-vocalization.

Finally, two other factor groups showed to be significant for this variable: the type of prosodic word (range: 21) and the syllabic position (range: 20). In the cases when the prosodic words were verbs, semi-vocalization was favored (0.59); however, when they were either nouns or adjectives/adverbs it was disfavored (0.38 in each case). The syllabic position that favored the process was word-internal (0.60) and the position that did not was word-internal (0.40).

TABLE XXIV. SEMI-VOCALIZATION: INTRA AND EXTRA-LINGUISTIC FACTORS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /r/

Total N: 1859 Input: 0.870			
Age		%	N
61+	0.67	86.6	900
41-50	0.62	86.9	298
51-60	0.23	65.1	207
18-40	0.07	38.4	61
Range: 60			
Grammatical Category			
Prosodic Word	0.57	84.0	1385
Function Word	0.11	44.4	108
Range: 46			
Following Segment			
Plosive	0.61	83.2	790
Fricative	0.59	85.3	157
Nasal	0.50	80.4	225
Pause	0.35	84.2	139
Vowel	0.17	55.4	155
Range: 44			

Income				
Low-Medium	0.70	88.1	354	
Medium	0.50	81.7	156	
Lowest	0.44	77.8	734	
Upper	0.39	82.6	90	
Medium-Upper	0.37	61.7	132	
	Range: 33			
Level of Education				
Secondary	0.62	71.6	154	
Primary	0.51	82.0	1172	
Higher/Graduate	0.29	65.4	140	
	Range: 33			
Speech Style				
Informal	0.51	78.9	1343	
Formal	0.18	57.4	35	
	Range: 33			
Type of Prosodic Word				
Verb	0.59	87.3	770	
Noun	0.38	79.8	447	
Adjective	0.38	81.4	140	
	Range: 21			
Syllabic Position				
Final	0.60	77.0	701	
Internal	0.40	80.6	765	
	Range: 20			
Log likelihood = -658.200				
Significance = 0.152				

Table 25 displays a summary of the relevant factor groups and the range ranking for variable /r/. As evidenced, age, grammatical category, following segment, income, speech style, level of education, type of prosodic word and syllabic position revealed all as significant factor groups (in that order of significance) whereas preceding vowel and stress of both the syllable carrier and the following syllable were not significant.

TABLE XXV. SIGNIFICANT FACTOR GROUPS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /ɛ/ AND RANGE RANKING

Significant Factor Groups	
Factor Group	Range Ranking
Age	60
Grammatical Category	46
Following Segment	44
Income	33
Speech Style	33
Level of Education	33
Type of Prosodic Word	21
Syllabic Position	20
No Significant Factor Groups	
Factor Groups	
Preceding Vowel	
Stress of the Syllable Carrier	
Stress of the Following Syllable	
Type of Function Word	
Gender	

The results of the data distribution as well as the multivariate analysis presented above show that there is a more clear relationship between intra than extra-linguistic factors and patterns of language use and thus, on the effect such factors have on speakers' linguistic variation, specifically on semi-vocalization. This seems to indicate that intra-linguistic factors may be able to explain variation patterns more consistently than extra-linguistic factors in these datasets. There remain some unanswered questions related to the extra-linguistic factors since, as it was observed earlier, factors such as income cannot reliably be used to explain the variation patterns of language use of these speakers. In addition, although in general terms education appears as a more consistent factor group, by itself it is unable to satisfactorily explain the variation found among speakers in the mid-age groups.

Taking this into account, I argue that the differences in the patterns of language use between the groups under study here may be associated to individual differences of speakers within groups, hence, a look at the individuals' speech and characteristics as well as at their interpersonal relations with other members of their communities could offer some insights into the language choices they make. See section 4.3 below where I explain the results of the examination of factors related to the speakers' social networks.

4.4. **Results Factors Related to Speakers' Social Networks**

In this section, I present the results of data analysis on the factors related to the speakers' social networks. It will illustrate certain individuals' characteristics, their interpersonal relationships with other speakers as well as their patterns of language use. First, I will display in 4.3.1 the distribution of the data for both variables including relevant comments about the findings and then, I will show the results of the multivariate analysis in 4.3.2.

4.4.1. **Results Data Distribution Factors Related to Speakers' Social Networks**

Tables 26 through 34 show the distributions of the data (frequency of occurrences) considering the factors related to the speakers' social networks for both variables, that is, the network structure (26), network content (27), network composition (28), network membership (29), attitude towards the community (30), frequency of interactions outside the community (31), mobility (32), stay inside/outside the community (33) and, type of ties or degree of territorial loyalty (34). The relevant remarks about the results are also included.

Table 26 displays the results of the data analysis considering the structure of the network, that is, whether the network was more or less dense. Contrary to the expected, for both variables, speakers with more dense networks vocalized less than those with less dense networks, meaning

that speakers who were linked to people that were also linked to or knew each other vocalized slightly less (78.7%) than those whose connections were not necessarily linked to (at least directly) or knew each other (79.2%). The frequency of semi-vocalization is the same for both variables (79.2%). Similar to the results reported previously, the total percentage of semi-vocalization was 78.8% as compared to the production of the other variants under study (21.2%).

The results presented here for the speakers' network structure differ from findings reported by Milroy (1980, 1982) which found a higher rate of vernacular forms among speakers with more dense networks. This suggests that network structure does not have the expected effect on the frequency of semi-vocalization of these speakers which eventually may indicate that this factor is not adequate to explain the patterns of language use identified in the datasets of this study. Consequently, I consider other factors (see below).

TABLE XXVI. DATA DISTRIBUTION BY NETWORK STRUCTURE (VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Network Structure					
Less Dense	N	395	104	499	26.8
	%	79.2	20.8		
More Dense	N	1072	291	1363	73.2
	%	78.7	21.3		
Total N	N	1467	395	1862	
	%	78.8	21.2		

Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
Less Dense	N	410	108	518	27.9
	%	79.2	20.8		
More Dense	N	1054	285	1339	72.1
	%	78.7	21.3		
Total N	N	1464	393	1857	
	%	78.8	21.2		

Following Milroy and Bott's studies, speakers' network content was also analyzed; the results are shown in Table 27. They denote that speakers belonging to multiplex networks vocalized more (79.9% for /l/ and 80.7% for /ɾ/) than those belonging to uniplex networks (74.4% and 69.8% correspondingly). That is to say that speakers connected to people in more than one capacity (e.g., neighbor, friend, relative, *compadre*, etc.) had higher rates of semi-vocalization than those linked to others in only one capacity (e.g., neighbor). The results are consistent with both Milroy (1980, 1992) and Bott's (1971) works which found higher rates of vernacular forms in speakers with multiplex networks than those in uniplex networks. Network content, hence, seems to have the expected effect on the frequency of the semi-vocalization process analyzed in this study.

TABLE XXVII. DATA DISTRIBUTION BY NETWORK CONTENT (VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l,Ø]	Total	%
Network Content					
Multiplex	N	1235	315	1550	83.2
	%	79.7	20.3		
Uniplex	N	232	80	312	16.8
	%	74.4	25.6		
Total N	N	1467	395	1862	
	%	78.8	21.2		
Group		Semi-vocalization [j]	Non-semi-vocalization [r,Ø]	Total	%
Multiplex	N	1240	296	1536	82.7
	%	80.7	19.3		
Uniplex	N	224	97	321	17.3
	%	69.8	30.2		
Total N	N	1464	393	1857	
	%	78.8	21.2		

Even though this dissertation is intended to test hypotheses taking into account the structure (i.e., density) and content (whether they are multiplex or uniplex) of the networks, I have suggested above that since network structure does not seem to be a factor able to effectively explain the patterns of language use observed here, it may be pertinent to include other factors. Therefore, I have also considered an analysis of the specific composition of the network, to be precise, an examination of the individuals who integrate the speakers' personal networks which may cast light on the effects of the interpersonal relationships among speakers on their language

choices. Based upon the information gathered in the interviews³³, three categories were established: relatives, neighbors and friends. These were the people the participants identified as whom they had more contact with (their direct connections), who belonged to their immediate personal network (the people who were closer to them as compared to any other person either inside or outside the community) or with whom they talked more.

The networks were composed by either one or several of these categories. As seen in Table 28 shows that for variable /l/, speakers vocalized more when their networks were composed by a combination of neighbors and friends (98.1%), followed by only relatives (88.6%), a mix of relatives, neighbors and friends (82.2%) and, relatives and neighbors (80.3%). Those speakers with networks integrated by relatives and friends (65.8%) and only neighbors (39.3%) vocalized the least. Regarding the variable /ɾ/, speakers with networks integrated by relatives only vocalized the most (88.3%) followed by those with a combined network of relatives, neighbors and friends (82.3%), relatives and neighbors (81.7%), neighbors and friends (77.8%) and relatives and friends (66%) ending with networks integrated by neighbors only (38.7%).

³³ In Corpus I there were specific questions addressed to elicit information about speakers' networks. The same type of information was reconstructed from the reduced interviews with speakers in Corpus II.

TABLE XXVIII. DATA DISTRIBUTION BY NETWORK COMPOSITION (/l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [ɹ, Ø]	Total	%
Network Composition					
Neighbors + Friends	N	53	1	54	2.9
	%	98.1	1.9		
Only Relatives	N	240	31	271	14.6
	%	88.6	11.4		
Relatives + Neighbors + Friends	N	323	70	393	21.1
	%	82.2	17.8		
Relatives + Neighbors	N	703	173	876	47.0
	%	80.3	19.7		
Relatives + Friends	N	106	55	161	8.6
	%	65.8	34.2		
Only Neighbors	N	42	65	107	5.7
	%	39.3	60.7		
Total N	N	1467	395	1862	
	%	78.8	21.2		
Group		Semi-vocalization [j]	Non-semi-vocalization [ɹ, Ø]	Total	%
Only Relatives	N	233	31	264	14.2
	%	88.3	11.7		
Relatives + Neighbors + Friends	N	340	73	413	22.2
	%	82.3	17.7		
Relatives + Neighbors	N	701	157	858	46.2
	%	81.7	18.3		
Neighbors + Friends	N	42	12	54	2.9
	%	77.8	22.2		
Relatives + Friends	N	107	55	162	8.7
	%	66.0	34.0		
Only Neighbors	N	41	65	106	5.7
	%	38.7	61.3		
Total N	N	1464	393	1857	
	%	78.8	21.2		

In addition to the composition of the networks examined above, another factor I have included is networks' membership, explicitly, the origin (either from inside or outside of the community) of the members of the networks, the people who were identified by the speakers as their direct connections, belonging to their immediate personal network and/or with whom they talked more.

Table 29 shows the results of the data distribution. Only the frequency changes for both variables, however, the ranking is the same. In other words, speakers with networks whose members were from both inside and outside of the community vocalized more (82.6% for /l/ and 81.4% for /ɾ/) than when the members were only from within the community (79.4% for /l/ and 79.7% for /ɾ/), but they vocalized the least for both variables when the members of their networks were mostly from outside the community (70.7% for /l/ and 72.8% for /ɾ/).

TABLE XXIX. DATA DISTRIBUTION BY NETWORK'S MEMBERSHIP
(VARIABLES /l/ AND /ɾ/)

Group		Semi- vocalization [j]	Non-semi- vocalization [l,Ø]	Total	%
Networks' Membership					
Inside/Outside	N	672	142	814	43.7
	%	82.6	17.4		
Only Inside	N	496	129	625	33.6
	%	79.4	20.6		
Mostly Outside	N	299	124	423	22.7
	%	70.7	29.3		
Total N	N	1467	395	1862	
	%	78.8	21.2		

Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
Inside/Outside	N	661	151	812	43.7
	%	81.4	18.6		
Only Inside	N	484	123	607	32.7
	%	79.7	20.3		
Mostly Outside	N	319	119	438	23.6
	%	72.8	27.2		
Total N	N	1464	393	1857	
	%	78.8	21.2		

There were three different types of attitude towards the community identified among the speakers in the datasets, namely, positive, neutral and negative. In Table 30 the results of the data distributions considering this factor group are shown. The results demonstrate that speakers with a positive attitude towards the community vocalized more (84.3% for /l/ and 82% for /ɾ/) than speakers that had either a neutral (75.8% and 78.3% respectively) or a negative (75.3% and 74.5% correspondingly) attitude towards the community.

TABLE XXX. DATA DISTRIBUTION BY SPEAKERS' ATTITUDE TOWARDS THE COMMUNITY (VARIABLES /l/ AND /ɾ/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l, Ø]	Total	%
Attitude towards the Community					
Positive	N	568	106	674	36.2
	%	84.3	15.7		
Neutral	N	618	197	815	43.8
	%	75.8	24.2		
Negative	N	281	92	373	20.0
	%	75.3	24.7		
Total N	N	1467	395	1862	
	%	78.8	21.2		

Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
Positive	N	534	117	651	35.1
	%	82.0	18.0		
Neutral	N	653	181	834	44.9
	%	78.3	21.7		
Negative	N	277	95	372	20.0
	%	74.5	25.5		
Total N	N	1464	393	1857	
	%	78.8	21.2		

In Table 31, the results considering the frequency of interaction speakers developed outside the community are displayed. For both variables speakers who sporadically (86.2% for /l/ and 87.7% for /ɾ/) or rarely (85.2% and 87.2% respectively) had interactions outside of the community vocalized more than those who frequently did (74% and 73.1% correspondingly).

TABLE XXXI. DATA DISTRIBUTION BY FREQUENCY OF INTERACTION OUTSIDE THE COMMUNITY (VARIABLES /l/ AND /ɾ/)

Group		Semi-vocalization [j]	Non-semi-vocalization [l, Ø]	Total	%
Frequency of Interaction outside the Community					
Sporadically	N	269	43	312	16.8
	%	86.2	13.8		
Rarely	N	391	68	459	24.7
	%	85.2	14.8		
Frequently	N	807	284	1091	58.6
	%	74.0	26.0		
Total N	N	1467	395	1862	
	%	78.8	21.2		

Group		Semi- vocalization [j]	Non-semi- vocalization [ɾ, Ø]	Total	%
Sporadically	N	272	38	310	16.7
	%	87.7	12.3		
Rarely	N	380	56	436	23.5
	%	87.2	12.8		
Frequently	N	812	299	1111	59.8
	%	73.1	26.9		
Total N	N	1464	393	1857	
	%	78.8	21.2		

The attitude of the participants towards mobility was also analyzed, specifically, whether speakers would be willing to move out of the communities under study. The results are shown in Table 32 below. They indicate that speakers who responded that they would move vocalized more (94.8% for /l/ and 82.6% for /ɾ/) than those who replied that they would not move (78.4% and 78.6%, respectively). It is important to specify, however, that speakers who stated that they would move out of the community did so only if certain hypothetical conditions were met, for instance, in the case they were to get sick and have to move to receive better health care or in a situation where they would get a better job. Otherwise, they stated that they would stay in the community. The speakers for whom it could not be determined whether they would move or not (displayed in the table as *unknown*) vocalized the least (71.5% for /l/ and 74.3% for /ɾ/).

TABLE XXXII. DATA DISTRIBUTION BY ATTITUDE TOWARDS MOBILITY
(VARIABLES /l/ AND /r/)

Group		Semi- vocalization [j]	Non-semi- vocalization [ɾ, Ø]	Total	%
Mobility					
Yes (under conditions)	N	537	96	633	34.0
	%	84.8	15.2		
No (would not move)	N	584	161	745	40.0
	%	78.4	21.6		
Unknown	N	346	138	484	26.0
	%	71.5	28.5		
Total N	N	1467	395	1862	
	%	78.8	21.2		
Group		Semi- vocalization [j]	Non-semi- vocalization [ɾ, Ø]	Total	%
Yes (under conditions)	N	526	111	637	34.3
	%	82.6	17.4		
No (would not move)	N	574	156	730	39.3
	%	78.6	21.4		
Unknown	N	364	126	490	26.4
	%	74.3	25.7		
Total N	N	1464	393	1857	
	%	78.8	21.2		

As for the analysis of whether the speakers would have stayed either inside or outside the communities under study, the results are presented in Table 33. Whether the respondents had lived only within the communities of study, in similar rural towns, in larger (either rural or urban) towns or in Santo Domingo, the capital, were taken in consideration. The results denote that for both variables speakers who had lived in the capital vocalized the most (88% and 87.9%

respectively for the variables /l/ and /ɾ/) followed by speakers who had lived in a similar rural town (81.7% for /l/ and 81.3% for /ɾ/) and those who had lived in a larger rural or urban town (78.9% and 80.3% respectively). The speakers who had never lived outside of the community vocalized the least (60.6% for /l/ and 58.7% for /ɾ/) as compared to speakers in all other groups.

TABLE XXXIII. DATA DISTRIBUTION BY STAY INSIDE/OUTSIDE OF THE COMMUNITY (VARIABLES /l/ AND /ɾ/)

Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
Stay					
Capital	N	191	26	251	11.7
	%	88.0	12.0		
Similar Rural Town	N	704	158	862	46.3
	%	81.7	18.3		
Larger (Rural/Urban) Town	N	420	112	532	28.6
	%	78.9	21.1		
Within Community Only	N	152	99	251	13.5
	%	60.6	39.4		
Total N	N	1467	395	1862	
	%	78.8	21.2		
Group		Semi-vocalization [j]	Non-semi-vocalization [ɾ, Ø]	Total	%
Capital	N	188	26	214	11.5
	%	87.9	12.1		
Similar Rural Town	N	719	165	884	47.6
	%	81.3	18.7		
Larger (Rural/Urban) Town	N	415	102	517	27.8
	%	80.3	19.3		
Within Community Only	N	142	100	242	13.0
	%	58.7	41.3		
Total N	N	1464	393	1857	
	%	78.8	21.2		

Finally, the types of ties or degree of loyalty the participants had with their territories was the last factor examined. An analysis of the indicators used to measure whether the participants' ties to their local groups were weak or strong revealed that for only 25% of the participants (N=9) the ties with their communities or local groups were weak whereas for the remaining 75% the ties were strong. The results of the data distribution are shown in Table 34. For both variables speakers with a strong degree of territorial loyalty vocalized more (79.8% for /l/ and 79.6% for /r/) than those with a weaker degree of loyalty (75.6% for /l/ and 76.5% for /r/). These results are also consistent with both the works of Milroy and Bott mentioned earlier which described similar findings.

TABLE XXXIV. DATA DISTRIBUTION BY TYPE OF TIES OR DEGREE OF TERRITORIAL LOYALTY (VARIABLES /l/ AND /r/)

Group		Semi-vocalization [j]	Non-semi-vocalization [ɹ, Ø]	Total	%
Type of Ties or Degree of Territorial Loyalty					
Strong	N	1124	284	1408	75.6
	%	79.8	20.2		
Weak	N	343	111	443	24.4
	%	75.6	24.4		
Total N	N	1467	395	1862	
	%	78.8	21.2		
Group		Semi-vocalization [j]	Non-semi-vocalization [ɹ, Ø]	Total	%
Strong	N	1125	289	1414	76.1
	%	79.6	20.4		
Weak	N	339	104	443	23.9
	%	76.5	23.5		
Total N	N	1464	393	1857	
	%	78.8	21.2		

Above I have presented the results of the data distribution of the factors related to the speakers' social networks that were considered in this study for both variables. Below, I include the outcomes of the multivariate analysis with the statistically significant results of such factors.

4.4.2. **Results Multivariate Analysis Factors Related to Speakers' Social Networks**

In this section I show the results of the multivariate analysis that illustrate which factors related to the networks of the speakers considered in this study had a significant effect on their patterns of language use as concerns semi-vocalization.

4.4.2.1 **Results Multivariate Analysis Factors Related to Social Networks (Variable /l/)**

Table 35 shows the results of the multivariate analysis for the referred factors for variable /l/. Next, Table 36 offers a list of the significant factor groups and the range ranking for this variable.

The factor group with the greatest effect on semi-vocalization (range: 71) was the composition of the speakers' networks with those participants whose networks were composed by (a) a mix of relatives, neighbors and friends (0.77), (b) neighbors and friends (0.65) and (c) relatives only (0.61) favoring semi-vocalization and speakers whose networks were composed by (a) relatives and friends (0.44), (b) relatives and neighbors (0.39) and (c) neighbors only (0.06) disfavoring the process.

The second factor group that showed as statistical significant was mobility, whether speakers would be willing to move out of the community or not. Both the participants who reported that they would move (but recall that only under certain conditions) (0.67) as well as those who reported that they would not (0.54) favored semi-vocalization. On the contrary, speakers for which there was not information about mobility disfavored the process (0.22). This

seems to suggest that in this community mobility is actually not a relevant factor that enable us to clearly explain the variation patterns of language use among these speakers.

Network content also appeared to be a significant factor group (range: 44). Speakers with multiplex networks favored semi-vocalization (0.59) while participants with uniplex networks disfavored it (0.44). The frequency of interactions outside the community constituted the fourth significant factor group with a range value of 43. Speakers who sporadically (0.76) and rarely (0.72) interacted out of the community favored vocalization whereas speakers whose interactions were developed frequently outside disfavored the process (0.33). This is not surprising if we consider that within-community interactions may act more as stronger mechanisms of linguistic norm enforcement (with the norm being a higher rate of semi-vocalization in this case), than outside-community interactions.

The place where speakers have lived also showed to be significant (range: 43). Participants who had either lived in Santo Domingo, the capital (0.67), in a similar rural town (0.59) or in a larger rural or urban town (0.53) favored semi-vocalization; speakers who had stayed within their community all of their lives, however, disfavored semi-vocalization (0.17). It is not exactly clear why this may be the case. See discussion below.

Speakers' attitude towards the community was also statistically significant (range: 32). Those with a positive (0.59) and neutral (0.53) attitude towards the community favored the process and those with a negative attitude disfavored it (0.27). Two other factor groups showed as significant, namely, network structure (range: 20) and network's membership (range: 16). Regarding the structure of the network, contrary to the expected, speakers with less dense networks favored (0.64) semi-vocalization, however, when they had more dense networks the

process was disfavored (0.44). As for the members of the speakers' personal networks, in the case in which they were composed by people from both inside and outside (0.55) it favored semi-vocalization. Similarly, when the members of the networks were most from outside it was favored (0.55). In the case in which the networks were composed by members from within the community under study only, it disfavored semi-vocalization (0.39). See a discussion about this in section 4.4.

TABLE XXXV. SEMI-VOCALIZATION: FACTORS RELATED TO SPEAKERS' SOCIAL NETWORKS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /l/

Total N: 1857 Input: 0.832			
Network Composition		%	N
Relatives + Neighbors + Friends	0.77	82.3	340
Neighbors + Friends	0.65	77.8	42
Only Relatives	0.61	88.3	233
Relatives + Friends	0.44	66.0	107
Relatives + Neighbors	0.39	81.7	701
Only Neighbors	0.06	38.7	41
	Range: 71		
Mobility			
Yes (only under certain conditions)	0.67	82.6	526
No (would not move)	0.54	78.6	574
Unknown	0.22	74.3	364
	Range: 45		
Network Content			
Multiplex	0.59	80.7	1240
Uniplex	0.44	69.8	224
	Range: 44		
Frequency of Interactions Outside the Community			
Sporadically	0.76	87.7	272
Rarely	0.72	87.2	380
Frequently	0.33	73.1	812
	Range:43		

Stay			
Capital (Santo Domingo)	0.67	87.9	188
Similar Rural Town	0.59	81.3	719
Larger Town (rural or urban)	0.53	80.3	415
Within Community Only	0.17	58.7	142
Range: 42			
Attitude towards Community			
Positive	0.59	82.0	534
Neutral	0.53	78.3	653
Negative	0.27	74.5	277
Range: 32			
Network Structure			
Less Dense	0.64	79.2	410
More Dense	0.44	78.7	1054
Range: 20			
Networks' Membership			
Inside/Outside	0.55	81.4	661
Mostly Outside	0.55	72.8	319
Only Inside	0.39	79.7	484
Range: 16			
Log likelihood = -740.356			
Significance = 0.011			

In conclusion, the results in Table 36 display both the significant factor groups and the range ranking for variable // . Network composition, mobility, network content, frequency of interactions outside the community, stay, attitude towards the community, network structure and network membership were, in that order, found to be relevant; territorial loyalty, on the other hand, was not significant.

TABLE XXXVI. SIGNIFICANT FACTOR GROUPS RELATED TO SPEAKERS' SOCIAL NETWORKS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /l/ AND RANGE RANKING

Significant Factor Groups	
Factor Group	Range Ranking
Network Composition	71
Mobility	45
Network Content	44
Frequency of Interactions outside the Community	43
Stay	42
Attitude towards the Community	32
Network Structure	20
Network Membership	16
No Significant Factor Group	
Factor Group	
Territorial Loyalty	

4.4.2.2 **Results Multivariate Analysis Factors Related to Social Networks (Variable /r/)**

I present the results for the multivariate analysis of the factors related to the social networks of the speakers for the variable /r/ in Table 37. Table 38 displays the significant factors and factor groups as well as the range ranking for variable /r/.

Like the results for variable /l/ previously shown, the composition of the network was the most relevant factor group from the ones considered here (range: 89). Three different types of composition favored the process, namely, networks integrated by (a) neighbors and friends (0.94), (b) a mix of relatives, neighbors and friends (0.79) and (c) relatives only (0.72). In contrast, speakers whose networks were composed by (a) a combination of relatives and friends (0.39), (b) relatives and neighbors (0.34) or (c) neighbors only (0.05), disfavored semi-vocalization.

Parallel to the results in the previous section, the second and third more significant groups for semi-vocalization for this variable were also mobility (range: 58) and network content (range: 39). Again, speakers who were willing to relocate under certain conditions (0.74) and those who were not (0.53) favored the process whereas those for whom the information was unknown disfavored it (0.16). Regarding the content of the networks, speakers with multiplex networks favored semi-vocalization (0.57) while those with uniplex networks disfavored it (0.18), consistent with the previous findings.

Attitude towards the community was the fourth most important factor group for this variable (range: 35). Similar to the results presented earlier, speakers with a positive (0.61) and neutral (0.52) attitude towards the community favored the process while those with a negative attitude (0.26) disfavored it. The frequency of the interactions speakers develop outside the community appeared as the fifth significant factor group (range: 34) with speakers who rarely (0.69) or sporadically (0.68) had interactions outside of the community favoring semi-vocalization and those who frequently did disfavoring it (0.35).

Network structure was also found to be significant (range: 28). Yet again, contrary to the expectations, speakers with less dense networks favored the process (0.70) while participants with more dense networks disfavored it (0.42). The last two significant factor groups were stay of speakers (range: 25) and networks' membership (range: 13). Whether speakers had stayed outside or not was relevant, with participants who had lived in a similar rural town (0.54) or in Santo Domingo, the country's capital (0.53) favoring semi-vocalization, speakers who had lived in a larger rural or urban town neither favoring nor disfavoring it (0.51) and those who had never lived outside of the community disfavoring the process (0.29). Finally, the membership of the networks was also revealed as significant with speakers whose networks were composed by people from

both within and outside the community (0.56) favoring the process and those whose members were either from mostly outside (0.46) or only inside (0.43) disfavoring semi-vocalization.

TABLE XXXVII. SEMI-VOCALIZATION: FACTORS RELATED TO SPEAKERS' SOCIAL NETWORKS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /r/

Total N: 1862 Input: 0.832			
		%	N
Network Composition			
Neighbors + Friends	0.94	98.1	53
Relatives + Neighbors + Friends	0.79	82.2	323
Only Relatives	0.72	88.6	240
Relatives + Friends	0.39	65.8	106
Relatives + Neighbors	0.34	80.3	703
Only Neighbors	0.05	39.3	42
Range: 89			
Mobility			
Yes (under certain conditions only)	0.74	84.8	537
No (would not move)	0.53	78.4	584
Unknown	0.16	71.5	346
Range: 58			
Network Content			
Multiplex	0.57	79.7	1235
Uniplex	0.18	74.4	232
Range: 39			
Attitude towards Community			
Positive	0.61	84.3	568
Neutral	0.52	75.8	618
Negative	0.26	75.3	281
Range: 35			
Frequency of Interactions Outside the Community			
Rarely	0.69	85.2	391
Sporadically	0.68	86.2	269
Frequently	0.35	74.0	807
Range: 34			
Network Structure			
Less Dense	0.70	79.2	395
More Dense	0.42	78.7	1072
Range: 28			

Stay				
Similar Rural Town	0.54	81.7	704	
Capital (Santo Domingo)	0.53	88.0	191	
Larger Town (rural or urban)	0.51	78.9	420	
Within Community Only	0.29	60.6	152	
	Range: 25			
Networks' Membership				
Inside/Outside	0.56	82.6	672	
Mostly Outside	0.46	70.7	299	
Only Inside	0.43	79.4	496	
	Range: 13			
Log likelihood = -738.858				
Significance = 0.025				

Lastly, Table 38 below shows that network composition, mobility, network content, attitude towards the community, frequency of interactions outside the community, network structure, stay and network's membership were significant factor groups in that order and that in contrast, territorial loyalty was not significant.

TABLE XXXVIII. SIGNIFICANT FACTOR GROUPS RELATED TO SPEAKERS' SOCIAL NETWORKS CONTRIBUTING TO SEMI-VOCALIZATION FOR VARIABLE /ɾ/ AND RANGE RANKING

Significant Factor Groups	
Factor Group	Range Ranking
Network Composition	89
Mobility	58
Network Content	39
Attitude towards the Community	35
Frequency of Interactions outside the Community	34
Network Structure	28
Stay	25
Networks' Membership	13
No Significant Factor Group	
Factor Groups	
Territorial Loyalty	

I have presented above the results of the data distributions of the intra- and extra-linguistic factors as well as the factors related to the speakers' social networks for variables /l/ and /ɾ/. Likewise, I have included the statistically significant results taking into account all three types of factors which have an effect on speakers' linguistic choices regarding semi-vocalization. Given the variability in the correlation between some extra-linguistic factors and the semi-vocalization process, intra-linguistic factors seemed to be able to explain more consistently the patterns of language use identified in the data. It was suggested that in order to better explain the aforementioned variability and offer new insights into speakers' linguistic behavior, speakers' individual characteristics and their interpersonal relationships with other members of their networks should be analyzed. This analysis revealed that although there are factors related to the speakers' networks (e.g., content, composition, membership) that have a significant impact on semi-vocalization, a definite correlation could not be established between the most relevant factor (e.g., network composition) and the semi-vocalization process. Further research about this is needed (see below).

Next, in section 4.4 I offer a discussion of the findings in terms of the hypotheses postulated above in section 3.1 and which will be in turn repeated below for ease of discussion.

4.5. **Discussion**

In this section I discuss the findings displayed previously considering the postulated hypotheses. I discuss each hypothesis individually and whether the results constitute evidence that supports them or not.

Hypothesis 1: Semi-vocalization applies to syllable final liquids regardless of their prosodic structure (e.g., whether the liquid is in a prosodic or a function word).

The first hypothesis examines the context of application of semi-vocalization in these specific datasets. Given Núñez-Cedeño and Acosta's (2011) findings, Hypothesis 1 stated that semi-vocalization applies syllable final independently of the prosodic structure of the word that contains the segment under analysis. If this is the case, grammatical category (e.g., prosodic word, function word) should not appear as a significant factor group in the study.

The results partially support Hypothesis 1. Grammatical category was not a significant factor group for the variable /l/; however, it was significant for the variable /ɾ/. The findings clearly indicate that there are differences in the semi-vocalization processes of both variables and thus, this is evidence that suggests that these variables must be analyzed separately (as has been done here and in previous socio-linguistics studies about semi-vocalization; see, for instance, Alba (1990)). I must point out that even though the results only partially support Hypothesis 1 they are consistent with the findings of Núñez-Cedeño and Acosta (2011) whose results relied heavily on data analysis of the variable /l/. Even though they also found evidence of rhotic semi-vocalization in the contexts they were examining, the amount of data may have not been sufficient for an adequate variationist investigation and in fact they suggested variationist studies should be conducted in order to account for semi-vocalization. The aforementioned differences in the behavior of the linguistic variables regarding semi-vocalization are also consistent with the findings displayed in Alba (1988, 1990) and Rojas (1981). Such differences, I propose, should be the topic of further examination in the future using data from the communities that have been studied in this dissertation.

Hypothesis 2: All speakers vocalize on a variable basis (i.e., they do not vocalize all the time) and the frequency of their semi-vocalization is as systematic as proposed by Henríquez Ureña (1975) and Jiménez Sabater (1975).

Hypothesis 2 explores the issue of the frequency of semi-vocalization among the speakers of the examined datasets and the systematicity of the process. It states that all speakers vocalize variably and that the frequency of the process is frequent and systematic as previously suggested by Henríquez Ureña (1975) and Jiménez Sabater (1975). If that is the case, then we should find that all speakers semi-vocalize but that they also produce other variants; additionally, we should expect their rates of semi-vocalization to be greater than their rates of production of the other variants.

The results support Hypothesis 2 since they denote that all speakers vocalize on a variable basis, that is, each one of the participants of the study vocalize but they also produce the other variants considered here [l, ɾ, Ø] variably. It was shown that the average of semi-vocalization was 78.8% and 78.9% for /l/ and /ɾ/, respectively, indicating the existence of a systematic and frequent pattern of semi-vocalization among these speakers.

Since only around eight percent (8.6%) of all speakers vocalized less than they produced the lateral or rhotic variants and that none of the speakers elided more than they produced either the vocalized or the liquid variants, I argue that for these speakers semi-vocalization is as frequent and systematic as proposed by Henríquez Ureña (1975) and Jiménez Sabater (1975) in their respective studies. Such systematicity differs from Alba (1984) and Rojas (1981) both of which discovered only around thirty percent of semi-vocalization among the speakers in their studies with a higher rate of liquid production. Nonetheless, this semi-vocalization pattern is also consistent with Coupal et al.,’s (1988) findings, which identified a prevalence of the semi-vocalized variants over the others in a large coastal area they studied in the Cibao region. Speakers in that area had a semi-vocalization rate of around 70% for /ɾ/ (although a lower 54% for /l/). See Coupal et al., (1988) for a detailed description of their findings.

Hypothesis 3: There are particular social meanings associated with the use of the variants, that is, there is a correlation between semi-vocalization and extra-linguistic variables such as level of education, income, age, and speech style as indicated below.

Hypothesis 3 looks at whether particular variants have social meanings attached to them and whether their use may be associated with speakers with certain characteristics regarding age, level of education, income, and speech style. It was noted that there are social meanings associated with the use of the different variants (see the specific formulation of this in 3A through 3E below). A correlation was found between semi-vocalization and extra-linguistic factors such as education and speech style and at least a partial correlation between factors such as age and income and semi-vocalization.

Hypothesis 3A: Speakers with a higher level of education use fewer vocalized forms than those with lower levels of education.

The results of the analysis of the data distribution (see table 20 in section 4.1.2 above) considering speakers' level of education support Hypothesis 3A. They revealed that for both variables speakers with higher or graduate level of education produced significantly fewer vocalized variants (64.2% for /l/ and 65.4% for /ɾ/) than speakers with secondary³⁴ (64.5% for /l/ and 71.6% for /ɾ/) or primary or no (83.3% for /l/ and 82% for /ɾ/) education. Even though this hypothesis sought to examine the frequency of production of semi-vocalization among these speakers and thus, the results from the data distribution may be enough to support the hypothesis, the results of the multivariate analysis exposed that level of education was not a significant factor group for the variable /l/, however, it was significant for variable /ɾ/ with speakers with only secondary education favoring semi-vocalization and those with higher or graduate education

³⁴ Notice that for variable /l/ speakers with higher levels of education semi-vocalized only slightly less than those with secondary education. Level of education did not appear as a statistically significant factor group for variable /l/.

disfavoring the process. Interestingly, speakers with primary or no education neither favored nor disfavored semi-vocalization; however, as expected, they used more semi-vocalized forms than those speakers with higher levels of education.

This seems to suggest that education may be employed as a social factor that can explain not only what type of speakers favor the production of semi-vocalization but more broadly, some of the systematic patterns of language variation among speakers from these communities.

Both the results of the data distribution analysis as well as those from the multivariate analysis for /ɾ/ evidently demonstrate that there is an educational meaning associated with the use of the semi-vocalized forms with fewer amounts of semi-vocalized variants found in the speech of speakers with the highest level of education. This is consistent with the profile speakers from these communities describe when asked about the people who vocalize. One of the last questions of the interview was “Quien habla con la *i* por aquí?” ‘Who speaks with the *i* (vocalizes) around here?’; when asked many speakers replied “ya nadie habla con la *i*, eso sólo lo hace la gente bruta, que no ha ido a la escuela o la gente vieja pero los jóvenes ya no hablan con la *i*” ‘nobody speaks with the *i* anymore, only uneducated people, those who have not attended school or the elderly but young people don’t speak with the *i*.’ It is evident, then, that in these communities semi-vocalization is associated with uneducated speakers or people with lower levels of education, indicating a clear lack of prestige, as well as with older speakers (see below). This association contradicts, however, the high rates of semi-vocalization found among the same speakers who reported that nobody vocalizes.

An exhaustive analysis of the complex issue of the lack of prestige associated with the use of the semi-vocalized variants is beyond the scope of the present study; consequently, it will not be pursued in detail here (see Alba (1988, 1990) and references therein for a discussion about

this). However, it must be pointed out that the semi-vocalization process in the Cibao region has been considered to be a case of covert prestige. Pérez Guerra (1991) claimed that semi-vocalization is used, on one hand, as a linguistic mark that symbolizes solidarity with the Cibaeño community; hence, speakers use it in order to show their belonging to the local group within the larger national context. On the other hand, she proposes that it is used as index of *important values* such as energy, strength and masculinity, in her own words “...si se quiere, el ‘machismo’” ‘in other words, chauvinism’ (1991:1189). She argues that semi-vocalization is used by male speakers from the upper socio-economic class in situations usually linked to manliness such as alcohol drinking, sweet talking women and fighting. She reports that in these contexts (or even when they recall such situations) these upper class speakers consistently use semi-vocalized forms. Although the full logic of the argument is not entirely clear, I interpret her argument as stating that the use of semi-vocalized forms in situations associated with the aforementioned *important values* provides them with certain type of covert prestige. An examination of the data presented here did not yield any relevant results regarding this topic; however, a closer look at the data is needed.

I agree with her explanation only partially. I believe her argument falls short in explaining, among other things, the high rates of semi-vocalized forms found in the women’s speech. While it is true that speakers from upper socio-economic groups may use less semi-vocalized variants than those in lower levels, as she points out, they are still part of the Cibaeño community and the situations she mentions are especially suitable to use an informal speech style in which undoubtedly vernacular forms like semi-vocalization are more likely to be found. Nonetheless, I consider that, as she suggests, semi-vocalization is indeed used as a mark of (linguistic) solidarity (see also Fuller (2007) for a similar notion). Lastly, as I mentioned, whether semi-vocalization is

a case of covert prestige or not is, in itself, beyond the scope of this study, therefore, I suggest that more research needs to be done about this in the future.

Hypothesis 3B: Speakers with a higher income use fewer semi-vocalized forms than those with lower incomes.

Hypothesis 3B examines the correlation between the semi-vocalization process and speakers' income. The results do not support hypothesis 3B considering that (a) speakers from the upper income group produced more semi-vocalized variants than those in the lowest income group and, (b) there is not a clear pattern of semi-vocalization among the different groups of speakers considering their income for any of the two variables.

The results of the analysis of the data distribution reveal that speakers in the upper income group semi-vocalized more frequently than any other group for variable /l/ followed by the low-medium, medium, lowest and medium upper. Meanwhile, for variable /ɾ/ the only difference in ranking is the switch of the first two categories, speakers in the low-medium income groups semi-vocalizing more frequently than those in the upper group. The other three groups had the same order than for the previous variable, namely, medium, lowest and medium-upper income groups. As for the results of the multivariate analysis, they show that income was a significant factor group for both variables with low-medium, medium and upper income speakers favoring semi-vocalization for variable /l/ and low-medium and medium income speakers favoring it for /ɾ/; for their part, lowest and medium-upper income speakers disfavored semi-vocalization for /l/ whereas lowest, upper and medium-upper did the corresponding for /ɾ/.

This perplexing pattern seems to suggest that income as a factor group can not be used, just by itself, to clearly explain the linguistic behavior of these speakers as semi-vocalization is concerned and that it is necessary to appeal to other factors. A promising explanation may be

advanced, however, if we consider that income can be interacting as a factor group with other groups such as age and level of education. Revisiting the results with this in mind could result, then, in a more fruitful enterprise. For instance, if we take into consideration that the speakers in the upper income group belong to the oldest age group and that this was precisely the group with the highest rate of semi-vocalization (see below), the results are not so surprising. Likewise, since the members of the medium-upper income group are the speakers with the highest level of education (which, in turn, is the group with the lowest rate of semi-vocalization) it is not unexpected that they semi-vocalized the least.

It is still not completely clear, however, what may cause that speakers belonging in the lowest income group vocalize less than those in the medium, low-medium and upper income groups. A closer look at the members of the group reveals, nonetheless, that the majority of these speakers develop their interactions mostly outside the community and as shown above, that factor has an effect on semi-vocalization, reducing its rate of production. Hence, the interface of income with frequency of interaction outside the community can help to illustrate what can be seen as conflicting results.

Moreover, an additional explanation can be advanced considering that normative attitudes may be inferred differently depending on the speaker (Hogg and Reid (2006)). In the data there is evidence which suggest that there are cases of *pluralistic ignorance* in this community. Pluralistic ignorance (e.g., Prentice and Miller (1996)) occurs when people privately reject an in-group norm (semi-vocalization in this case) but believe mistakenly that the many others in the group accept the norm. In the case of this particular study, many of the participants indicated that they do not use semi-vocalized forms (although in their replies they were employing semi-vocalized variants themselves which translated into high rates of semi-vocalized forms in the data) but that other

people do use them, especially those with lower levels of education and older speakers. It is important to point out that in these communities the majority of the population (i.e., 70%) belongs to the two oldest age groups considered here (51 years and older) and have only a primary level of education. From this percentage of speakers in the oldest age groups, only 5.6% had a secondary level of education, the remaining had only a primary level.

In addition, questions directly addressed to gather information about the semi-vocalization process during the interviews revealed that, not surprisingly as this is part of their linguistic repertoire, most of the time speakers are not aware of their own semi-vocalization processes since, as it was observed above, they deny that they vocalize. When they become aware of it, however, they attribute it to their enforcement of a local linguistic norm (i.e. the use of semi-vocalization in the Cibao region) (see below). Finally, the medium (for both variables) and low-medium income group for variable /l/ were ranked as expected. I must point out, however, that it is not clear the reason why the latter group was ranked the highest for the variable /ɾ/. Further analysis about this is needed.

Hypothesis 3C: Younger speakers vocalize less than older speakers.

Hypothesis 3C examined whether age had any specific effect on semi-vocalization. Speakers were placed into one of four different categories: older than 61 years, 51-60, 41-50 and 18-40. The results, consistent with Alba (1988), support hypothesis 3C since they indicate that younger speakers semi-vocalized less than older speakers with speakers between 18-40 years producing less semi-vocalized variants than speakers older than 61 years of age. It is important to reiterate that the youngest speakers were the only group that produced more liquid variants than semi-vocalized ones. Results indicated that there was not an ordered scale of production of semi-

vocalization among all four age groups; the results revealed that speakers from the second age group (41-50) had a higher rate of semi-vocalization than those in the third age group (51-60).

Although there seems not to be a clear pattern that allows me to provide an explanation as to why this may be the case, the ranking indicates, again, that there is some sort of interaction between age and other factors analyzed here. A closer look at both groups reveals that all speakers in the third age group (51-60) have only primary education and semi-vocalized more than speakers in the second age (41-50) group which contains speakers with the three educational levels (who are expected to vocalize less due to their higher levels of education). Thus, in this specific case, age by itself can not be employed to explain this discrepancy in the patterns of language use of the speakers in the mid-age groups.

The examination of other variables such as type of interactions inside/outside the community, the professions/occupations they perform, among others, did not reveal any significant differences between both groups with the exception of speakers' stay, specifically, the place where they had lived. Speakers from the third age group (51-60) have only lived either inside the community or in a similar rural community whereas those in the second age group (41-50) have a wider range of places where they have lived (e.g., the capital of the country, a larger town and a similar rural community). None of the members of this group have stayed all the time within the community.

Given this, it could be argued, along the lines of Pérez Guerra (1991), that semi-vocalization is used as a marker of community loyalty and integration into the local group. Following Fuller (2007), it can also be claimed that these speakers use semi-vocalization as linguistic means of constructing or shaping their identities as part of their specific communities. In other words, speakers employ semi-vocalization as a component of their social identity as

members of the Cibaeño community, and specifically of the communities under study here, where semi-vocalization is a salient feature. This is shown in the the data where many speakers reported that they vocalize because “*así es como hablamos aquí en el Cibao*” ‘that’s how we speak around here in the Cibao region’ evidencing an indentificacion with a particular linguistic community.

Likewise, in line with Bailey (2001) it could be claimed that these speakers adopt different positions (and identities) which may have different salient features and may even be enacted simultaneously and in constant interaction with the *external* world. I suggest, nonetheless, this topic be investigated further analyzing larger datasets consisting of larger amounts of speakers in each group in order to determine whether a clear and ordered ranking among the four age groups can be established and the specific social meanings of semi-vocalization for each group.

In sum, even though there is still work that needs to be done regarding the mid-age group speakers, it is clear that older speakers (all three groups) vocalize more than younger speakers. Consequently, this correlation between age and semi-vocalization suggests that age can also be used as a tool to explain linguistic variation among these speakers.

Hypothesis 3D: Female speakers use fewer semi-vocalized forms than male speakers.

Hypothesis 3D explores an issue of language and gender as it relates to semi-vocalization, that is, whether male or female speakers use more semi-vocalized forms. The hypothesis presupposes that female speakers will have a lower rate of semi-vocalization as compared to their male counterparts. The results of the data distribution are consistent with Marrero et al.,’s (1981) findings and support hypothesis 3D. They denote that for both variables female speakers produced fewer semi-vocalized variants than male speakers. Thus, it is not surprising that of the speakers who produced more liquid variants than semi-vocalized ones, all were female.

However, it is important to point out that gender did not appear as significant in the multivariate analysis for any of the variables. The results of the data distribution, therefore, only suggest a trend for gender but the lack of statistical significance suggests that the social value of gender attached to semi-vocalization is, in fact, weak. This is not surprising if we consider that this lack of effect may be connected with the other perplexing and unclear social patterns identified in the data (see results for income and mid-age groups) and also if we considering the lack of stylistic effect (see below) found in the data. See Trudgill (1979) for a discussion of linguistic markers and indicators linked to lack of stylistic effects resulting from weak social effects.

Finally, whether the behavior of these speakers as regards semi-vocalization suggests a linguistic change in progress or not will not be pursued here but I suggest this topic to be explored in the future (see below).

Hypothesis 3E: All speakers vocalize less in formal speech than in casual speech.

Hypothesis 3E examines the semi-vocalization process taking into account the speech style. The results support hypothesis 3E since semi-vocalization was less frequently found in formal speech than in informal speech. The results from the multivariate analysis indicate that this was not a significant factor group for the variable /l/ but it was significant for /ɹ/. An analysis of the factor weights reveals that formal speech disfavors the semi-vocalization process; nonetheless, informal speech neither favors it nor disfavors it. This suggests that speech style is not very informative as a factor group in an analysis of linguistic variation for these specific datasets, therefore, unless stronger patterns of variations could be identified using this parameter, it should be probably not be considered as crucial for the analysis.

Hypothesis 4: An individual's language variation can be explained in terms of the structure and content of his or her personal network.

It was noted earlier that in the datasets analyzed here there were certain extra-linguistic factors for which there was not clear a correlation with the semi-vocalization process. I argued that this may be linked to individual differences in the speakers' linguistic behavior. Hypothesis 4 examined whether speakers' language choices could be explained in terms of the structure and content of their personal networks and their interpersonal relations with other speakers. The results only partially support Hypothesis 4 since individual variation among these speakers can be explicated in terms of the content of the network but not in terms of its structure (see below).

Hypothesis 4A: Individuals with more dense networks are more likely to vocalize than those with less dense networks.

Hypothesis 4A examines whether the density of speakers' networks may be able to explain their language choices, especially concerning semi-vocalization. Given Milroy (1980, 1992) and Bott's (1971) findings, it states that speakers engaged in networks with a higher density are more likely to vocalize than those in networks with lower density. The results (including the data distribution and the multivariate analysis for both variables) do not support Hypothesis 4A; in fact, they reveal that speakers in networks with lower density are more likely to vocalize than those in more dense networks. This may have something to do with the type of communities under study here whose characteristics differ significantly from the communities in Milroy and Bott's studies. The communities studied in Milroy (1980, 1992) were urban, working class and industrial as opposed to rural, low class and (principally) agricultural locations examined here. An examination of other factors related to the speakers' networks, such as their composition and

membership, may offer some insights into these speakers' language choices regarding semi-vocalization.

A consideration of the results for the network composition reflects that it was the factor group with the highest range values for both variables in the multivariate analysis, with indicates that it was the group with the most relevant contribution to the semi-vocalization process. Nonetheless, it is important to draw attention to the fact that I have not been able to outline a clear pattern, at least as a result of the analysis of these datasets, as regards the composition of the networks related to semi-vocalization. Apparently, speakers are more likely to vocalize if their networks are constituted by either (a) a mix of relatives, neighbors and friends; (b) a combination of neighbors and friends; or (c) only relatives. On the contrary, speakers with networks composed of (a) relatives and friends; (b) relatives and neighbors or (c) only neighbors disfavor semi-vocalization. Given this perplexing results, future research should be conducted in order to shed light on the specifics of the correlation between network' compositions, examining, for instance, if there is a ranking relative to the type of relationships (e.g., relative, neighbors, friends) speakers in these networks have.

In regards to network membership, although it was the least significant factor group of all the analyzed, it still appeared as statistically relevant with speakers whose networks were composed by people from both inside and outside and mostly from outside favoring the semi-vocalization process and those whose network members were only from within the community disfavoring it. This is a very interesting pattern that may help to provide an explanation of these speakers' individual variation and the linguistic choices they make. One option to explain such a pattern is, again, to consider that semi-vocalization is used as a linguistic means of creating specific social identities, hence, the fact that speakers whose networks are composed by people

(speakers) mostly from outside (or a combination of inside/outside) are more likely to vocalize than those with networks integrated by people from within the community only, may point towards an identification of that speaker with her local group.

An alternative option, however, is obtained from looking more deeply at the data and may explain this pattern more straightforwardly; if we consider that speakers from *outside* are mainly from the surrounding rural communities where Cibaeño Spanish is also the dialect in use and therefore, semi-vocalization is also part of the linguistic repertoire of these speakers, the results are not surprising at all but rather expected. Future directions of this research should include an analysis of the relationships between speakers from these communities and those in their surrounding rural locations (see below).

Hypothesis 4B: Individuals in multiplex networks are more likely to vocalize than individuals in uniplex networks.

Hypothesis 4B looks at the content of the network and whether the participants in this study are linked to people in their networks in one or more capacities. As revealed by the multivariate analysis, the results support Hypothesis 4B since they demonstrate that individuals in multiplex networks are more likely to vocalize than those in uniplex networks for both variables. When an individual is linked to others in many different capacities, it seems that there is more pressure on that speaker to adopt the linguistic norms that are indigenous to the community, in other words, there is more pressure to be active part of the local team and adopt its linguistic practices.

Hypothesis 4C: Individuals with close-knit (strong) ties within the local communities are more likely to vocalize than individuals with loose-knit (weak) ties to the local groups.

The results support Hypothesis 4C with speakers with strong ties or high degrees of territorial loyalty semi-vocalizing more than those with a weak tie or low degree of territorial loyalty. Even though this factor did not appear as significant in the multivariate analysis, the results from the data distribution suggest that semi-vocalization seems to be used as a network marker for speakers with different degrees of integration into the local group and thus, territorial loyalty or degree of belonging can help explain speakers' individual (and, in turn, social) linguistic variation. As was observed earlier, these results are consistent with previous findings of studies that have successfully used social network theory to explain individual linguistic variation.

Finally, in this section I have offered a discussion of the results in terms of the postulated hypotheses. As it was noted, not all hypotheses were supported by the results and thus, I have suggested that other factors should be taken into account. An examination of two additional factors related to the speakers' networks indicated that further analysis is needed using both the datasets under study here as well as new ones that can be gathered in the future. The discussion have also revealed that a comprehensive account of semi-vocalization can benefit from an interdisciplinary approach like the one used here since it can offer insights into all aspects of the process, some of which may stay unveiled using only single-perspective approaches. Likewise, explanatory power can be increased by linking both the individual and the social levels of analysis within the same approach as has been done here.

V. CONCLUSIONS AND FURTHER RESEARCH

5.1. Conclusions

This study has looked at the patterns of linguistic variation in the vernacular speech of thirty six speakers of Cibaeno Spanish, a subdialect spoken in the northern central region of the Dominican Republic. It has focused on the observation, description, and analysis of the phonological process known as semi-vocalization by which a liquid segment becomes a palatal glide [j] in coda position. Using a variationist, interdisciplinary approach, the analysis has examined the linguistic variables /l, ɾ/ and their several variants [l, ɾ, j, Ø].

The results have revealed that for the speakers under analysis here, semi-vocalization is systematic and frequent. Hence, I have argued that, for them, the process is as systematic as suggested by Henríquez Ureña (1975) and Jiménez Sabater (1975), differing from Alba (1988 1990) and Rojas (1981)'s findings but in line with Coupal et al.,'s (1988) results.

Based upon previous findings in phonology and sociolinguistics (e.g., Henríquez Ureña (1975), Jiménez Sabater (1975), Núñez Cedeño and Acosta (2011), Alba (1988, 1990), Rojas (1981, 1988), Marrero et al., (1981)), the study has identified a series of intra and extra-linguistic factors that have an effect on semi-vocalization and more broadly on the variation patterns of language use among these speakers. It has been shown that there are, on one hand, factors internal to the language such as (a) type of following segment, (b) preceding vowel, (c) stress of the syllable carrier of the segment and (d) syllabic position for variable /l/ and, on the other hand, (a) grammatical category, (b) type of following segment, (c) type of prosodic word and (d) syllabic position for /ɾ/, which have a statistically significant impact on the semi-vocalization process. Grammatical category was expected not to have an effect on semi-vocalization and it was not

significant for variable /l/, however, it was for variable /r/ and thus, this points towards a differentiation in the semi-vocalization processes of both variables.

Moreover, extra-linguistic factors such as (a) age and (b) income for variable /l/ and (a) age, (b) income, (c) level of education and (d) speech style for /r/ also appeared to be statistically significant in the analysis. Again, taking into account the dissimilar behavior of the analyzed variables, the processes of semi-vocalization seem to be different for each variable and thus, examining them separately may be a particularly fruitful approach. It was discovered that there are social values associated with the use of the different variants with older, male, lower-level education speakers more likely to vocalize than younger, female, higher-level education speakers. Semi-vocalization was found more frequently in these speakers' informal speech as compared to their formal speech style.

Clear correlations were found between intra-linguistic factors and semi-vocalization, however, for some of the extra-linguistic factors such as income the relationship was not that straightforward. Additionally, the patterns of language use among speakers in the mid-age groups was not completely transparent. I suggested then, that these pattern discrepancies may have been obtained as a result of individual differences and thus, it would be helpful to employ an additional and different perspective to account for the problem. Examining new factors simultaneously with the ones mentioned above may reveal interactions present in the data. I proposed the use of Social Network Theory as a new approach since it has proven profitable in the prediction and explanation of individual's linguistic behavior. Including such an approach also has the merit of linking two levels of analyses, the individual and the social, increasing this study's explanatory power.

The use of the variants were associated with particular social meanings, therefore, it was assumed that this vernacular variety (Cibaeño Spanish) has important social functions. However, the use of the variants may also be linked to certain degrees of association between the participants and the community that surrounds them. An analysis of the data allowed me to establish the structure and content of the speakers' networks as well as the type of ties they had with the local communities; it also allowed me to look at how the interpersonal relationships between the participants and the members of their networks affect the patterns of language use, specially, as it is related to semi-vocalization.

Considering previous findings of studies developed within the framework of Social Network Theory, I started by presuming that in these rural areas the structure of the networks would (at least tend to) be more dense, that is, speakers linked to the participant would also be linked to each other; likewise, the content of the network would be multiplex, namely, the participants would be linked to others in her network in more than one capacity. In addition, I assumed that these participants, especially if they had strong ties with their local group, would have higher rates of semi-vocalization considering that speakers engaged in these types of networks have usually higher rates of vernacular forms.

Indeed, networks were mainly dense and multiplex in these rural communities. In regards to the content of the networks, as expected, speakers in multiplex networks semi-vocalized more than in uniplex. However, the results exposed that speakers with more dense networks used fewer semi-vocalized forms as compare to those in less dense networks. I proposed that since network structure did not prove to be a factor that could effectively account for the variation patterns of language used identified in the data for these speakers, other factors should be analyzed. For instance, I suggested that the composition of the network would be a more fruitful aspect and

potentially would shed more light on the issue. An examination of the type of people that composed the networks, nonetheless, did not permit me to establish any clear pattern of language use; it only allowed me to indicate that a higher rate of semi-vocalization was found among speakers whose networks were composed mainly for (a) a combination of relatives, friends and neighbors, (b) friends and neighbors and (c) only relatives. When their networks were constituted by (a) relatives and friends, (b) relatives and neighbors and (c) only neighbors their use of semi-vocalized variants was lower. Further investigation about this was suggested in order to know the specifics of the type of relationships between the speakers and the members of their networks.

An additional factor considered in the analysis was network's membership, that is, whether the members of the network were from inside or outside the community. It was exposed that participants whose networks were constituted by people from mostly outside and from both inside and outside were more likely to vocalize. I proposed this may be due to one of two reasons: a) semi-vocalization is used as a linguistic means of creating a social identity (as part of the local group), allowing the participants to depict specific aspects of such identity, especially regarding the linguistic repertoire of the community or b) speakers used more semi-vocalization with speakers from *outside* because the outsiders are also active speakers of Cibaeno Spanish and thus, vocalize as well. Moreover, an analysis that combines speakers' attitudes towards their own speech as well as their relations with speakers from surrounding locations may provide a clearer picture.

Lastly, an examination of the type of ties the speakers had with their communities was also included. Six indicators were used to measure speakers' networks including structure and content (see above); the strength of the ties speakers had with their local groups was determined by also measuring their (a) attitude towards the community and the outside, (b) frequency of

interactions outside the community, (c) attitude towards mobility from the community and (d) whether they had stayed inside or outside the location. As expected, it was shown that speakers with stronger ties (degrees of territorial loyalty or belonging to the local group) were more likely to vocalize than those with weak ties.

As shown above, an explanation of speakers' language choices and their individual variation patterns can benefit from the simultaneous consideration of several factors (intra, extra-linguistic and network related), some of which may not explain on their own the patterns attested to in the data. I argue, therefore, for the use of an interdisciplinary approach as the optimal approach to provide a comprehensive account of semi-vocalization and linguistic variation. It was demonstrated that combining the individual and social levels of analysis can be more productive and can provide more powerful explanations than considering only single-level analyses.

Finally, the findings of this study have the potential to contribute to various areas of research such as Sociolinguistics and Social Network Theory. Regardless of the fact that not all the hypotheses were supported, the layout of the study provided an assessment of several crucial aspects of linguistic variation. For instance, it evaluated and delimited some of the extra-linguistic factors that affect the patterns of language use in the vernacular variety of the speakers from the communities under study. Therefore, it comes to expand the increasing body of research on language in its social context. Likewise, by providing a measure of speakers' networks as well as their interpersonal relationships and their effect on both semi-vocalization and patterns of linguistic variation, the study contributes to the better understanding of how people interact at the individual level in a socially meaningful way and in this specific case, how they use their vernacular varieties to portray diverse social identities. More importantly, it shows how their

individual linkages with other members of their communities can predict their (socially meaningful) linguistic behaviors.

Further, since this study focuses on a vernacular (non-standard) variety of Spanish it contributes to inquires in the field of dialectology in both the Caribbean and in the Dominican Republic. In addition, the results have theoretical implications for studies of phonological variation and specifically, for accounts of Cibaeno semi-vocalization. By having determined the intra-linguistic factors that significantly affect the occurrence of semi-vocalization in the communities under study, this dissertation partially addressed the suggestions made by Golibart (1976) and Núñez-Cedeño and Acosta (2011) of conducting empirical studies focusing on the environments in which semi-vocalization occurs in order to determine which types of factors (e.g., intra-linguistic, extra-linguistic or other) trigger or hinder the application of semi-vocalization. Finally, this study also addresses a call in the literature to conduct analyses involving data from non-urban settings using vernacular varieties and informal speech styles.

5.2. **Further Research**

In order to increase our understanding of the patterns of language use among the speakers of the communities under study, especially regarding the semi-vocalization process, I propose that several topics be investigated in the future. For instance, I have suggested (see above) that a more in-depth investigation should be conducted about the specific differences in the behavior of the linguistic variables /l/ and /ɾ/ as it relates to semi-vocalization. This can help illustrate not only if there are additional (to the ones examined here) factors at play in the semi-vocalization process of each variable but also what makes them sensitive to different elements. Likewise, an analysis of the interface between the extra-linguistic factors and network factors presented here may offer some insights into the particularities of the speakers who vocalize.

In addition, it is important to investigate further the exact relationship between the composition of the networks and semi-vocalization. To be exact, defining what makes the composition of these networks notable and the reasons why they have that effect on semi-vocalization. To achieve this, a finer classification of the categories established above may be necessary jointly with a deeper understanding of how such categories work in their local context.

It was shown earlier that there are still some answers needed to clarify the linguistic behavior of certain speakers, specifically, those in the mid-age groups. I propose that another study be undertaken which analyze data with a larger and more representative dataset including speakers of these ages. This will help illustrate further their linguistic behavior but more importantly, will expound upon what now seems to be a discrepancy in their language choices. A comparison between the two mid-age groups considered will be important but also to gather data that include speakers younger (under 18) than the ones analyzed in this study.

In the future, the relationship between income and semi-vocalization should also be revisited. As it was observed earlier, there is still not a clear correlation between this factor group and the process analyzed here. A more comprehensive account of this requires, on one hand, an examination of a more representative sample of speakers with different income levels and on the other hand, a simultaneous exploration of income and some of the other factor groups considered.

Another topic I suggest to be considered in the future is an analysis of semi-vocalization as evidence (or not) of a linguistic change in progress or the existence of a generational shift. Determining whether there is a change in progress may require an examination of data including younger speakers (than those examined here) as well as a larger representation of both male and female participants. Furthermore, I recommend analyzing in the future the patterns of language

use of speakers from other rural and urban locations in the Cibao region and compared them with the speech of those studied here. Such comparison can shed light on the effect the locations' characteristics may have on speakers' linguistic choices, particularly as regards semi-vocalization.

Both the lack of prestige associated with the use of semi-vocalized variants and the aforementioned covert prestige linked to the process are two topics of great interest to examine further in the future. Such examination may offer insights into the speakers' individual linguistic variation and their language choices. By looking at the patterns of language use using larger datasets that include speakers from a wider representation of the communities in terms of age, income, level of education and considering simultaneously notions such as prestige and status and speakers assessment of their own speech may shed some light over these topics.

There are two last somewhat unrelated but interesting topics that I suggest. First, an analysis of the speech of Cibaeños in other regions of the country, different from the northern central area, which may give us an updated idea of how extended the semi-vocalization process is throughout the country and also about both the validity of the process and its patterns of use among different types of speakers. Second, I recommend an examination of Cibaeño speakers who are second language learners of English in the United States. It would be interesting to look at whether their semi-vocalizing affects their English and also, other weakening process in coda position could be explored determining if they result in different English outcomes from the expected ones (e.g., /s/ elision in coda position).

Finally, I suggest that future accounts of semi-vocalization benefit from the use of interdisciplinary approaches as the one utilized here for the advantages they present and especially, the increased explanatory power they offer by linking different levels of analyses within the same approach. Data collection processes for future studies may also benefit from

semistructured approaches as outlined in Mills (2006), where interviews focused on the respondent's attitudes towards their own linguistic repertoire; this, in turn, may yield insights into speakers' attitudes toward the use of semi-vocalization. Also, data collection with a more ethnographic approach, as suggested by Pérez Guerra (1991) may yield information which can offer better insights into the relationship between speakers's attitude toward their own speech and semi-vocalization.

APPENDICES:

Appendix A³⁵

TABLE XXXIX. APPENDIX A. RESULTS LIQUID NEUTRALIZATION PROCESSES IN THE CIBAO REGION (JIMENEZ SABATER (1975))

Context	Tokens	Main process	Other findings
Before voiced segments	<i>verde</i> (green) <i>algo</i> (something) <i>hervir</i> (to boil)	vocalization [ˈbej ðe], [ˈaj.ɣo], [hejˈ βej]	- a sound between a fricative [ɹ] and an assimilated to the following segment [ˈɹ] - a hybrid segment [ˈɹ] - a neutralized rhotic in [l].
Before voiceless segments	<i>tuerto</i> (one-eyed) <i>puerco</i> (pig) <i>cuerpo</i> (body)	vocalization [ˈtwejto], [ˈpwejkɔ], [ˈkwejpo]	- a semi-geminated [tɹ] - a slightly geminated [ˈtɹ] - a neutralized rhotic in [l].
Before /s/	<i>fuerza</i> (strength) <i>dulce</i> (sweet)	vocalization 66% [ˈfwejsa], [ˈdujse]	- deletion
Before palatal /č/	<i>marchar</i> (to march)		- vocalization - a softer [i] - an assimilated to č [maˈtʃai] -deletion [maˈtʃai]
Before nasals /n/, /m/ /l/ ante /m/	<i>almohada</i> (pillow)	vocalization [ajmoˈa ða]	-a hybrid form between a semivowel and a lateral [ˈi]
/r/ ante /n/	<i>carne</i> (meat/flesh) <i>pierna</i> (leg)		- a voiceless, voiced or nasalized aspirated [ˈkahne] [kâhne] [kaˈne] - an assimilated [ˈkanne] [ˈpjenna] - an aspirated [ˈkahne] [ˈpjehna] - deletion [ˈkane] -vocalization (in just a few cases) [ˈkajne] [ˈpjejna]
/r/ followed by /l/	<i>Carlos</i> (proper name) <i>perla</i> (pearl)		-deletion [ˈkalo] - an aspirated [ˈkahlo] - a slightly geminated [ˈkaˈlo] - vocalization [ˈkajlo]
in word final position	<i>mujer</i> (woman) <i>baul</i> (trunk)	Vocalization [muˈhei] [baˈuj] [ˈhje]	- a neutralization in [l] -a hybrid segment [ɹ] -a fricative [ɹ]
final /r/ in infinitives - with clitic pronoun	<i>aprear</i> (get off) <i>observar</i> (to observe) <i>admirar</i> (to admire)	deletion [aˈpjalo]	- a slightly aspirated [aˈpjahlo] - vocalization [aˈpjaɹlo] - a slightly assimilated to the lateral [osejˈ βaˈlo]
- without clitic pronoun		vocalization [aˈpjaɹ] [osejˈ βaɹ] [ajmiˈraɹ]	- deletion - a nasal [aˈpjan] - a fricative [ɹ] [aˈpjaɹ]

³⁵ Since not all of the symbols used by Jiménez Sabater (1975) correspond to the IPA symbols, some of them are not included in the list of symbols provided above; however, they are described under the column of findings in the table of the Appendices A and B.

Appendix B

TABLE XL. APPENDIX B. RESULTS FOR STOP SEMI-VOCALIZATION AND
DELETION IN THE CIBAO REGION (JIMENEZ SABATER (1975))

Consonantal group	Tokens	Main process	Other findings
<i>Bs</i>	<i>observar</i> (to observe)	Deletion	- vocalization
<i>Bj</i>	<i>absurdo</i> (absurd) <i>objeto</i> (object)	[osej' βaj] [o'he_ɾo]	[ojsej' βaj]
<i>Ps</i>	<i>Concepcion</i> (proper name)	deletion [kose'sjon]	vocalization [kosej'sjon]
<i>Pt</i>	<i>acepto</i> (I accept)	vocalization [a'sej_ɾo]	deletion [a'seto]
<i>Cc</i>	<i>examen</i> (exam)	Deletion	Vocalization
<i>Ct</i>	<i>lección</i> (lesson) <i>perfecto</i> (perfect)	[e'sameɲ], [le'sjon], [pe.ɾ'fe_ɾo]	[ej'sameɲ], [lej'sjon], [pej'fejto]
<i>Gn</i>	<i>ignorante</i> (ignorant)	deletion [ino'ran_ɾe]	
	<i>magnifico</i> (magnificent)	[ma'nifiko]	vocalization [maj'nifiko]
<i>Tm</i>	<i>aritmética</i> (arithmetic)	deletion [ari'me_ɾika]	

Appendix C

Stimuli Corpus I English Version

Participant No. _____ Date: _____ Time: _____

Instructions for the researcher/fieldworker:

The researcher/fieldworker must use the local dialect throughout the interview with the participants and talk in a casual manner so that the participants also use a casual speech style. When informing the participants about the nature of the study s/he should not reveal that it is a study about language (so that participants are not aware of their pronunciations when completing the activities) but rather to let them know that it is about memory and how people remember things. Also, the researcher should mention that the ultimate goal of the study is to write/reconstruct the history of the community and that in order to reconstruct it we are gathering personal stories and memories of the people that were born and currently live there.

Every participant must be informed about the type of study we are conducting (in the way described above) and before beginning the interview they must sign the Consent Form. Once the participants have signed the consent form, the researcher/fieldworker will use the questions below as a guide.

Sociolinguistic interviews: In this part, the information must be gathered as if the researcher were chatting in a very informal way with the participants and not as if interviewing him/her.

PART I. Sociolinguistic Interviews

Script: We are here conducting a study about memory and how people remember things. We are also writing the history of this community as well as the history of some of the neighboring communities. We need your help in reconstructing the history through your own personal story and memories. Let's start...

Demographics

1. In what year were you born? How old are you?
2. Where were you born/In what town? Where was the first place you lived?
3. After that, in what other places have you lived?
4. For how long have you lived here?
5. Have you always live here in the same house?
6. Can you describe your house for me? How is it organized? If I enter your house, what is the first thing I see?
7. Has it always been like that? Can you tell me how it has change?
8. Do you remember the house you grew up in? Can you describe it?

Module: Family

Let's talk about your family:

1. Whom do you live with?
2. Do you have children?
3. How many?
4. Are your children married?
5. Do you have grandchildren?
6. What about your parents? Are they alive?
7. Where were they born?
8. Do your parents work? What do they do?
9. How did they discipline at home?
10. Which of your parents was the strictest?
11. While growing up, did you have a good relationship with your parents? Could you talk about anything with them?
12. What was your father like? And your mother?
13. Did your parents let you hang out with friends?
14. Do you have siblings? How many? What do they do?
15. Do you have nephews and nieces? Are you close to them?
16. How is your relationship with your family? Do you see them often? Are you a close family?
17. Do you have family gatherings? How often?

Module: Marriage

1. Are you married?
2. Where was your spouse born?
3. Did your spouse always live here?
4. For how long have you been married?
5. How is your relationship with your spouse?
6. How is your relationship with your in-laws?
7. What type of people are they?
8. Do you visit them often? Do they visit you often?

Module: Work

1. What do you do now for a living?
2. Do you have a job?
3. Where do you work?
4. For how long have you worked there?
5. What are your specific tasks at work?
6. Do you usually work alone or with other people? With whom/how many? What is it that you do together at work?
7. Do you usually hang out with people from your job?
8. What do you do when you hang out?
9. Do they visit you at home? Do they visit them?
10. Do you remember your first job?

11. For how long did you work there?
12. After that, where did you work?
13. Do you still have contact with your former workmates?
14. Do/Did you like your work?
15. Was/Is that something you always wanted to do?

Module: School

1. Were there schools where you grew up?
2. Was it far from home? How did you get there?
3. Did you attend school?
4. What was the most advanced degree you got?
5. Do you remember your teachers? Who was your favorite teacher? Why?
6. Who was your least favorite teacher? Why?
7. What were some of the games you played at school?
8. What other things did you do at school?
9. Did you like attending school? Why or why not?
10. Could you bring friends home when you were growing up?
11. Do you still have friends from school?

Module: Peers/Friends

1. Do you have many friends?
2. Who is your best friend?
3. When did you meet your best friend?
4. How many of your friends live here?
5. Where do your other friends live?
6. Who are the five people you like to hang out the most?
7. Are you friends with all your neighbors?
8. From your neighbors, who is your best friend?
9. Is that person also friends with others from your family?
10. Do all of your friends know each other?
11. Can you describe your favorite memory of your friends?

Module: Networks

1. What person or people do you think are the most influential in the community? Why?
2. Are you a friend of that person? Do you visit them often?
3. Are your friends or family members related to that person? How?
4. Are there any other people besides the ones you mentioned that are also considered somehow influential?
5. Are there any institutions (e.g., church, hospital, school, etc.) here?
6. Are you part of any of them?
7. What about organizations from the town? Are you part of any of them?

8. Do you go to the town frequently? For what reason?
9. Do you attend school/go to church/clubs/concerts/sports events/other activities there? How often?
10. Are you part of any sport team? Musical group or band?
11. How is your relationship with the local authorities?
12. How is your relationship with your neighbors?
13. When you hang out, do you do it here or do you go somewhere else?
14. Do you know a lot of people from other places?
15. Do your family and friends also know those people?
16. Have you traveled? Where have you been?
17. Have you lived outside this community? Where?
18. Did you like living there? Why or why not?
19. Do you prefer to live here or elsewhere?
20. Can you describe your favorite place to me? Why do you like it?
21. Do you like it here? Why or why not?
22. What would be your favorite place to live in?
23. Do you like cities? Why or why not?
24. Would you move to the town? Where would you go?

Module: Community

1. What can you tell me about this community?
2. Do you know when it was founded?
3. Have you heard about the beginnings of the community?
4. How much has it changed?
5. Are there things here now that were not here before?
6. Are there stories that people always tell?
7. Is this a good community? Do people help each other?
8. If so, how do they do it?

Appendix D

Stimuli Corpus I Spanish Version

Participante No. ____

Fecha: _____ Hora: _____

Instrucciones para el/la investigador/a:

El/la investigador/a debe utilizar el dialecto local durante toda la entrevista de manera que se comunique con los participantes en una manera casual. Al informarles a los participantes sobre la naturaleza del estudio, no debe revelar que es un estudio sobre la lengua (para evitar que modifiquen su pronunciación) sino más bien indicarles que es un estudio sobre la memoria y cómo la gente recuerda cosas. Además, el/la investigador/a debe mencionar que la meta del estudio es escribir/construir la historia de la comunidad y que para eso se necesitan las historias personales y los recuerdos de la gente que nació y vive actualmente allí.

Cada participante debe ser informado/a sobre el tipo de estudio que se está llevando a cabo (en la forma en que se describió arriba) y antes de comenzar la entrevista debe firmar el formulario de consentimiento de participación. Después de firmarlo, el/la investigador/a debe usar las preguntas de más abajo como guía.

Entrevistas sociolingüísticas: La información debe recolectarse como si el/la entrevistador/a estuviera hablando de manera informal con los participantes y no como si estuvieran en una entrevista.

Entrevistas Sociolingüísticas

Guión: Estamos haciendo un estudio sobre la memoria y cómo la gente recuerdas las cosas.

También estamos escribiendo la historia de la comunidad así como de otras aldeñas.

Necesitamos su ayuda para reconstruir la historia con sus propias historias y recuerdos. Vamos a comenzar....

Información demográfica

1. ¿En qué año nació? ¿Qué edad tiene?
2. ¿Dónde nació/En qué lugar? ¿Cuál fue el primer lugar donde vivió?
3. Después de eso, ¿en qué otros lugares ha vivido?
4. ¿Por cuánto tiempo ha vivido en ese/esos lugar/es?
5. ¿Siempre ha vivido en la misma casa?
6. ¿Puede describir su casa? ¿Cómo está organizada? Si entro en su casa, ¿qué es lo primero que veo?
7. ¿Su casa siempre ha sido así? ¿Me podría decir cómo ha cambiado?
8. ¿Se acuerda de la casa en la que creció? ¿Puede describirla?

Módulo: Familia

Vamos a hablar un poco sobre su familia:

1. ¿Con quién vive?
2. ¿Tiene hijos?
3. ¿Cuántos?
4. ¿Están sus hijos casados?
5. ¿Tiene nietos?
6. ¿Y sus padres? ¿Viven?
7. ¿Dónde nacieron?
8. ¿Sus padres trabajan? ¿Qué hacen?
9. ¿Cómo corregían en casa?
10. ¿Cuál de sus padres era más estricto?
11. Cuando estaba creciendo, ¿tenía una buena relación con sus padres? ¿Podía hablar de cualquier cosa con ellos?
12. ¿Cómo era su padre? ¿Y su madre?
13. ¿Le dejaban salir con sus amigos?
14. ¿Tiene hermanos? ¿Cuántos? ¿Qué hacen?
15. ¿Tienes sobrinos? ¿Cómo se lleva con ellos?
16. ¿Cómo es su relación con su familia? ¿La ve con frecuencia? ¿Su familia es unida?
17. ¿Se reúnen en ocasiones especiales? ¿Con qué frecuencia?

Módulo: Matrimonio

1. ¿Es casado/a?
2. ¿Dónde nació su esposo/a?
3. ¿Su esposo/a siempre ha vivido aquí?
4. ¿Por cuánto tiempo han estado casados?
5. ¿Cómo es su relación con su esposo/a?
6. ¿Cómo es su relación con la familia de su esposo/a?
7. ¿Cómo son?
8. ¿Los visita con frecuencia? ¿Ellos le visitan a usted?

Módulo: Trabajo

1. ¿A qué se dedica?
2. ¿Tiene un empleo?
3. ¿Dónde trabaja?
4. ¿Cuánto tiempo tiene trabajando allí?
5. ¿Qué hace exactamente en su trabajo?
6. ¿Trabaja regularmente solo/a o con otras personas? ¿Con quién/cuántas personas? ¿Qué cosas hacen juntos en el trabajo?
7. ¿Regularmente sale con sus compañeros/as de trabajo?
8. ¿Qué hacen cuando salen?
9. ¿Le visitan en su casa? ¿Usted les visita a ellos?
10. ¿Recuerda su primer trabajo?
11. ¿Por cuánto tiempo trabajo allí?

12. Después de eso, ¿dónde trabajó?
13. ¿Todavía tiene contacto con sus antiguos compañeros de trabajo?
14. ¿Le gusta/gustaba su trabajo?
15. ¿Hay algo que siempre haya querido hacer?

Módulo: Educación

1. ¿Había escuelas donde creció?
2. ¿Quedaban lejos de su casa?
3. ¿Usted fue a la escuela? ¿Cómo iba?
4. ¿Hasta qué curso llegó?
5. ¿Recuerda sus profesores? ¿Quién era su profesor/a favorito/a? Por qué?
6. ¿Quién era su profesor/a menos favorito/a? Por qué?
7. ¿Cuáles eran algunos de los juegos que jugaba en la escuela?
8. ¿Qué otras cosas hacía en la escuela?
9. ¿Le gustaba ir a la escuela? Por qué o por qué no?
10. ¿Podía llevar a sus amigos a su casa cuando era pequeño/a?
11. ¿Todavía conserva algunos amigos de esa época?

Módulo: Amigos(as)/Compañeros(as)

1. ¿Tiene muchos amigos/as?
2. ¿Quién es su mejor amigo/a?
3. ¿Cuándo lo/la conoció?
4. ¿Cuántos de sus amigos viven aquí?
5. ¿Dónde viven sus otros amigos?
6. ¿Quiénes son las cinco personas con las que más contacto tiene/sale/habla o que considera más cercanas?
7. ¿Es amigo/a de todos sus vecinos?
8. De los vecinos, ¿quién es su mejor amigo/a?
9. ¿Esa persona también es amiga de otros miembros de su familia?
10. ¿Todos sus amigos se conocen entre sí?
11. ¿Podría escribir su recuerdo favorito con un amigo/a?

Módulo: Redes

1. ¿Qué persona o personas piensa que son más influyentes en la comunidad? Por qué?
2. ¿Es amigo/a de esa persona? ¿La visita con frecuencia?
3. ¿Están sus amigos o familiares relacionados con esa persona? ¿Cómo?
4. ¿Hay alguna otra persona aparte de la que menciona que se considera influyente?
5. ¿Hay alguna organización aquí como iglesias, hospitales, escuelas, etc.?
6. ¿Usted forma parte de alguna de esas organizaciones?
7. ¿Y de las organizaciones del pueblo? ¿Es usted parte de alguna de ellas?
8. ¿Va al pueblo con frecuencia? ¿Con qué motivo?

9. ¿Va a la escuela/iglesia/club/concierto/eventos deportivos u otras actividades aquí?
¿Con que frecuencia?
10. ¿Forma parte de algún equipo deportivo? ¿Grupo musical o banda?
11. ¿Cómo es su relación con las autoridades locales?
12. ¿Cómo es su relación con sus vecinos?
13. Cuando sale, ¿lo hace aquí o va a algún otro lugar?
14. ¿Conoce mucha gente de otros lugares?
15. ¿Su familia y amigos también conocen mucha gente?
16. ¿Ha viajado? ¿Dónde ha ido?
17. ¿Ha vivido fuera de la comunidad? ¿Dónde?
18. ¿Le gustaba vivir allí? ¿Por qué?
19. ¿Prefiere vivir aquí o en otro lugar?
20. ¿Me puede describir su lugar favorito? Por qué le gusta?
21. ¿Le gusta esta comunidad? ¿Por qué o por qué no?
22. ¿Cuál es su lugar favorito para vivir?
23. ¿Le gustan las ciudades? Por qué o por qué no?
24. ¿Se mudaría fuera de esta comunidad? ¿Adónde?

Módulo: Comunidad

1. ¿Qué puede decir acerca de esta comunidad?
2. ¿Sabe cuándo la fundaron?
3. ¿Ha escuchado sobre los orígenes de esta comunidad?
4. ¿Cuánto ha cambiado esta comunidad?
5. ¿Ahora hay cosas aquí que no estaban antes?
6. ¿Hay historias que la gente siempre cuenta?
7. ¿Esta comunidad es buena? ¿La gente se ayuda entre sí?
8. Si lo hace, ¿cómo se ayudan?

Appendix E

Stimuli Corpus II English Version

Instructions for the researcher/fieldworker:

The researcher/fieldworker must use the local dialect throughout the interview with the participants and talk in a casual manner so that the participants also use a casual speech style. When informing the participants about the nature of the study s/he should not reveal that it is a study about language (so that participants are not aware of their pronunciations when completing the activities) but rather to let them know that it is about memory and how people remember things. Also, the researcher should mention that the ultimate goal of the study is to write/reconstruct the history of the community and that in order to reconstruct it we are gathering personal stories and memories of the people that were born and currently live there.

Every participant must be informed about the type of study we are conducting (in the way described above) and before beginning the interview they must sign the Consent Form. Once the participants have signed the consent form, the researcher/fieldworker will use the questions below as a guide.

Sociolinguistic interviews: In this part, the information must be gathered as if the researcher were chatting in a very informal way with the participants and not as if interviewing him/her.

PART 1: INTERVIEW

1) Demographics

1. In what year were you born? How old are you?
2. Where were you born/In what town?
3. What about your parents? Where were they born?
4. What was the first place you lived in? After that, in what other places have you lived in?
5. For how long have you been living here?
6. Can you describe your house for me? How is it organized? If I enter your house, what is the first thing I see?
7. Were there schools where you grew up?
8. Did you attend school? What was the highest degree you got?
9. Did you remember your first job?
10. For how long did you work there?
11. After that, where did you work?
12. What do you do now?

2) *Module: Family*

Let's talk about your family:

1. Whom do you live with?

2. Do you have children?
3. How many?
4. Are your children married?
5. Do you have grandchildren?
6. What about your parents? Are they alive?
7. Where were they born?
8. Do your parents work? What do they do?
9. How did they discipline at home?
10. Which of your parents was the strictest?
11. While growing up, did you have a good relationship with your parents? Could you talk about anything with them?
12. What was your father like? And your mother?
13. Did your parents let you hang out with friends?
14. Do you have siblings? How many? What do they do?
15. Do you have nephews and nieces? Are you close to them?
16. How is your relationship with your family? Do you see them often? Are you a close family?
17. Do you have family gatherings? How often?

3) Module: Marriage

1. Are you married?
2. Where was your spouse born?
3. Did your spouse always live here?
4. For how long have you been married?
5. How is your relationship with your spouse?
6. How is your relationship with your in-laws?
7. What type of people are they?
8. Do you visit them often? Do they visit you often?

4) Module: School

1. Were there schools where you grew up?
2. Was it far from home? How did you get there?
3. Did you attend school?
4. What was the most advanced degree you got?
5. Do you remember your teachers? Who was your favorite teacher? Why?
6. Who was your least favorite teacher? Why?
7. What were some of the games you played at school?
8. What other things did you do at school?
9. Did you like attending school? Why or why not?
10. Could you bring friends home when you were growing up?
11. Do you still have friends from school?

5) Module: Peers/Friends

1. Do you have many friends?
2. When did you meet your best friend?

3. How many of your friends live here?
4. Where do your other friends live?
5. Who are the five people you like to hang out the most?
6. Are you friends with all your neighbors?
7. From your neighbors, who is your best friend?
8. Is that person also friends with others from your family?
9. Do all of your friends know each other?
10. Can you describe your favorite memory of your friends?

PART 2. QUESTIONS:

Script: For the following questions, please provide the answer you think is most appropriate.

P

- 1) In an office who is the person that answers the phone? Answer: Receptionist
- 2) When the government officials are corrupts, you can say that in that government there is...? Answer: Corruption
- 3) You could hold these papers with a staple or with a...? Answer: Clip
- 4) What do you call the red sauce that you put on sandwiches? Answer: Catchup

T

- 1) If you want to use your insurance you need to show something like this (show the insurance ID to the participant). What do you call this? Answer: Insurance ID (Carnet)
- 2) In a wedding you stand in a line to serve yourself food from a...? Answer: Buffett
- 3) Maradona is one of the best players of what? Answer: Futbol
- 4) Besides in a cabinet, in a house clothing can be kept in a...? Answer: Closet

K

- 1) People that act in soap operas are... Answer: Actors
- 2) Before people used to plow with oxen but now they do it with what? Answer: Tractors
- 3) There is a dish that you made with beef and onions, how do you call it? Answer: Steak with onions (Bistec encebollado)
- 4) What is the brand/name of these rounded crackers? Answer: Picnic
- 5) A man that attracts many women is said to be...? Answer: Attractive

- 6) If I tell you that somebody lives in Calle El Sol # 5 in Santiago, I am giving you his/her...?
Answer: Address (Direccion)

B

- 1) What is the brand/name of the red soda? Answer: Country Club
- 2) An obsessed person suffers of an...? Answer: Obsession
- 3) There is a bachata that says "is not love, is not love, it is an..." Answer: Obsession
- 4) Another word for completely is...? Answer: Absolutely
- 5) When something absorbs you can say that it is... Answer: Absorbent

D

- 1) A sick person does not have good... Answer: Health (Salud)
- 2) A person that lives alone, lives in... Answer: Solitude (Soledad)
- 3) When a person is admired by other people, that person is... Answer: Admirable
- 4) The Catholic Church celebrates Lent but also celebrates... Answer: Advent
- 5) What is the opposite of goodness? Answer: Evil (La maldad)
- 6) There are rich people that help poor people doing what? Answer: Charity (Obras de caridad)

G

- 1) After the doctor checks you, s/he will give you a...? Answer: Diagnostic
- 2) When somebody does not want to be recognized remain...? Answer: Incognito
- 3) In the Bible there are two Marys, Jesus' mother and another one. What was the name of the other Mary? Answer: Maria Magdalena
- 4) When people are drunk, they walk doing this (show the participants a zigzag movement). What is this movement?

Appendix F

Stimuli Corpus II Spanish Version

Instrucciones para el/la investigador/a:

El/la investigador/a debe utilizar el dialecto local durante toda la entrevista de manera que se comunique con los participantes en una manera casual. Al informarles a los participantes sobre la naturaleza del estudio, no debe revelar que es un estudio sobre la lengua (para evitar que modifiquen su pronunciación) sino más bien indicarles que es un estudio sobre la memoria y cómo la gente recuerda cosas. Además, el/la investigador/a debe mencionar que la meta del estudio es escribir/construir la historia de la comunidad y que para eso se necesitan las historias personales y los recuerdos de la gente que nació y vive actualmente allí.

Cada participante debe ser informado/a sobre el tipo de estudio que se está llevando a cabo (en la forma en que se describió arriba) y antes de comenzar la entrevista debe firmar el formulario de consentimiento de participación. Después de firmarlo, el/la investigador/a debe usar las preguntas de más abajo como guía.

Entrevistas sociolingüísticas: En esta parte, la información debe recolectarse como si el/la entrevistador/a estuviera hablando de manera informal con los participantes y no como si estuvieran en una entrevista.

PARTE 1: ENTREVISTA

Información demográfica

1. ¿En qué año nació? ¿Qué edad tiene?
2. ¿Dónde nació/En qué lugar?
3. Y sus padres? Donde nacieron?
4. Cual fue el primer lugar donde vivió?
5. Después de eso, ¿en qué otros lugares ha vivido?
6. ¿Por cuánto tiempo ha vivido en ese/esos lugar/es?
7. ¿Siempre ha vivido en la misma casa?
8. ¿Puede describir su casa? ¿Cómo está organizada? Si entro en su casa, ¿qué es lo primero que veo?
9. ¿Había escuelas donde creció? ¿usted fue a la escuela?
10. ¿Hasta que curso llegó? ¿Recuerda su primer trabajo?
11. ¿Por cuánto tiempo trabajó allí? Después de eso, ¿Dónde trabajó?
12. ¿Qué hace ahora?

Módulo: Familia

Vamos a hablar un poco sobre su familia:

1. ¿Con quién vive?
2. ¿Tiene hijos?
3. ¿Cuántos?
4. ¿Están sus hijos casados?
5. ¿Tiene nietos?
6. ¿Y sus padres? ¿Viven?
7. ¿Dónde nacieron?
8. ¿Sus padres trabajan? ¿Qué hacen?
9. ¿Cómo corregían en casa?
10. ¿Cuál de sus padres era más estricto?
11. Cuando estaba creciendo, ¿tenía una buena relación con sus padres? ¿Podía hablar de cualquier cosa con ellos?
12. ¿Cómo era su padre? ¿Y su madre?
13. ¿Le dejaban salir con sus amigos?
14. ¿Tiene hermanos? ¿Cuántos? ¿Qué hacen?
15. ¿Tienes sobrinos? ¿Cómo se lleva con ellos?
16. ¿Cómo es su relación con su familia? ¿La ve con frecuencia? ¿Su familia es unida?
17. ¿Se reúnen en ocasiones especiales? ¿Con qué frecuencia?

Módulo: Matrimonio

1. ¿Es casado/a?
2. ¿Dónde nació su esposo/a?
3. ¿Su esposo/a siempre ha vivido aquí?
4. ¿Por cuánto tiempo han estado casados?
5. ¿Cómo es su relación con su esposo/a?
6. ¿Cómo es su relación con la familia de su esposo/a?
7. ¿Cómo son?
8. ¿Los visita con frecuencia? ¿Ellos le visitan a usted?

Módulo: Educación

1. ¿Había escuelas donde creció?
2. ¿Quedaban lejos de su casa?
3. ¿Usted fue a la escuela? ¿Cómo iba?
4. ¿Hasta qué curso llegó?
5. ¿Recuerda sus profesores? ¿Quién era su profesor/a favorito/a? Por qué?
6. ¿Quién era su profesor/a menos favorito/a? Por qué?
7. ¿Cuáles eran algunos de los juegos que jugaba en la escuela?
8. ¿Qué otras cosas hacía en la escuela?
9. ¿Le gustaba ir a la escuela? Por qué o por qué no?
10. ¿Podía llevar a sus amigos a su casa cuando era pequeño/a?
11. ¿Todavía conserva algunos amigos de esa época?

Módulo: Amigos(as)/Compañeros(as)

1. ¿Tiene muchos amigos/as?
2. ¿Quién es su mejor amigo/a?
3. ¿Cuándo lo/la conoció?
4. ¿Cuántos de sus amigos viven aquí?
5. ¿Dónde viven sus otros amigos?
6. ¿Quiénes son las cinco personas con las que más contacto tiene/sale/habla o que considera más cercanas?
7. ¿Es amigo/a de todos sus vecinos?
8. De los vecinos, ¿quién es su mejor amigo/a?
9. ¿Esa persona también es amiga de otros miembros de su familia?
10. ¿Todos sus amigos se conocen entre sí?
11. ¿Podría escribir su recuerdo favorito con un amigo/a?

PARTE 2. PREGUNTAS:

Guión: Por favor, dé la respuesta más apropiada a las siguientes preguntas.

P

- 5) En una oficina, ¿cómo se llama la persona que responde el teléfono? Respuesta: Receptionista
- 6) Cuando los funcionarios públicos son corruptos, se dice que en el gobierno hay...? Respuesta: Corrupción
- 7) Para agarrar papeles, usted puede usar una grapa o un...? Respuesta: Clip
- 8) ¿Cómo se le llama a la salsa roja que se pone en los emparedados? Respuesta: Catchup

T

- 5) Si quiere usar su seguro médico necesita mostrar algo como esto (mostrar la identificación al entrevistado). ¿Cómo se llama esto? Respuesta: Carnet
- 6) En una boda usted se para en una fila para servirse comida de un...? Respuesta: Buffett
- 7) Maradona es uno de los mejores jugador de qué? Respuesta: Fútbol
- 8) En una casa, la ropa puede guardarse en una armario o en un ...? Respuesta: Closet

K

- 7) Las personas que trabajan en las noveles se llaman...? Respuesta: Actores
- 8) Antes, la gente usaba bueyes para arar pero ahora lo hacen con qué? Repuesta: Tractores

- 9) Hay un plato que se hace con carne de res y cebolas, ¿cómo se llama? Respuesta: Bistec encebollado
- 10) ¿Cómo se llaman esas galletas saladas redondas? Respuesta: Picnic
- 11) Un hombre que atrae muchas mujeres se dice que es un hombre...? Respuesta: Atractivo
- 12) Si yo le digo a alguien que vive en la Calle El Sol # 5 en Santiago, le estoy dando mi...? Respuesta: Dirección

B

- 6) ¿Cuál es la marca de los refrescos rojos? Respuesta: Country Club
- 7) Una persona obsesionada sufre de una...? Respuesta: Obsesión
- 8) Otra palabra para completamente es...? Respuesta: Absolutamente
- 9) Cuando algo absorbe se dice que es...? Respuesta: Absorbente

D

- 7) Una persona enferma no goza de buena...? Respuesta: Salud
- 8) Una persona que vive sola vive en...? Respuesta: Soledad
- 9) Cuando una persona es admirada, esa persona es ...? Respuesta: Admirable
- 10) La iglesia católica celebra la cuaresma pero también celebra el tiempo de ...? Respuesta: Adviento
- 11) ¿Qué es lo opuesto de la bondad? Respuesta: La maldad
- 12) Hay gente con dinero que ayuda los pobres haciendo obras de...? Respuesta: Caridad

G

- 5) Después que el doctor lo/la examina, le da un ...? Respuesta: Diagnóstico
- 6) Cuando alguien no quiere que lo reconozcan, va de...? Respuesta: Incógnito
- 7) En la biblia hay dos Marías, la madre de Jesús y María...? Respuesta: Magdalena
- 8) Cuando la gente se emborracha, camina haciendo (hacer una forma de zigzag para el entrevistado)..? Respuesta: Zig Zag

Appendix G

TABLE XLI. APPENDIX G. PARTICIPANTS' INFORMATION

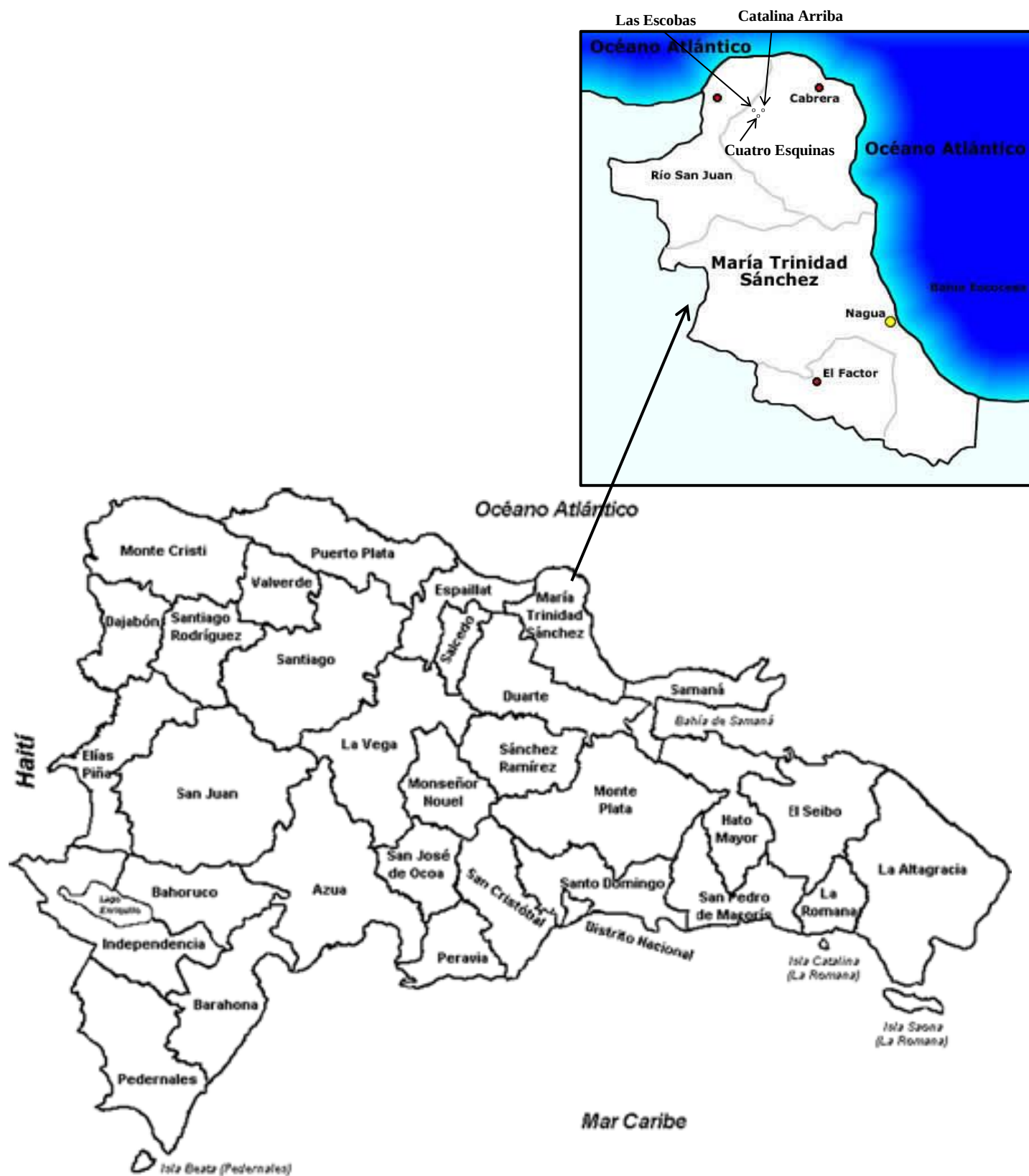
Part.	Gender	Age	Level of Educ.	Income	Occupation/Profession
1	Male	84	Primary	Lowest	Workman
2	Female	82	Primary	Lowest	Housewife
3	Male	79	Primary	Upper	Farmer/Businessman
4	Female	78	Primary	Lowest	Housewife
5	Female	76	Primary	Medium	Housewife
6	Female	76	Primary	Lowest	Housewife
7	Male	74	Primary	Med-Low	Retired Teacher/Security
8	Female	74	Primary	Lowest	Housewife
9	Female	71	Secondary	Medium	Housewife/Farmer
10	Female	69	Primary	Med-Low	Housewife
11	Female	69	Primary	Med-Upper	Housewife
12	Male	69	Primary	Lowest	Butcher/Workman
13	Male	67	Secondary	Lowest	Butcher
14	Female	66	Primary	Upper	Housewife
15	Male	65	Primary	Lowest	None
16	Female	65	Primary	Lowest	Janitor/Housewife
17	Male	65	Primary	Lowest	Artisan
18	Male	64	Primary	Med-Low	Farm Hand

TABLE XLII. APPENDIX G. PARTICIPANTS' INFORMATION (continued)

Part.	Gender	Age	Level of Educ.	Income	Occupation
19	Male	63	Primary	Lowest	Handicapped Workman
20	Male	61	Primary	Lowest	Workman
21	Female	60	Primary	Lowest	Domestic Helper
22	Male	59	Primary	Medium	Preacher/Labourers Supervisor
23	Female	57	Primary	Lowest	Housewife
24	Female	56	Primary	Lowest	Housewife
25	Male	53	Primary	Med-Low	Security
26	Female	51	Primary	Med-Low	Hotel Employee/Housewife
27	Male	50	Primary	Med-Low	Workman/ <i>Motoconcho</i>
28	Male	47	Primary	Medium	Gardener
29	Female	46	Primary	Lowest	Domestic Helper
30	Female	45	Secondary	Med-Low	Waitress
31	Female	45	Secondary	Med-Upper	Housewife/Businesswoman
32	Female	45	Higher	Med-Upper	Psychologist/Art School Director
33	Female	43	Secondary	Med-Low	Businesswoman/Housewife/Other
34	Female	39	Higher	Med-Upper	Architect/Housewife
35	Female	34	Secondary	Lowest	Housewife/Domestic Helper
36	Female	33	Secondary	Lowest	Housewife

Appendix H

Map of the Dominican Republic and Locations of Data Collection



Appendix I

Coding Sheet for Semi-vocalization in Cibaen̄o Spanish

LINGUISTIC VARIABLES AND VARIANTS

1) Dependent Variables	Code
L /l/	l
[j]	j
[Ø]	Ø
R /r/	r
[j]	j
[Ø]	Ø

INTRA-LINGUISTIC FACTORS:

2) Preceding Vowel	Code
U	u
O	o
E	e
A	a
3) Following Segment	Code
Vowel	v
Plosive	k
Fricative	s
Nasal	z
Pause	p
4) Syllabic Position	Code
Internal	i
Final	f
5) Stress of the Carrier	Code
Stressed	d
Unstressed	n
6) Stress of the Following Syllable	Code
Stressed	t
Unstressed	g

7) Grammatical Function	Code
Prosodic Word	P
Function Word	F

8) Type of Prosodic Word	Code
Pronoun	R
Noun	N
Adjective	D
Verb	V
Other	/

9) Type of Function Word	Code
Article	A
Preposition	T
Other	#

EXTRA-LINGUISTIC FACTORS

10) Sex	Code
Male	h
Female	m

11) Age	Code
18-40	3
41-50	4
51-60	5
61-up	6

12) Income	Code	Wage Rates (RD\$)
Quintil 1 (lowest)	L	3,431.70 month/15,805.50 year
Quintil 2 (medium-low)	B	5,877.00 month /27,067.90 year
Quintil 3 (medium)	M	8,015.50 month /36,917.00 year
Quintil 4 (medium upper)	E	11,452.80 month /52,748.50 year
Quintil 5 (upper)	U	25,553.70 month /117,695.10 year

13) Level of Education	Code
Primary	7
High School	8
College/Graduate	9

14) Speech Style	Code
Formal	\$
Informal	@

NETWORK RELATED FACTORS

15) Density	Code
More dense	S
Less dense	C

16) Multiplexity	Code
Uniplex	I
Multiplex	O

17) Network Composition	Code
Relatives and neighbors	Q
Only neighbors	V
Only relatives	B
Relatives + friends	X
Neighbors + friends	W
Mix relatives + neighbors + friends	H

18) Network Membership	Code
Only inside (the community)	Y
Inside/Outside	G
Mostly outside	Z

19) Attitude towards the community	Code
Positive	+
Negative	&
Neutral	%

20) Interactions outside the community	Code
Rarely outside	Y
Sporadically outside	š
Frequently outside	ž

21) Mobility (attitude towards mobility)	Code
Would move (under some conditions)	y
Would not move	w
Unknown	?

22) Stay	Code
Similar rural town	~
City	i
Capital	!
No	\

23) Degree of Territorial Loyalty (Tie)	Code
Strong	>
Weak	<

UNIVERSITY OF ILLINOIS
AT CHICAGO

20130418-74248-1

May 24, 2013

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Hispanic and Italian Studies
601 S Morgan Street
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Chicago, IL 60607
Phone: (773) 816-1970

**RE: Research Protocol # 2013-0418
“Dialectal Variation in Dominican Spanish (Resubmission of UIC Research Protocol #2009-0208)”**

Your Claim of Exemption was reviewed on May 24, 2013 and it was determined that your research meets the criteria for exemption. You may now begin your research.

<u>Exemption Period:</u>	May 24, 2013 – May 24, 2016
Performance Site(s):	UIC
Subject Population:	Adult (18+ years) subjects only
Number of Subjects:	300

The specific exemption category under 45 CFR 46.101(b) is:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy. Please be aware of the following UIC policies and responsibilities for investigators:

1. Amendments You are responsible for reporting any amendments to your research protocol that may affect the determination of the exemption and may result in your research no longer being eligible for the exemption that has been granted.
2. Record Keeping You are responsible for maintaining a copy all research related records in a secure location in the event future verification is necessary, at a minimum these documents include: the research protocol, the claim of exemption application, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to subjects, or any other pertinent documents.
3. Final Report When you have completed work on your research protocol, you should submit a final report to the Office for Protection of Research Subjects (OPRS).
4. Information for Human Subjects UIC Policy requires investigators to provide information about the research protocol to subjects and to obtain their permission prior to their participating in the research. The information about the research protocol should be presented to subjects in writing or orally from a written script. When appropriate, the following information must be provided to all research subjects participating in exempt studies:
 - a. The researchers affiliation; UIC, JBVMAC or other institutions,
 - b. The purpose of the research,
 - c. The extent of the subject's involvement and an explanation of the procedures to be followed,
 - d. Whether the information being collected will be used for any purposes other than the proposed research,

- e. A description of the procedures to protect the privacy of subjects and the confidentiality of the research information and data,
- f. Description of any reasonable foreseeable risks,
- g. Description of anticipated benefit,
- h. A statement that participation is voluntary and subjects can refuse to participate or can stop at any time,
- i. A statement that the researcher is available to answer any questions that the subject may have and which includes the name and phone number of the investigator(s).
- j. A statement that the UIC IRB/OPRS or JBVMAC Patient Advocate Office is available if there are questions about subject's rights, which includes the appropriate phone numbers.

Please be sure to:

→ Use your research protocol number (2013-0418) on any documents or correspondence with the IRB concerning your research protocol.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact the OPRS office at (312) 996-1711 or me at (312) 355-2908. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Charles W. Hoehne

Assistant Director

Office for the Protection of Research Subjects

cc: Rosilie Hernandez-Pecoraro, Hispanic and Italian Studies, M/C 315

Rafael Nunez-Cedeno, Hispanic and Italian Studies, M/C 315

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